



CITY COUNCIL AGENDA
CITY HALL, 291 N. MAIN STREET, PORTERVILLE, CA 93257
and 1033 HILGARD AVENUE, #219, LOS ANGELES, CA 90024
MAY 15, 2018, 5:30 PM

Call to Order

Roll Call

ORAL COMMUNICATIONS

This is the opportunity to address the City Council on any matter scheduled for Closed Session. Unless additional time is authorized by the Council, all commentary shall be limited to three minutes.

CITY COUNCIL CLOSED SESSION:

A. Closed Session Pursuant to:

- 1** - Government Code Section 54956.8 – Conference with Real Property Negotiators/Property: 185 W. H Street, APN:252-223-016. Agency Negotiator: John Lollis. Negotiating Parties: City of Porterville and Charline Scow . Under Negotiation: Terms and Price.
- 2** - Government Code Section 54956.8 – Conference with Real Property Negotiators/Property: APN:248-043-014, 248-043-015, 248-043-016, 248-043-017, 243-043-018, 253-050-089 and 253-050-093. Agency Negotiator: John Lollis. Negotiating Parties: City of Porterville and Gregory Shelton. Under Negotiation: Terms and Price.
- 3** - Government Code Section 54957.6 – Conference with Labor Negotiator. Agency Negotiator: John Lollis, Patrice Hildreth and Che Johnson. Employee Organizations: Porterville Peace Officers Association; Management & Confidential Series; Porterville City Employees Association; Public Safety Support Unit; Porterville City Firefighters Association; Fire Officer Series; and Unrepresented Management employees.
- 4** - Government Code Section 54956.95 – Liability Claim: Claimant: Carol Mills. Agency claimed against: City of Porterville.
- 5** - Government Code Section 54956.95 – Liability Claim: Application to File a Late Claim. Applicant/Claimant: James K. Rummell. Agency claimed against: City of Porterville.
- 6** - Government Code Section 54956.9(d)(1) – Conference with Legal Counsel – Existing Litigation: City of Porterville v. Greg L. Woodard and Cinda D. Woodard, Trustees of the Woodard Family Revocable Trust of August 10, 2006, Tulare County Superior Court Case No. 273165.
- 7** - Government Code Section 54956.9(d)(1) – Conference with Legal Counsel – Existing Litigation: Maria Ventura v. Jennifer Rutledge and City of Porterville, U.S. District Court, Eastern District, Case No. 1:17-CV-00237-DAD-SKO.
- 8** - Government Code Section 54956.9(d) (3) – Conference with Legal Counsel –

Anticipated Litigation – Significant Exposure to Litigation: One (1) case in which facts are not yet known to potential plaintiff.

**6:30 P.M. RECONVENE OPEN SESSION AND REPORT ON
REPORTABLE ACTION TAKEN IN CLOSED SESSION**

Pledge of Allegiance Led by Council Member Monte Reyes
Invocation

PRESENTATIONS

Employee of the Month - Cale Hosfeldt
Spring Expressions Chalk Art Contest Winners
INTERNNECT - Mangini Associates Inc. Architectural Internship Program

AB 1234 REPORTS

This is the time for all AB 1234 reports required pursuant to Government Code § 53232.3.

1. Local Agency Formation Commission (LAFCO) - May 2, 2018
3. Tulare County Economic Development Corp. (TCEDC) - May 4, 2018
2. Eastern Tule Groundwater Sustainability Agency (GSA) - May 3, 2018
4. SJVAPCD Governing Board - May 10, 2018

REPORTS

This is the time for all committee/commission/board reports; subcommittee reports; and staff informational items.

- I. City Commission and Committee Meetings
 1. Parks & Leisure Services Commission - no quorum on May 3, 2018
 2. Library & Literacy Commission - May 8, 2018
 3. Arts Commission - April 25, 2018
 4. Animal Control Commission
 5. Youth Commission - May 14, 2018
 6. Transactions and Use Tax Oversight Committee (TUTOC) - May 10, 2018
- II. Staff Informational Reports
 1. Water Conservation Phase IV Status Update

ORAL COMMUNICATIONS

This is the opportunity to address the Council on any matter of interest, whether on the agenda or not. Please address all items not scheduled for public hearing at this time. Unless additional time is authorized by the Council, all commentary shall be limited to three minutes.

CONSENT CALENDAR

All Consent Calendar Items are considered routine and will be enacted in one motion. There will be no separate discussion of these matters unless a request is made, in which event the item will be removed from the Consent Calendar. All items removed from the Consent Calendar for further discussion will be heard at the end of Scheduled Matters.

1. Authorization to Replace Guardrail

Re: Considering approval to initiate a Purchase Order to C&W Construction Specialties in an amount not to exceed \$15,555 for the replacement of a guardrail located on North Highland Drive, south of 1425 North Highland Drive.

2. Authorization to Purchase Ultrasonic Meter Equipment

Re: Considering approval to purchase two Ultrasonic Electronic Flow Meters from Grainger for an amount not to exceed \$12,070.

3. Approval of Payment to the Tulare County Treasurer

Re: Considering approval of payment to the Tulare County Treasurer in the amount of \$57,000 for the property at issue in the eminent domain case entitled City of Porterville v. Greg L. Woodard and Cinda D. Woodard, Trustees of the Woodard Family Revocable Trust of August 10, 2006, Tulare County Superior Court case no. 273165.

4. Authorization to Augment Contract Budget for Murry Park Playground Shade Structure Project

Re: Considering approval to augment the contract budget \$2,100.00 for the Murry Park Playground Shade Structure Project.

5. Authorization to Advertise for Bids for the Airfield Pavement Rehabilitation Project and for the Gates, Fence and Access Control Improvement Project at the Airport

Re: Considering authorization to advertise for bids on the airfield pavement rehabilitation project and for the gates, fence and access control improvement project at the airport.

6. Authorization to Award the Contract for the 87 South G Street Demolition Project

Re: Considering award of project to H D Matthews Demolition & Excavation in the amount of \$24,995 for the project consisting of the demolition of a 1,224 square foot, single family residence, and 432 square foot detached garage and the clearing of any and all other structures and debris from the property.

7. Authorization to Apply for Funding from the FTA's Low or No Emission Grant

Program

Re: Considering approval of a resolution authorizing staff to submit an application for funding to the Federal Transit Administration's FY 2018 Low or No Emission Grant Program.

8. **Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan Adoption**
Re: Considering adoption of a resolution approving Porterville's participation in the Tulare County Multi-jurisdictional Local Hazard Mitigation Plan.
9. **Intent to Set a Public Hearing to Consider Annual Adjustment of Fees by Application of the ENR Cost Index**
Re: Setting a Public Hearing for June 19, 2018, pursuant to Government Code Section 66026, to consider implementation of the City of Porterville's Impact Fee Engineering News-Record ("ENR") Cost Index auto escalator concerning park impact fees and connection fees.
10. **Authorization to Participate in Southern California Edison's Charge Ready Program for Transit Bus Electrification**
Re: Consideration of a resolution authorizing staff to submit an application to participate in Southern California Edison's Charge Ready Program.
11. **Request for Proclamation - Freedom Days in Porterville - June 14 through July 4, 2018**
Re: Consideration of a request to proclaim the period between June 14 and July 4, 2018, as "Freedom Days in Porterville."
12. **Department of Finance Population Update**
Re: Considering authorization to sign a request for State certification for the City of Porterville, January 1, 2018, at a population of 60,798.
13. **Assignment of Airport Lease - Lot 32C**
Re: Considering approval of the Assignment of the Airport Lease for Lot 32C between the City of Porterville and William Parham to Pamela D. Hughes, Trustee of the William E. Parham Irrevocable Trust u/t/d July 29, 2013.

A Council Meeting Recess Will Occur at 8:30 p.m., or as Close to That Time as Possible

PUBLIC HEARINGS

14. **Consideration of Approval of the Windsor Court Development Project**
Re: Consideration of a residential subdivision on West Henderson, between Westwood Street and the Friant Kern Canal (PRC 2017-029), to include the development of 80 detached single-family residential units on 16.77± acres of land (Assessor Parcel Numbers

240-050-033 and 034) with lots ranging from 4,375 to 9,932 square feet.

SECOND READINGS

15. Second Reading - Ordinance No. 1845 - An Ordinance Establishing By-District Elections

Re: Second Reading of Ordinance No. 1845, an ordinance relating to the election of city council members by districts, which was given first reading on May 1, 2018, and has been printed.

16. Second Reading - Ordinance No. 1846 - An Ordinance Approving Zone Change PRC 2018-014-Z

Re: Second Reading of Ordinance No. 1846, an ordinance approving Zone Change (PRC 2018-014), being a change of zone from RM-3 (High Density Residential) to PS (Public and Semi- Public) for the parcel located 310± feet west of Westwood Street, north of Henderson Avenue (APN 240-050-026), which was given first reading on May 1, 2018, and has been printed.

SCHEDULED MATTERS

17. Authorization to Make Arrangements with Tulare County to Regulate all Onsite Wastewater Treatment Systems Within City Limits

Re: Consideration of a resolution affirming the City's intention to make arrangements with Tulare County to regulate on-site wastewater treatment systems within the City's jurisdiction

18. Status and Review of Declaration of Local Emergency

Re: Consideration of the continuance of the Declaration of Local Emergency.

ORAL COMMUNICATIONS

OTHER MATTERS

CLOSED SESSION

Any Closed Session Items not completed prior to 6:30 p.m. will be considered at this time.

ADJOURNMENT - to the meeting of June 5, 2018.

In compliance with the Americans with Disabilities Act and the California Ralph M. Brown Act, if

you need special assistance to participate in this meeting, or to be able to access this agenda and documents in the agenda packet, please contact the Office of City Clerk at (559) 782-7464. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting and/or provision of an appropriate alternative format of the agenda and documents in the agenda packet.

Materials related to an item on this Agenda submitted to the City Council after distribution of the Agenda packet are available for public inspection during normal business hours at the Office of City Clerk, 291 North Main Street, Porterville, CA 93257, and on the City's website at www.ci.porterville.ca.us.



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: 1. Water Conservation Phase IV Status Update

SOURCE: Public Works

COMMENT: The City of Porterville has continued to implement an active water conservation approach; both conserving and providing flexibility to the community. The City transitioned from Phase III to Phase IV of the City's Water Conservation Plan, which became effective December 1, 2017. The Water Conservation Plan applies to all municipal water users within the city limits or not. As part of the Phase IV implementation, the City has reduced watering days to a one day per week watering schedule based on property address. If an address ends with an "odd" number, the watering day is Saturday; if an address ends with an "even" number, the watering day is Sunday. Watering is prohibited between the hours of 5 a.m. to 10 a.m. and 5 p.m. to 10 p.m., with no watering allowed Monday, Tuesday, Wednesday, Thursday or Friday. Watering of an outdoor landscape is prohibited during, and within 48 hours after, measurable rainfall, which is defined as greater than 0.01 of an inch.

Violations of prohibited activities are considered infractions and are punishable by fines of up to \$500 for each day in which the violation occurs. Any peace officer or employee of a public agency charged with enforcing laws and authorized to do so by ordinance may issue a citation to the violator. The City of Porterville will be responding to enforcement by issuing a Notice of Violation for all witnessed occurrences and staff will be processing all reported issues. Enforcement statistics for the month of April 2018 show that a total of 63 Notice of Violations were issued for water wasting; 14 resulted in an Administrative Citation.

Water production for April 2018 shows a 22% decrease from the 5-year average. The production for the month of April 2018 was 246 million gallons, which when compared to the production for the month of April 2013 of 325 million gallons, equates to a 29% decrease on system production. Residential consumption for April 2018 was 92.36 gallons per capita per day (GPCD).

Compliance with individual water supplier conservation requirements is based on cumulative savings. Cumulative tracking means that conservation savings will be added together from one month to the next and compared to the amount of water used during the same months in 2013. City Staff will be evaluating conservation totals in two formats: 1. Calculate the cumulative conservation totals for production as compared to production in 2013; and 2. Calculate cumulative conservation totals in relation to GPCD, in efforts to evaluate population growth impacts on production as compared to 2013. The cumulative total of Production for the City of Porterville's conservation efforts will reflect June 2015 through April 2018. Porterville's cumulative total Production

conservation through April 2018 is 23.9%. The cumulative total of GPCD for the City of Porterville's conservation efforts will reflect June 2015 through April 2018. Porterville's cumulative total GPCD conservation through April 2018 is 25.2%.

Under the February 2, 2016, emergency regulation, the City of Porterville received a revised conservation standard of 28% with an additional 2% reduction for climate adjustment, making the City's conservation standard 26%. After reviewing the Water Board's Self-Certification criteria for drought impacts to water supplies, the City of Porterville Council approved maintaining a self-imposed standard of 26%. The continuation of the current conservation goals keep a standardized message that the City has worked to develop in public outreach, provides resiliency and capacity to ensure three years of supply under drought conditions, meets the minimum 20% conservation standard defined in the City's Urban Water Management Plan, and assists the City toward meeting the requirements of the Sustainable Groundwater Management Act (SGMA).

The State Water Board continues to require monthly reporting to track what agencies are doing and how they perform throughout the year. Proposed permanent regulations, will require agency reporting to continue monitoring the performance of urban water conservation, with a preparedness to return back to a conservation standard if necessary.

RECOMMENDATION: Information Only

ATTACHMENTS:

1. Monthly Production Status April 2018
2. Monthly Production Status GPCD April 2018
3. Drought Response Phase IV Flyer

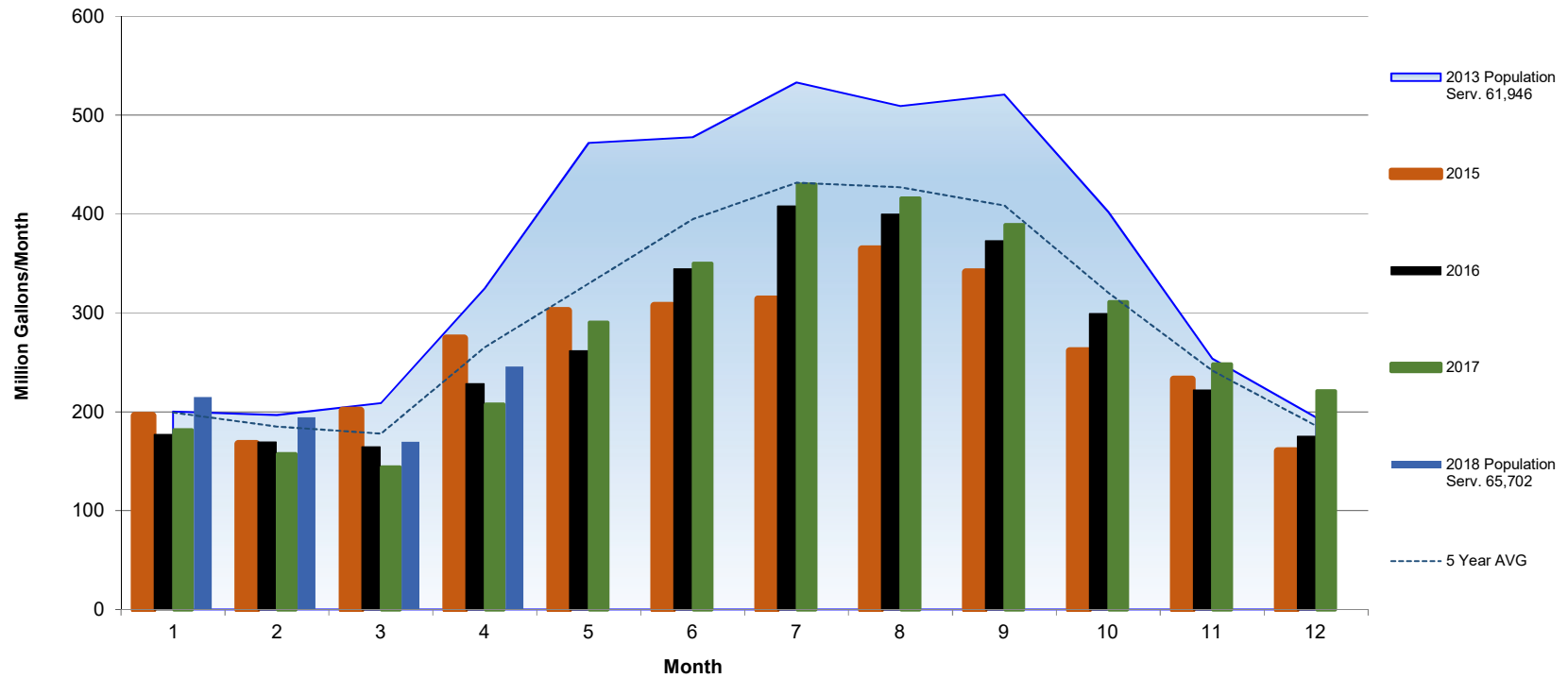
Appropriated/Funded:

Review By:

Department Director:

Final Approver: John Lollis, City Manager

Monthly Production Status & Cumulative Total June 2015 Through April 2018 Production Comparison to 2013 & 5 Year Average

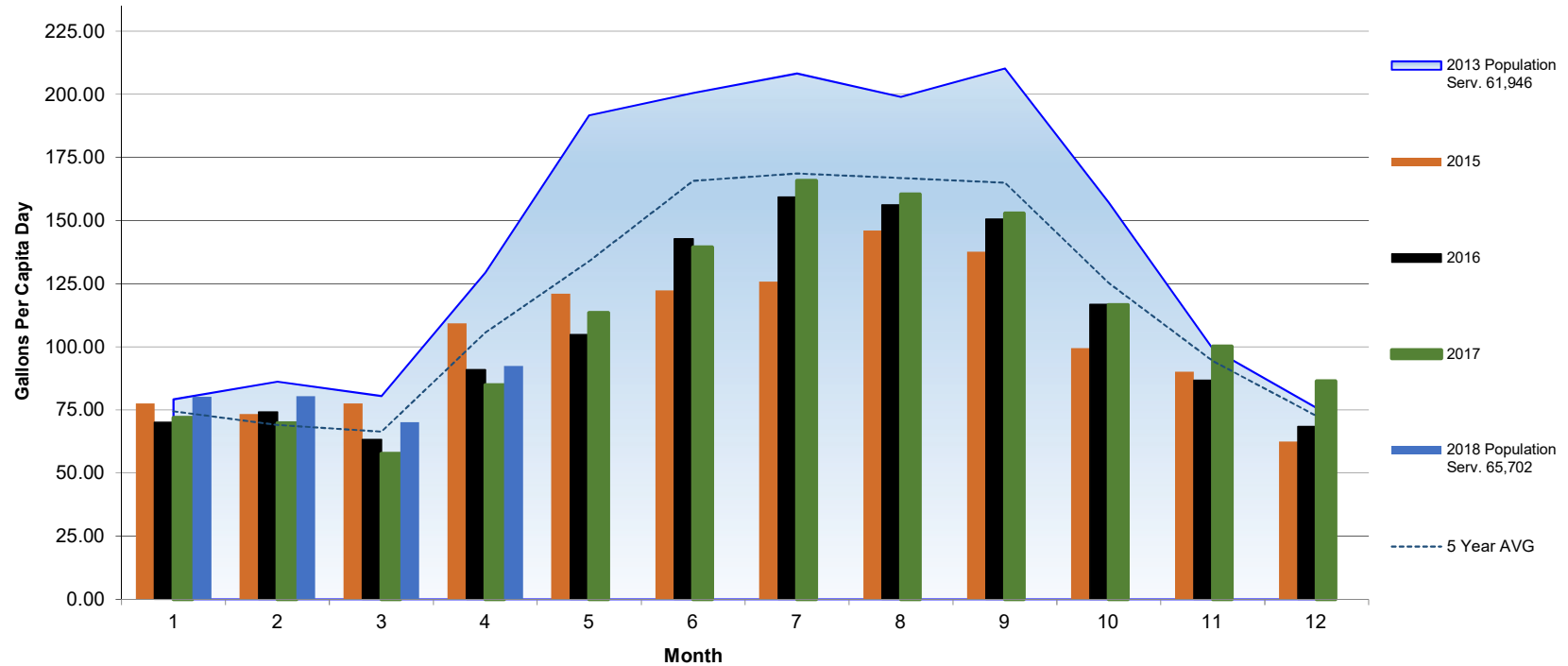


Production Cumulative Total 23.9%

2015	-2%	-15%	-4%	-16%	-36%	-36%	-41%	-28%	-35%	-35%	-8%	-18%
2016	-12%	-14%	-21%	-30%	-45%	-28%	-24%	-21%	-28%	-26%	-13%	-10%
2017	-9%	-20%	-31%	-36%	-38%	-27%	-19%	-18%	-25%	-23%	-2%	14%
2018	7%	-1%	-19%	-24%								

Percent Comparison to 2013 Production

**Monthly Production Status & Cumulative Total June 2015 Through
April 2018 Gallon Per Capita Day Comparison to 2013 & 5 Year Average**




GPCD

Cumulative Total 25.2%

2015	-2%	-15%	-4%	-16%	-37%	-39%	-40%	-27%	-35%	-37%	-9%	-18%
2016	-12%	-14%	-21%	-30%	-45%	-29%	-24%	-21%	-28%	-26%	-13%	-10%
2017	-9%	-19%	-28%	-34%	-41%	-30%	-20%	-19%	-27%	-26%	1%	14%
2018	1%	-7%	-13%	-29%								

Percent Comparison to 2013 Production



DROUGHT RESPONSE Phase IV

Mandatory Odd/Even Watering Schedule, based on address. Residents will be allowed ONE day a week to water lawns and landscapes. No watering allowed Monday through Fridays.

Watering is prohibited between the hours of 5:00 AM to 10:00 AM and 5:00 PM to 10:00 PM.

No watering outdoor landscapes during and within 48 hours after measurable rainfall (>0.01 inches).

Excessive water runoff is prohibited.

The washing of sidewalks and driveways is prohibited.

Vehicles shall only be washed on designated watering days and with a hose equipped with a shut-off nozzle.

The operation of ornamental water features is prohibited unless the fountain uses a recycling system.

Non-compliance with Phase IV water conservation regulations could result in citations with fines up to \$500.

DROUGHT RESPONSE PHASE IV

The City of Porterville has adopted Phase IV of its Drought Response Plan. As part of the Phase IV plan, the City has restricted watering days to one day per week, based on address.

Mandatory Odd/Even Watering Schedule

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
DO NOT WATER	DO NOT WATER	DO NOT WATER	DO NOT WATER	DO NOT WATER	OK TO WATER	OK TO WATER
					ODD	EVEN

- Odd Address

Even Address
- Outdoor Watering is Prohibited

ODD NUMBER ADDRESSES

If your address ends with an “odd” number, 1, 3, 5, 7, or 9, your watering day is Saturday *only*.

OR

EVEN NUMBER ADDRESSES

If your address ends with an “even” number, 0, 2, 4, 6, or 8, your watering day is Sunday *only*.

Violation Level	Citation Amount
First Violation	Warning Only
Second Violation	\$100 Fine
Third Violation	\$200 Fine
Fourth Violation	\$500 Fine

Mandatory
Odd/Even Watering
Schedule

Excessive water
runoff prohibited

The washing of
sidewalks and driveways
is prohibited

Vehicles shall only be
washed on designated
watering days and with
hoses equipped with a
shut-off nozzle

Ornamental water
features are prohibited
unless the fountain uses
a recycling system

WATERING PROHIBITED
BETWEEN THE HOURS OF
5:00 – 10:00 AM
5:00 – 10:00 PM

NO WATERING
MONDAY THROUGH
FRIDAY.



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Authorization to Replace Guardrail

SOURCE: Public Works

COMMENT: The guardrail located on North Highland Drive, south of 1425 North Highland Drive, is in need of replacement. A portion of the guardrail has been removed due to previous damage and the remaining portion is showing signs of deterioration.

Guardrails and median barriers are used to redirect vehicles away from more hazardous objects and are among the most basic roadside safety features implemented on roadways. They are designed to prevent vehicles from leaving the roadside and becoming involved in more hazardous collisions. The installation of guardrails is normally warranted by the presence of one or several of the following features along a roadway: high embankments with steep side slopes; sharp curves; obstacles such as bridges, piers, and sign supports less than thirty (30) feet from the edge of the travel-way; or other non-traversable hazards such as streams. Missing or damaged guardrail sections may continue to provide minimum levels of awareness of potential traffic hazards, but lack the robust support needed to prevent vehicles from leaving the roadway

City staff has secured two quotes for the replacement of the North Highland Drive guardrail.

<u>Company</u>	<u>Total</u>
C&W Construction Specialties, Inc	\$13,063
MBI Midstate Barrier, Inc	\$16,050

C&W Construction Specialties was the lowest bidder to respond. Pending Councils approval of replacement, C&W Construction Specialties will schedule a response to start the removal of existing guardrail and replacement with all new materials not to exceed \$15,555 (inclusive of all parts, taxes, labor, and a 10% contingency). The total repair cost will be funded by LTF funds as programmed in the 17/18 Capital Improvement Project list.

RECOMMENDATION: That Council:

1. Direct the Finance Director to initiate a Purchase Order to C&W Construction Specialties in the amount not to exceed \$15,555 for the N. Highland Guardrail Replacement; and
2. Direct the Finance Director to make payment to C&W

Item No. 1.

Construction Specialties upon receipt of invoice approved by the
Public Works Director.

ATTACHMENTS: 1. C&W Construction Specialties
 2. MBI Midstate Barrier

Appropriated/Funded: MB

Review By:

Department Director:

Final Approver: John Lollis, City Manager



C&W Construction Specialties, Inc.

License #256795 A, C13 * Union Contractor

DIR Registration #1000007135

Proposal

Project No.

Job# 18066

04/24/18 02:18 PM

Eric Marksberry

ericm@cwcs.us

Bid Date: 04/24/2018

2419 Palma Drive
Ventura CA 93003
Fax - 805-642-7834
Phone - 805-642-0204

Page # 1

www.highwayrail.com

Job No.	Item/Cost Code	Description	Amount
18066 NORTH HIGHLAND DRIVE MBG REPAIRS			
	1 REMOVE EXISTING METAL BEAM GUARD RAILING	25 LF @ \$713.00 LUMP SUM	713.00
	2 INSTALL MGS GUARDRAIL SYSTEM(8' STEEL POST)	130 LF @ \$ 95.00 LF	12,350.00
Grand Total: \$			13,063.00

Notes:

STANDARD CONDITIONS:

1. Approximately TWO (2) working days are required to install our items of work after fabrication (If fabrication is necessary).
2. TWO (2) shifts of traffic control will need to be provided (by others) in order for C&W to perform our items of work.
3. All surveys for alignment, off sets and elevations are to be completed by others prior to our mobilization.
4. Spoils from our excavations are to be scattered in the immediate vicinity of our work, relocation of spoils is to be considered extra work.
5. This quote is valid for 30 calendar days from the bid opening date.
6. The insurance and indemnity provisions as listed in the agencies bid documents. (With the exception of professional liability insurance, which is excluded in all instances). Costs for special endorsements will be charged accordingly.
7. The proposal and these contract provisions must become a binding part of any subsequent subcontract.
8. Retention on progress payments shall only be held if the agencies contract documents or project provisions requires retention withholding for both the prime and sub contractors.
9. All change order work performed for any party other than the contracting agency will be performed at C&W's T&M rates.
10. This is a unit price proposal and all completed items of work will be billed according to actual units installed.
11. Proposal pricing is based upon award of all bid items as a package unless noted otherwise. If interested in splitting out bid items or adding bid items please call before bid time.
12. Scheduling for performance of C&W's scope of work (or fabrication) shall be mutually agreed. Overtime work shall not be required unless specifically provided for in this proposal.
13. This proposal is for a maximum of ONE (1) mobilization. Additional mobilizations will be billed at the rate of \$2500.00.
14. C & W is signatory to the Master Labor Agreements of: Southwest Regional Council of Carpenters and Southern California District Council of Laborers only. Any requirement to be signatory to any other labor agreements is at C & W's sole discretion and no representation is made herein that C & W shall do so.
15. Crew and equipment standby time caused by others shall be compensated as extra work.
16. Terms are net 30 calendar days after date of invoice on monthly progress billings.
17. All Past due accounts will be subject to service charges at a rate of 1-1/2% per month (18% per annum).

STANDARD EXCLUSIONS:

1. Removals of existing or interfering obstacles not shown on plans.
2. Pedestrian or traffic control.
3. Maintenance or repair due to damage caused by others.
4. Clearing, grubbing or grading. C&W shall not be liable for, and shall not provide defense or indemnity to any party for failure of the General Contractor

Accepted by: _____
Company / Name / Signature

Date: _____



C&W Construction Specialties, Inc.

License #256795 A, C13 * Union Contractor

DIR Registration #1000007135

Job# 18066

04/24/18

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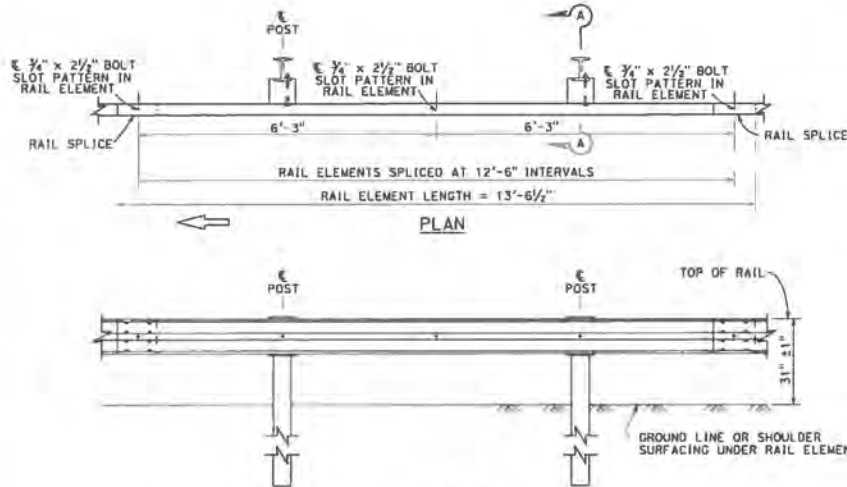
2419 Palma Drive
Ventura CA 93003
Fax - 805-642-7834
Phone - 805-642-0204

Proposal

Project No.

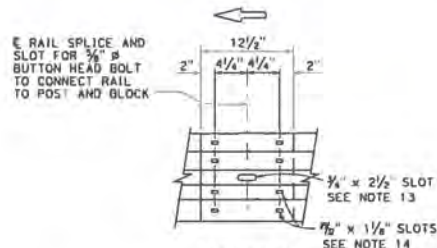
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Job No.	Item/Cost Code	Description	Amount
		or other responsible party to provide required grading for MBGR end treatments as specified in the project specific and/or Standard Plans & Specifications, as may apply.	
	5.	Bond costs / C&W's bond rate is less than 1%.	
	6.	Concrete pilasters, mow strips or curbs unless specifically quoted in this proposal.	
	7.	Hand digging to locate and/or relocating public or private utilities.	
	8.	All costs associated with the repair of damaged utilities that were not properly located by others prior to our mobilization, USA dig alert will be notified of our intention to excavate at least 48 hours prior to beginning work.	
	9.	Drilling or excavating through heavy rock or asphalt, concrete cutting, coring or breaking.	
	10.	Layout or placement of post pockets if post pockets are required.	
	11.	Clean out of post pockets before post installation.	
	12.	Asphalt repair or patching.	
	13.	Costs and/or scheduling for inspection or quality control plans.	
	14.	Permits or permit fees.	
	15.	Material testing fees.	
	16.	Fence Grounding or signage if required	
	17.	Assessment of liquidated damages, including participation in project damages and general contractor overhead cost assessments, for delays caused by others.	
	18.	SWPPP, BMP's and associated work/monitoring/testing.	
	19.	Dust Control.	
	20.	Construction water.	
	21.	Professional Liability insurance (If required).	
	22.	This proposal is not for "design/build" services. C&W Construction Specialties, Inc. (hereinafter "CWCS") shall not bear any responsibility for engineering and design of the Work contemplated under this proposal. General arrangement plans, construction details, equipment selection data and any other information provided by CWCS is strictly intended for the convenience of Contractor, Owner and the Engineer for consideration in their development and finalization of plans and specifications for the Work. Incorporation of any information provided by CWCS without modification into design of the Work shall not be construed as conferring any responsibility for the design onto CWCS	



ELEVATION

**MIDWEST GUARDRAIL SYSTEM WITH STEEL POSTS
AND NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCKS**



ELEVATION

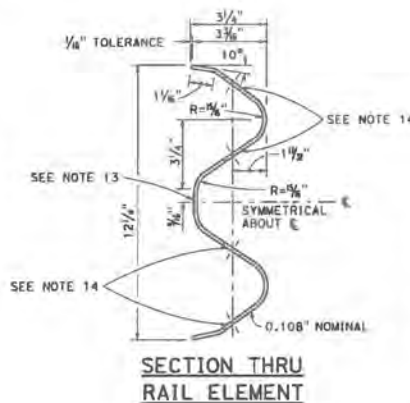
RAIL ELEMENT SPLICE DETAIL

- Connect the overlapped end of the rail elements with $\frac{3}{4}$ " ϕ x $1\frac{1}{4}$ " button head oval shoulder splice bolts inserted into the $\frac{7}{8}$ " x $1\frac{1}{4}$ " slots and bolted together with $\frac{3}{4}$ " ϕ recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.

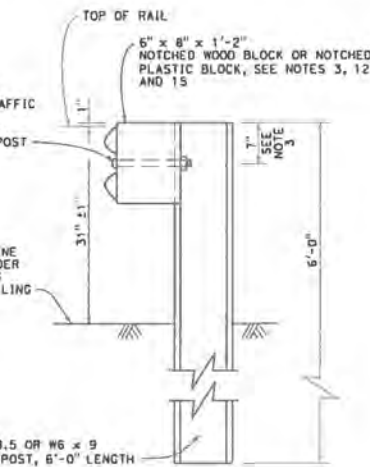
$\frac{3}{4}$ " ϕ BUTTON HEAD BOLT WITH HEX NUT. ATTACH RAIL ELEMENT TO WOOD BLOCK AND STEEL POST WITH BOLT ON TRAFFIC APPROACH SIDE OF POST WEB. NO WASHER ON RAIL FACE FOR BOLTED CONNECTION TO LINE POST.

GROUND LINE OR SHOULDER SURFACING UNDER RAILING

WG # 8.5 OR WG # 9
STEEL POST, 6'-0" LENGTH



**SECTION THRU
RAIL ELEMENT**



**SECTION A-A
TYPICAL STEEL LINE
POST INSTALLATION**

See Note 4

DATE	PROJECT	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
January 20, 2017				130200	130217

Randall D. Hiett
REGISTERED CIVIL ENGINEER
No. 6-20-17
DATE OF EXPIRATION

TO ACCOMPANY PLANS DATED _____

NOTES:

- For details of wood post installations, see Revised Standard Plan RSP A77L1.
- For details of standard hardware used to construct MGS, see Standard Plan A77M1.
- For details of steel posts and notched wood blocks used to construct MGS, see Revised Standard Plan RSP A77N2.
- For additional installation details, see Standard Plan A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77D and A77R Series of Standard Plans.
- If railing is connected to terminal system and treatment, use 31" height terminal system and treatment.
- For MGS end anchor details, see Standard Plans A77S1 and A77T2.
- For details of MGS transition to bridge railing, see Standard Plan A77U4.
- For additional details of MGS connection to bridge railings, see Standard Plans A77U1, A77U2 and A77V1.
- For dike positioning and MGS delineation details, see Standard Plan A77N4.
- Notched face of block faces steel post.
- Slotted hole for bolted connection of rail element to block and post.
- Slotted holes for splice bolts to overlap ends of rail element.
- 6" x 12" x 1'-2" block must be used with 6" dike.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(STEEL POST WITH NOTCHED
WOOD OR NOTCHED
RECYCLED PLASTIC BLOCK)**

NO SCALE

RSP A77L2 DATED JANUARY 20, 2017 SUPERSEDES STANDARD PLAN A77L2
DATED OCTOBER 30, 2015 - PAGE 50 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP A77L2

2015 REVISED STANDARD PLAN RSP A77L2

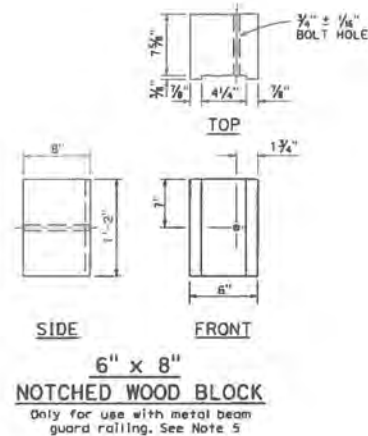
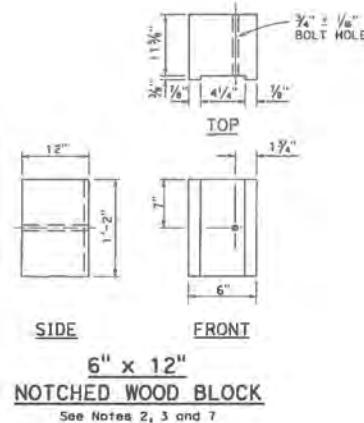
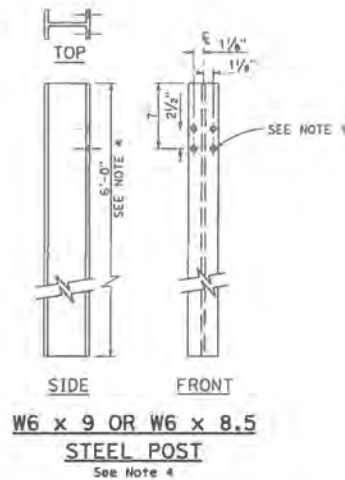
DATE	COUNT	ROUTE	POST MILES	SHEET	TOTAL
			TOTAL PROJECT	NO.	SHEETS

Randell D. Hiett
REGISTERED CIVIL ENGINEER

January 20, 2017
PLANS APPROVAL DATE

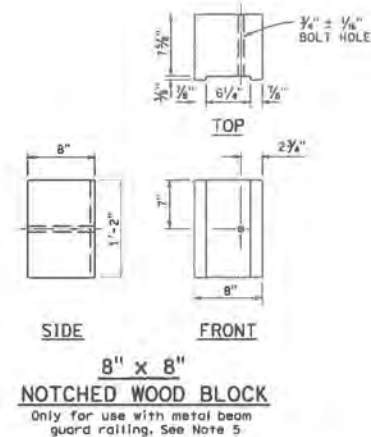
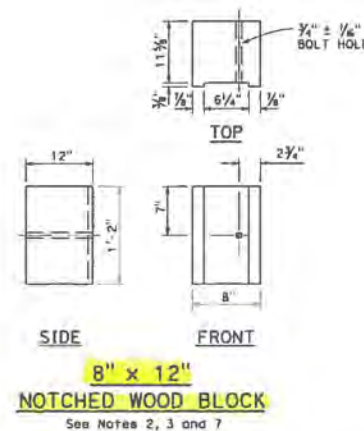
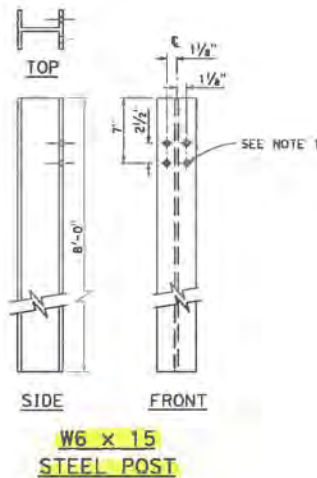
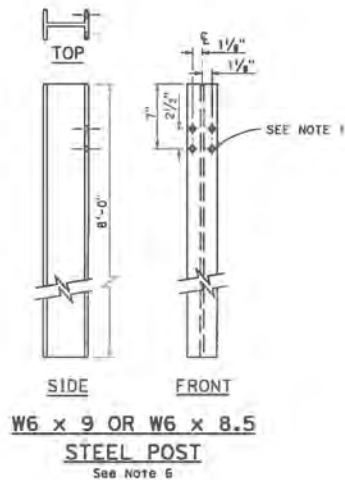
THE STATE OF CALIFORNIA OR ITS OFFICIALS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF ISSUED
COPIES OF THIS PLAN SHEET.

Randell D. Hiett
No. C50200
Exp. 12-31-17
STATE OF CALIFORNIA



NOTES:

1. All holes in steel post shall be $\frac{9}{16}$ " Dia maximum.
2. Dimensions shown for wood block are nominal.
3. Notched face of block faces steel post.
4. 6'-0" length posts to be used for typical roadway installation. See Standard Plan A77N3.
5. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" notched wood blocks.
6. This post and 8" x 12" block combination to be used for line post sections of MGS on narrow roadways and where strengthened line post sections of MGS are warranted to shield fixed objects.
7. 6" x 12" notched wood block and 8" x 12" notched wood block must be used with 6" disks.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM
STEEL POST AND
NOTCHED WOOD BLOCK DETAILS
NO SCALE

RSP A77N2 DATED JANUARY 20, 2017 SUPERSEDES STANDARD PLAN A77N2
DATED OCTOBER 30, 2015 - PAGE 54 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP A77N2



Midstate Barrier, Inc.

3291 South Highway 99 Stockton, CA 95215
P.O. Box 30550 Stockton, CA 95213-0550
209-944-9565, Fax 209-944-9569
License No. 529261

Quotation

#COPQ1801r1

Date: April 30, 2018

Company: City of Porterville

Name: David J. Payne

From: Dan Nicholas, Estimator, Ext. 208 dnicholas@midstatebarrier.com

Total Pages: 3, including this page.

N. Highland Drive Guardrail

Enclosed please find MBI's guardrail quotation per your request. Thank you for the opportunity.

Please call X208 if you have any questions.

A handwritten signature in black ink, appearing to read "Dan Nicholas", is written above the printed name.

Dan Nicholas, Estimator

Date: April ³⁰~~26~~, 2018
Contract No: City of Porterville
Location: N. Highland Drive

GENERAL CONDITIONS
BID # **COPQ1801**

1. **INSURANCE**- Limits of liability, \$2,000,000 general aggregate. Limits of workers compensation, \$1,000,000. Excess/Umbrella Liability, \$5,000,000. Excludes railroad, Pollution Liability, or Rigger's Liability Insurance. Pollution Insurance can be provided for a fee of 0.75% of MBI's Bid pricing, with a minimum of \$400.00 LS per project. Rigger's Insurance can be provided for a minimum fee of \$250.00 LS. Cannot provide insurance to, or additionally insure home builders.
2. **INDEMNIFICATION**- MBI's obligations with regard to defense and indemnity stated in any Subcontract Agreement shall be consistent with and limited by the provisions of Senate Bill 474, Civil Code Section 2782, and Civil Code Section 2782.05.
3. If requested, Subcontractor will furnish Surety Bonds on MBI's Surety or UCON forms only. Premium of **1%** of Subcontract amount for projects less than 2 years in duration, plus additions, shall be paid by Contractor. Guarantee/Warranty is valid for one year per Section 6-3.06 of the CDOT 2010 Standard Specifications. Longer Guarantee periods can be provided. Costs of such extensions shall be paid by Contractor.
4. Subcontractor excludes survey controls and staking, all electrical and lighting work, permits and fees, as built or record drawings.
5. Subcontractor will not furnish Certificates of Labor Non-Performance unless required by the Specifications.
6. No retention is to be held. Payment due 30 days from invoice.
7. Project is bid for completion by 6/30/2018.
8. Subcontract documents **will not be accepted** and executed if applicable General and Special Conditions are not attached to the subcontract, as quoted. Contractor's signature, or by first allowing MBI to begin work on the project, shall serve as evidence of acceptance of these conditions.

Proposal

MIDSTATE BARRIER, INC.

Job Code: COPQ1801r1

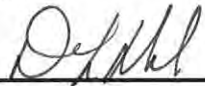
Description: CITY of PORTERVILLE / N. HIGHLAND DR. GUARDRAIL #Q1801r1

		Proposal				
Pay Item No.	Description		Quantity	Unit of Measure	Unit Price	Total Price
Subtotal Description						
1	MIDWEST GUARDRAIL-steel post		1.00	LS	16,050.00	16,050.00
GRAND TOTAL:						16,050.00

Proposal Certification

Submitted By: MIDSTATE BARRIER, Inc.-
CL-A- #529261, Exp. 5.31.2018
DAN L. NICHOLAS DIR Reg. #1000000538
ESTIMATOR, x208
4.30.2018

Signed: _____



SPECIAL CONDITIONS #COPQ1801

1. Contractor requires unobstructed access to work areas for men and equipment.
2. Includes Traffic Control (2 person flagging). Excludes Site-Specific traffic control plan, portable changeable message sign, permits and fees. Work is to be standard weekday dayshift.
3. Excludes all temporary barricades, K-rail, Crash Cushions, Safety Railing, dust control, embankment widening, clearing and grubbing, pruning, grading, excavation, and backfill. Posthole spoil is to be wasted in-place. Excludes repair or patching of HMA or dike.
4. MBI will USA pre-existing utilities. Utilities installed under this contract are to be located and marked by others prior to MBI move-in. Excludes interference with UG and OH utilities. Exclude power shutdown, if required.
5. Contractor is to provide twenty (20) working days written notice prior to MBI move-in. Use (10) working days with receipt of Contractor's Subcontract, Schedule and subsequent updates.
6. **Item #1, Midwest Guardrail (MGS):** INCLUDES remove 25LF, furnish and install 125 total LF in one run of Caltrans standard MGS, steel posts & plastic blocks, including two (2) Type A end caps. Excludes installation in AC, PCC, rock, or permeable material. One (1) move-in.



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Authorization to Purchase Ultrasonic Meter Equipment

SOURCE: Public Works

COMMENT: One of the essential duties of the City of Porterville Water Utilities Division is to accurately and efficiently measure the quantity of water produced and distributed through the City's water mains and to our customers. Drought conditions have brought awareness to the need to account for potable water systems operational inefficiencies. A water systems efficiency is an ongoing evaluation by operational staff, working to assure that water produced is the same quantity delivered to its customers equaling an operational efficiency value calculated during an annual Water Loss Audit. Effective water loss control goes beyond fixing leaks and breaks as they occur. It involves monitoring and improving infrastructure conditions and operational practices, with economically justified intervention planning. Proactive water loss control can provide multiple benefits in addition to reducing water waste, such as improving infrastructure durability, preventing property damage, and delaying the need for developing additional water resources.

The Water Utilities Division has identified the need to purchase two Ultrasonic Electronic Flow Meters. Featuring external transducers that clamp onto the outside of pipe structures with no tapping or cutting required, this portable electronic flow meter will let staff troubleshoot flow issues. The purchase of this meter will also allow operators to easily verify the flow reading of another meter for calibration issues, or to monitor specific flow values over a period of time (data log).

Water Utility Staff has received multiple (3) quotes for an Ultrasonic Electronic Flow Meter meeting the desired specification.

<u>Company</u>	<u>Total</u>
GRAINGER	\$5,575
INSTRUMART	\$5,969
ZORO	\$6,566

Grainger was the lowest bidder to respond. Pending Council's approval of the purchase, Grainger will be contacted to place an order for two Ultrasonic Electronic Flow Meters at a not to exceed an amount of \$12,070 (inclusive of all parts, taxes, and a 10% contingency). The total purchase amount will be funded by Water Operating Fund.

RECOMMENDATION:

That Council:

1. Direct the Finance Director to initiate a Purchase Order to Grainger in the amount not to exceed \$12,070 for the purchase of two Ultrasonic Electronic Flow Meters; and
2. Direct the Finance Director to make payment to Grainger upon receipt of invoice approved by the Public Works Director.

ATTACHMENTS:

1. GRAINGER
2. INSTRUMART
3. ZORO

Appropriated/Funded: MB

Review By:

Department Director:

Final Approver: John Lollis, City Manager



Customer Quotation

To:

CITY OF PORTERVILLE
291 N MAIN ST
PORTERVILLE CA 93257-3737

Information

Date 05/03/2018
Customer Account Number 819670951
Grainger Quote Number 41614902
Customer Job Number
Grainger Representative Richard Easterwood
Phone Number
Fax Number
Email
Grainger Tax ID 36-1150280

Item	Description Manufacturer Name & Model	Cat. Pg. #	Qty	\$ Quote	Ext. Price	Start Date	Exp. Date
49DE96	Flow Meter,Ultrasonic DYNASONICS DXNP-ABS-NN Country of Origin: USA	2679	1	5,574.40	5,574.40	05/03/2018	06/30/2018
				Total \$	5,574.40		

All orders are subject to the terms and conditions in your current contract with Grainger or to Grainger's current Terms of Sale as set forth on Grainger.com

Thank You!
Visit us at grainger.com

INSTRUMART

Instrumart is a registered trade name of
Total Temperature Instrumentation, Inc. ("TTI")

35 Green Mountain Drive • S. Burlington • VT • 05403 • USA
P: 802-863-0085 • F: 802-863-1193
www.instrumart.com
DUNS: 197963499 • FEIN: 03-0316999

Quote

Date	Quote #
5/3/2018	Q1127576

This is a quote, not an invoice. Actual shipping date and charges will be determined at the time of invoicing.

Bill To	Ship To
City of Porterville 291 North Main Street Porterville CA 93257 United States	City of Porterville 291 North Main Street Porterville CA 93257 United States

Expires	Reference #	Customer Contact	External Memo
6/2/2018		Michael Knight	

Payment Terms	Shipping Method	Freight Collect #	Instrumart Contact
CREDIT CARD/PCARD	FREE SHIPPING - UPS GROUND		John Bartholomew

Part Number	Description	Q...	Unit Price	Ext. Price	Tax
DXNP-ABS-NN	Dynasonics DXN Ultrasonic Flow Meter SELECTED OPTIONS: Power Cord: North America (2 Flat Prongs & 1 Round Prong; NEMA 5/15P) Sensor & Hardware Kit: Basic - Small pipe & standard pipe transit time transducers only Current Availability: ~10 business days plus transit time from our South Burlington, Vermont location.	1	5,969.00	5,969.00	Yes
* Lifetime Tech Support	Unlimited lifetime technical support via phone (800-235-8367) or email (support@instrumart.com) for the items on this order.	1	0.00	0.00	

If you have any questions please don't hesitate to contact me.
Regards, John Bartholomew
jbartholomew@instrumart.com
(800) 235-8367 x 266

Subtotal	5,969.00
Shipping Cost (FREE SHIPPING - UPS GROUND)	0.00
Tax (CA_TULARE CO_EMBP_EMUL 7.75%)	462.60
Total - US \$	\$6,431.60

To the extent applicable, the contractor and subcontractor shall abide by the requirements of 41 CFR 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability.

Q1127576

5/8/2018

Zoro: Quotation #145088 - Michael Knight

Zoro: Quotation #145088

do-not-reply@zoro.com

Thu 5/3/2018 12:59 PM

To: Michael Knight <mknight@ci.porterville.ca.us>;



909 Asbury Drive

Buffalo Grove IL 60089

(855) 289-9676

Bill To

City of Porterville
291 N Main St

Porterville CA 93257

Ship To

City of Porterville
555 N Prospect St

Porterville CA 93257

Quotation

Date 5/3/2018
Quote # 145088
Expires 6/2/2018
Shipping Method Standard Ground
Contact Phone
Customer PO#

Line No.	Z Number	Mfr #	Item	Qty	Units	Description	Country of Origin	Estimated Ship Date	Rate	Amount
1	G4154118	DXNP-ABS-NN	Flow Meter,Ultrasonic	1	EA	Electronic Flowmeter, Electronic Flowmeter, For Pipe Size 1/2 In. to 98 In., Connection Type Strap-on Assembly, Fluid Temp. Range -40 Degrees to 250 Degrees F, Wetted Materials None, Flow Range 0.09792 to 940,420 gpm, Flow Material Water-Like Liquids, Ultrasonic, Accuracy (Percent) +/-1, Sensor Type Ultrasonic, Display Units US Gallons, Liters, Mega US Gallons, Cubic Feet, Cubic Meters, Acre Feet, Oil Barrels, Liquid Barrels, Feet, Meters, Pounds, Kilograms, Display Type LCD	US	Item ships in 11-15 business days.	6,565.90	6,565.90

Subtotal 6,565.90

Shipping Cost (Standard Ground) 0.00

Total Tax 541.68

Total \$7,107.58

Availability is not guaranteed and is subject to change. Final tax and shipping costs will be calculated at time of purchase.

This e-mail (and attachments, if any) may be subject to the California Public Records Act, and as such may therefore be subject to public disclosure unless otherwise exempt under the Act.



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Approval of Payment to the Tulare County Treasurer

SOURCE: City Attorney

COMMENT: The City is currently involved in litigation with Greg and Cinda Woodard regarding the proposed site of a water reservoir needed to complete the East Porterville Water Supply Project. When completed the project will provide water to residences in East Porterville that haven't had a reliable water system since their domestic wells began going dry in 2013. The city has filed a lawsuit to obtain the property by eminent domain. The name of the case is City of Porterville v. Greg L. Woodard and Cinda D. Woodard, Trustees of the Woodard Family Revocable Trust of August 10, 2006, Tulare County Superior Court case no. 273165.

In order to immediately obtain possession of the proposed tank site, the City needs to make a deposit of probable compensation with the county treasurer pursuant to California Code of Civil Procedure § 1255.070. The amount of this deposit is \$57,000, which is based on the City's preliminary appraisal of value of the proposed tank site. The appraisal was prepared by Keith J. Hopper, a real estate appraiser holding the MAI, R/W-AC, and AI-GRS designations.

RECOMMENDATION: Approve payment to the Tulare County Treasurer in the amount of \$57,000, the amount of probable compensation pursuant to C.C.P. § 1255.070 for the property at issue in the eminent domain case entitled *City of Porterville v. Greg L. Woodard and Cinda D. Woodard, Trustees of the Woodard Family Revocable Trust of August 10, 2006*, Tulare County Superior Court case no. 273165.

ATTACHMENTS:

Appropriated/Funded:

Review By:

Department Director:

Final Approver: John Lollis, City Manager



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Authorization to Augment Contract Budget for Murry Park Playground Shade Structure Project

SOURCE: Parks and Leisure Services

COMMENT: On January 16, 2018, City Council authorized the purchase and installation of a playground shade structure at the Murry Park upper playground for \$15,116.44. Eighty percent (80%) of the total project cost is set to be paid for by a First 5 Tulare County Grant, with the remaining twenty percent (20%) proposed to come from Community Development Block Grant (CDBG) funds designated for public facilities and improvements specific to Murry Park.

Due to unforeseen circumstances, the installation of the shade structure was interrupted when the installer encountered large boulders below ground. This created the need for a recalculation of the footings and some other additional engineering work in order for the shade poles to be installed. The additional work and newly required materials to complete the installation will increase the total project cost \$2,100. The additional cost is proposed to be paid for from the same CDBG public facilities and improvements funds.

RECOMMENDATION: That the City Council authorize to augment the contract budget \$2,100.00 for the Murry Park Playground Shade Structure Project.

ATTACHMENTS:

Appropriated/Funded:

Review By:

Department Director:

Donnie Moore, Parks and Leisure Services Director

Final Approver: John Lollis, City Manager



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Authorization to Advertise for Bids for the Airfield Pavement Rehabilitation Project and for the Gates, Fence and Access Control Improvement Project at the Airport

SOURCE: Finance

COMMENT: On September 6, 2016, the City Council accepted a grant from the Federal Aviation Administration (FAA) for the design portion of the airfield pavement rehabilitation project and the gates, fence and access control improvement project at the airport. Tartaglia Engineering has completed the plans and technical specifications.

The airfield pavement rehabilitation consists of localized removal and reconstruction of failed asphalt pavement, crack fill and seal, slurry seal, application of a pavement rejuvenating product, reconstruction of portions of portland cement concrete flatwork panels, re-sealing PCC joints, and application of pavement marking.

The gate and access control improvements include demolition, removal and rehabilitation of three existing automatic / electric vehicle access gates plus new gate operators, gates, cast in place concrete gate tracks, key pad controllers, bollards, induction loops, electrical improvement, pole-mounted area lights, video surveillance cameras with wireless connections to the admin office, and installation of new fence.

The Engineer's estimate of probable construction cost for the pavement rehabilitation is \$671,000 plus a 10% contingency of \$67,100 and an additional \$75,000 for construction administration and inspection, surveying and layout and materials testing for a total construction cost of \$813,100.

The Engineer's estimate of probable construction cost for the gates and access control improvements is \$176,000, plus a 10% contingency of \$17,600 and an additional \$41,000 for construction administration and inspection, surveying and layout and materials testing for a total construction cost of \$234,600.

After opening the bids, staff will submit a revised grant application to the FAA for the construction, based on bids. The federal grant is 90% of the total construction cost. Once the FAA grant is accepted, staff will then apply to the State of California Division of Aeronautics for a matching grant of 5% of the federal award. And 4.5% of the construction cost will be funded by the Airport Development Fund.

RECOMMENDATION: That the City Council authorize staff to advertise for bids on the airfield pavement rehabilitation project and for the gates, fence and access control improvement project at the airport.

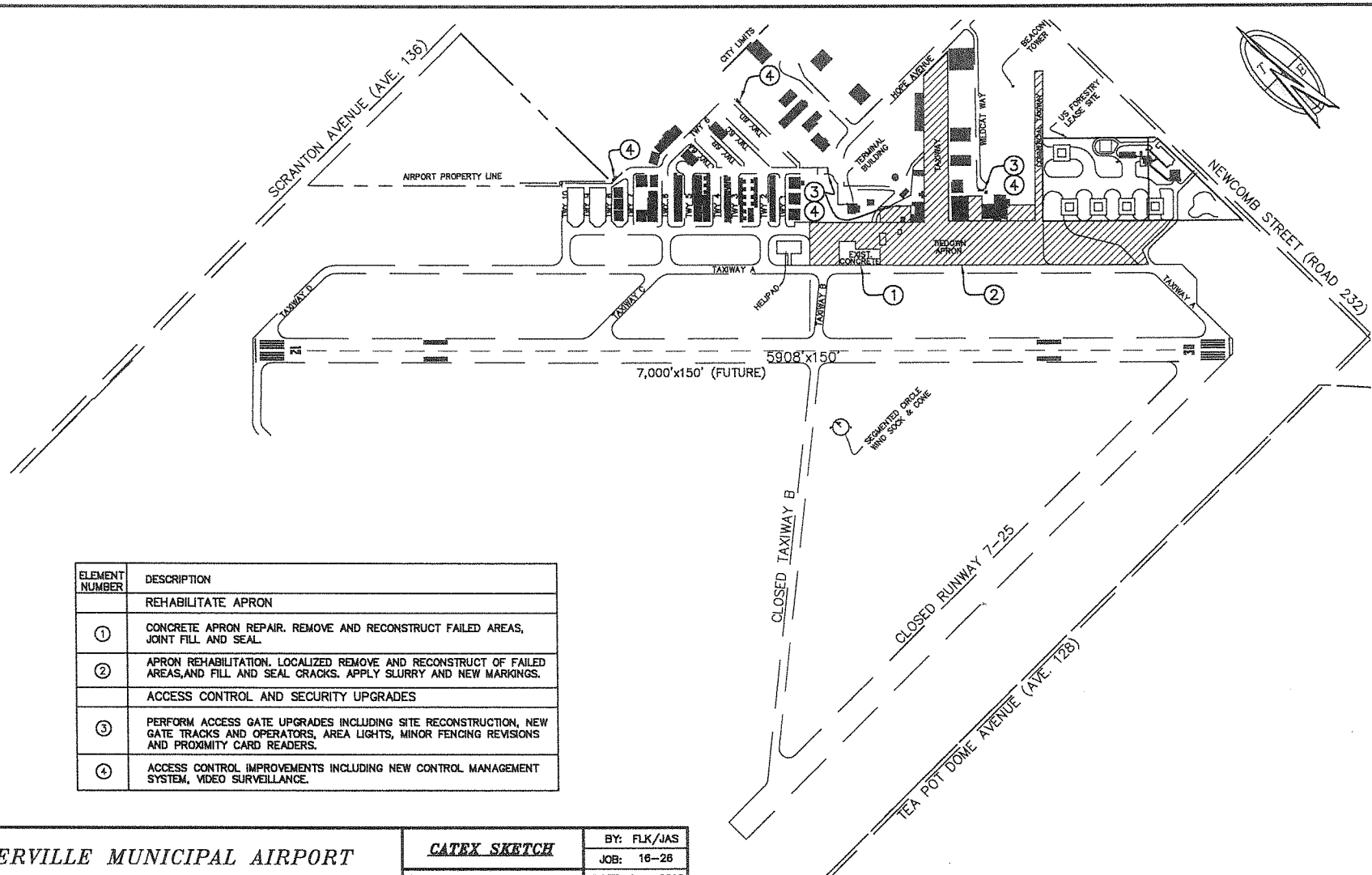
ATTACHMENTS: 1. Project Sketch

Appropriated/Funded: MB

Review By:

Department Director:

Final Approver: John Lollis, City Manager



ELEMENT NUMBER	DESCRIPTION
	REHABILITATE APRON
①	CONCRETE APRON REPAIR. REMOVE AND RECONSTRUCT FAILED AREAS, JOINT FILL AND SEAL.
②	APRON REHABILITATION. LOCALIZED REMOVE AND RECONSTRUCT OF FAILED AREAS, AND FILL AND SEAL CRACKS. APPLY SLURRY AND NEW MARKINGS.
	ACCESS CONTROL AND SECURITY UPGRADES
③	PERFORM ACCESS GATE UPGRADES INCLUDING SITE RECONSTRUCTION, NEW GATE TRACKS AND OPERATORS, AREA LIGHTS, MINOR FENCING REVISIONS AND PROXIMITY CARD READERS.
④	ACCESS CONTROL IMPROVEMENTS INCLUDING NEW CONTROL MANAGEMENT SYSTEM, VIDEO SURVEILLANCE.

PORTERVILLE MUNICIPAL AIRPORT
CITY OF PORTERVILLE, CA

CATEX SKETCH
TARTAGLIA ENGINEERING
CIVIL ENGINEERS
P.O. Box 1830, Alameda, CA 94623

BY: FLK/JAS
JOB: 16-26
DATE: June 2016
SCALE: 1"=600'



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Authorization to Award the Contract for the 87 South G Street Demolition Project

SOURCE: Public Works

COMMENT: On May 2, 2018, staff received three (3) bids for the 87 South G Street Demolition Project. The project includes the demolition of an 1,224 square foot, single family residence, and 432 square foot detached garage. In addition to the demolition of the structures, the project also includes the clearing of any and all other structures and debris from the property. All demolition work must comply with laws and regulations pertaining to the removal and disposal of asbestos-containing building materials and lead-containing materials as detailed in the project's Asbestos and Lead-Based Paint Survey.

The Engineer's Estimate of Probable Cost for the project was \$36,500. The low bid presented by H D Matthews Demolition & Excavation of Fresno is \$24,995, which is 31.52% below the Engineer's Estimate. An additional \$2,499.50 is required for construction contingency (10%). It is anticipated that an additional \$2,499.50 is required for construction management, quality control, and inspection services (10%). The total estimated cost for the project is \$29,994.

The bids are as follows:

Contractor	Amount
1. H D Matthews Demolition and Excavation Fresno, CA	\$24,995.00
2. Alfredo Balandra Wildomar, CA	\$34,700.00
3. Bowen Engineering and Environmental Fresno, CA	\$39,600.00

Staff believes the low bid is acceptable.

The funding source for this project is the Community Development Block Grant. Once cleared, the property will be donated to a non-profit affordable housing developer selected through a competitive selection process.

RECOMMENDATION:

That City Council:

1. Award the 87 South G Street Demolition Project to H D Matthews Demolition & Excavation in the amount of \$24,995;
2. Authorize a 10% contingency to cover unforeseen construction costs; and
3. Authorize 10% for construction management, quality control, and inspection.

ATTACHMENTS:

1. Demo Site Map

Appropriated/Funded:

Review By:

Department Director:

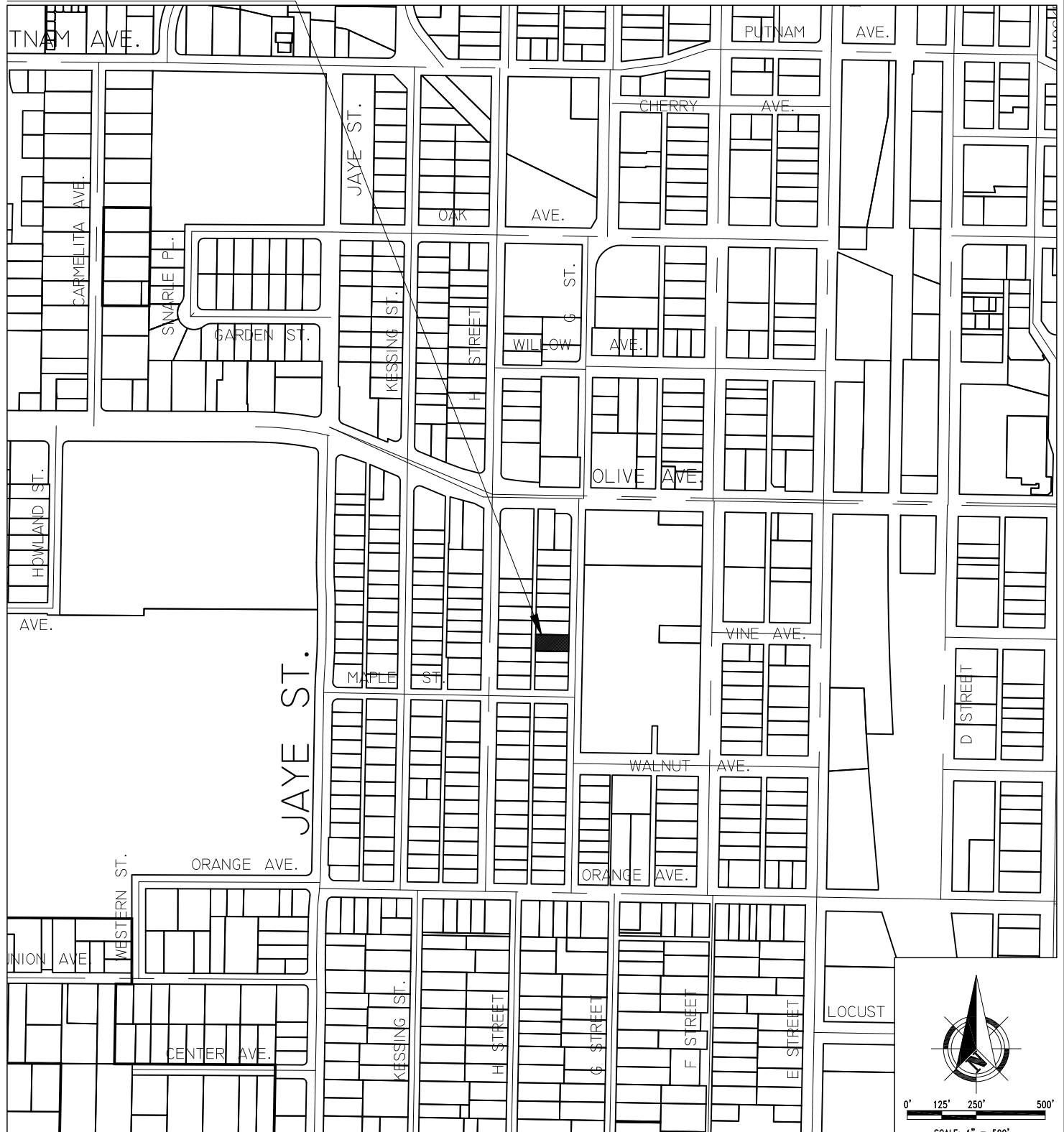
Mike Reed, Acting Public Works Director

Final Approver: John Lollis, City Manager

PROJECT VICINITY MAP

EXHIBIT "A"

PROJECT LOCATION



City of Porterville

291 N. MAIN ST.
PORTERVILLE, CA. 93257
559 782-7462

SCOPE OF WORK:

DEMOLITION AND HAUL OFF OF ALL DEBRIS
OF A 1656 SF RESIDENCE. DEMOLITION WILL
REQUIRE LEAD AND ASBESTOS ABETMENT.

OWNERS:

City of Porterville
291 N. Main Street
Porterville, CA 93257

APN:

260-192-007

ADDRESS:

87 S. G Street, Porterville, CA

AREA:

1656 SF Roof Area

DRAWN BY:

LC

CHCK BY:

MKR



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Authorization to Apply for Funding from the FTA's Low or No Emission Grant Program

SOURCE: Public Works

COMMENT: Section 5339(c) of Title 49, United States Code, as amended by the Fixing America's Surface Transportation (FAST) Act, authorizes the Federal Transit Administration (FTA) to award grants for low or no emission buses through a competitive process.

The FTA's Low or No Emission competitive program provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities.

In April 2018, the FTA released a notice of funding for up to \$84.45 million in competitive grant funds through the Low or No Emission (Low-No) Bus Program. All eligible expenses under the Low-No program are attributable to compliance with the Clean Air Act. Therefore, under the provision the maximum Federal participation in the costs of leasing or acquiring a transit bus financed under the Low-No Program is 85 percent of the total transit bus cost. Further, the maximum Federal participation in the cost of leasing or acquiring low or no emission bus-related equipment and facilities is 90 percent of the net project cost of the equipment or facilities that are attributed to compliance with the Clean Air Act. FTA may prioritize projects proposed with a higher local share and if grant funds can be obligated within 12 months of selection.

FTA requires that all capital procurements meet FTA's Buy America requirements, which require that all iron, steel, or manufactured products be produced in the U.S. These requirements help create and protect manufacturing jobs in the U.S. The Low-No Program will have significant economic impact on meeting the objectives of the Buy America law. Federal transit law amended the Buy America requirements to provide for a phased increase in the domestic content of rolling stock. For FY 2018 and FY 2019, the cost of components and subcomponents produced in the United States must be more than 65 percent of the cost of all components. For FY 2020 and beyond, the cost of components and subcomponents produced in the United States must be more than 70 percent of the cost of all components. There is no change to the requirement that final assembly of rolling stock must occur in the United States.

In FY 2018, the program received applications for 129 projects, 51 projects

were funded at a total of \$55 million.

Although the Low-No grant program has historically been very competitive and the majority of the selected projects awarded to larger transit agencies, staff believes the FTA is focusing on small urban and rural transit agencies for FY 2018. Staff is prepared to demonstrate an unmet need for capital investment in vehicles that have exceeded their minimum useful life.

The Council may authorize staff's submittal of the application and to further its commitment to a zero-emission transit fleet by adoption of a resolution.

RECOMMENDATION: That the City Council approve the resolution authorizing staff to submit an application for funding to the Federal Transit Administration's FY 2018 Low or No Emission Grant Program.

ATTACHMENTS: 1. Draft Resolution

Appropriated/Funded:

Review By:

Department Director:

Mike Reed, Acting Public Works Director

Final Approver: John Lollis, City Manager

RESOLUTION NO. ____ - 2018

**A RESOLUTION OF THE CITY COUNCIL OF THE
CITY OF PORTERVILLE AUTHORIZING STAFF TO ACT ON BEHALF
OF THE CITY FOR THE PURPOSE OF OBTAINING FEDERAL FINANCIAL
ASSISTANCE UNDER FTA SECTION 5339(C) (LOW OR NO EMISSION GRANT
PROGRAM) WITH THE FEDERAL TRANSIT ADMINISTRATION**

WHEREAS, Section 5339(c) of Title 49, United States Code, as amended by the Fixing America's Surface Transportation Act, authorizes the Federal Transit Administration (FTA) to award grants for low or now emission buses through a competitive process; and

WHEREAS, the FTA announced the opportunity to apply for \$84,450,000 in competitive grants under the fiscal year 2018 Low or No Emission Grant Program; and

WHEREAS, the City of Porterville is committed to replacing its aging transit fleet with zero emission buses to reduce greenhouse gas and air pollutant emissions; and

WHEREAS, the City of Porterville desires to apply for said financial assistance from the Low or No Emission Grant Program.

NOW THEREFORE, BE IT RESOLVED AND ORDERED that the City Council of the City of Porterville does hereby Authorize John Lollis, City Manager, to file and execute applications on behalf of the City of Porterville with the FTA to aid in the financing of zero emission bus projects pursuant to the Low or No Emission Grant Program.

That Richard Tree, Transit Manager, is authorized to prepare and submit applications on behalf of the City of Porterville, and provide additional information as the FTA may require in connection with the application for the Low or No Emission Grant Program.

PASSED AND ADOPTED by the City Council of the City of Porterville, State of California, at a regular meeting of said Council held on May 15, 2018.

Brian E. Ward, Mayor Pro Tem

ATTEST:
John D. Lollis, City Clerk

By: _____
Patrice Hildreth, Chief Deputy City Clerk



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan Adoption

SOURCE: Fire

COMMENT: In 2016, the Federal Emergency Management Agency required California Office of Emergency Services (CalOES) to have each county's Office of Emergency Services and their respective participating jurisdictions update the county-wide hazard mitigation plan. This process occurs approximately every 5 years. The attached draft resolution would represent Porterville's participation in the Tulare County Multi-jurisdictional Local Hazard Mitigation Plan. This updated Plan, which is the result of a coordinated two-year effort, would ensure the City's continued eligibility for Mitigation Grant Funding through CalOES for post-emergency mitigation, such as infrastructure repair.

RECOMMENDATION: That the City Council adopt the draft resolution approving Porterville's participation in the Tulare County Multi-jurisdictional Local Hazard Mitigation Plan.

ATTACHMENTS:

1. Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan
2. FEMA Approval Letter
3. Draft Resolution

Appropriated/Funded:

Review By:

Department Director:

Final Approver: John Lollis, City Manager



Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan

March, 2018

Tulare County Office of Emergency Services
5957 S. Mooney Blvd.
Visalia, CA 93277
oes.tularecounty.ca.gov

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan

Record of Reviews and Revisions

Revision #	Date	Sections Reviewed or Revisions Made	Entered by

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan

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2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 1

1. Introduction

Tulare County (County)¹ has prepared the 2017 Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP) to assess the natural, technological, and human-caused risks to County communities, to reduce the potential impact of the hazards by creating mitigation strategies. The 2017 MJLHMP represents the County's commitment to create a safer, more resilient community by taking actions to reduce risk and by committing resources to lessen the effects of hazards on the people and property of the County.

This plan complies with The Federal Disaster Mitigation Act of 2000 (DMA 2000), Federal Register 44 CFR Parts 201 and 206, which modified the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) by adding a new section, 322 - Mitigation Planning. This law, as of November 1, 2004, requires local governments to develop and submit hazard mitigation plans as a condition of receiving Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) and other mitigation project grants. The County; the Cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake; the Tule River Tribe; and Tulare County Office of Education staffs have coordinated preparation of the MJLHMP in cooperation with stakeholders, partner agencies and members of the public, will seek MJLHMP approval and adopt their appropriate sections.

This introduction to the MJLHMP provides a brief description of hazard mitigation planning, local mitigation plan requirements, and an outline of the 2017 MJLHMP. There is also an overview of FEMA programs and grants related to hazard mitigation.

1.1 Background

The DMA 2000 provides the legal basis for the FEMA mitigation planning requirements for local, State, and Indian Tribal governments as a condition of mitigation grant assistance. The DMA 2000 mitigation planning provisions, along with other sections of the Act, provide a significant opportunity to reduce disaster losses across the nation. The language in DMA 2000, taken as a whole, emphasizes the importance of strong State, Tribal, and local planning processes, and comprehensive mitigation program management at the State level. FEMA strongly believes that with hazard mitigation planning, as with most similar efforts, the actual process of planning is as important as the resultant plan. Therefore, we consider the plan as the written record, or documentation, of the planning process or development of a product (such as goals, or hazard identification).

The development, approval, and implementation of this MJLHMP can dramatically reduce future risk and loss by evaluating risk and identifying mitigation actions. The MJLHMP will also assist the County in qualifying for several types of funding offered by FEMA including Pre-Disaster Mitigation (PDM) funds (funding for projects that are implemented before a disaster occurs), and HMGP (post-disaster funds funding for hazard reduction projects). In addition, the MJLHMP improves the County's access to other types of Federal disaster assistance, including funds for permanent repairs. This increased eligibility for

¹ The term County refers to the term Operational Area and is inclusive of the unincorporated County and its departments and offices, cities, special districts and Tribes located within the County.

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 1

grant programs affords the County an opportunity to prepare for the future and work with neighbors to protect the local community.

1.2 Disaster Mitigation Act of 2000

The County's MJLHMP has been developed to provide a living document that meets the requirements of DMA 2000 that will reduce risks posed by hazards in order to protect the community. Regular updates to the MJLHMP are required to comply with the guidance of DMA 2000. Completion of this updated MJLHMP and approval by FEMA will support efforts to reduce hazards to County communities, and to apply for HMGP funding. Both pre- and post-disaster hazard mitigation grants are available. Post-disaster funding, which can be used to enhance the resiliency of facilities, is governed by Section 406 of the Stafford Act, 42 U.S.C. 5172. The Stafford Act provides FEMA with the authority to fund cost-effective mitigation measures under the Public Assistance program in conjunction with the repair of disaster-damaged public facilities.

As the costs of damage from natural disasters continue to increase, governmental and local agencies, as well as the general public, have come to realize the importance of identifying effective ways to reduce vulnerability and losses. The MJLHMP assists entities and jurisdictions in reducing impacts from hazards by recognizing vulnerability in relation to risk, identifying resources, creating an orderly data collection process and developing strategies for risk reduction, while helping to guide and coordinate mitigation activities. The resources and information within the MJLHMP:

- Establish a basis for coordination and collaboration among agencies and the public
- Assist in the integration of mitigation goals and objectives with other County and community plans
- Identify existing mitigation projects and prioritize future projects
- Assist in meeting the requirements of Federal mitigation programs
- Lay the foundation for future MJLHMP updates and MJLHMP maintenance

In addition, the MJLHMP is designed to ensure the long-term values of the community are not compromised in the course of preparing for, responding to or recovering from, natural and manmade hazards.

1.3 General Plan Safety Element

Assembly Bill 2140 (AB 2140) (Stats. 2006, Ch. 739, AB 2140, S. 1) - The California Disaster Assistance Act (CDAA) limits the State share for any eligible project to no more than 75% of total State-eligible costs, except that the State share shall be up to 100% of total State-eligible costs connected with certain events. AB 2140 prohibits the State share for any eligible project from exceeding 75% of total State-eligible costs unless the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with DMA 2000 as part of the safety element of its general plan, in which case the State may exceed the State share of 75% for total state eligible costs.

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 1

AB 2140 the California Government Code, Sections 8685.9 and 65302.6, which authorizes the Legislature to provide for a State share of local costs that exceeds 75% of total state eligible costs where the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with DMA 2000 as part of the safety element of its general plan adopted pursuant to subdivision (g) of Section 65302.

The County adopts the 2017 County of Tulare Multi-Jurisdictional Hazard Mitigation Plan into the Safety Element of the general plan in accordance with the County Board of Supervisors Resolution on _____ 2017. Specific sections of the MJLHMP that correlate to and support the general plan safety element are contained in **Table 1-1**.

Table 1-1: General Plan Safety Element Crosswalk		
General Plan Safety Element	MJLHMP Section	Pages
General 10.1	Throughout	
Specific Hazards 10.2-10.6	5.3	17-46
Emergency Response 10.7		
Noise 10.8		
Healthy Communities 10.9	Throughout	
Work Plan/ Implementation Measures	6.3-6.4	57

1.4 Authority and Adoption

FEMA REGULATION CHECKLIST: PLAN ADOPTION

Adoption by the Local Governing Body

44 CFR § 201.6(c)(5): The local hazard mitigation plan shall include “[d]ocumentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council).”

Element

E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval?

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

The requirements for adoption of this MJLHMP by all local Participating governing bodies, as set forth in the Stafford Act and as amended by DMA 2000 and its implementing regulations, are described below. The County Board of Supervisors approved this MJLHMP on March 20, 2018. The following cities, special districts, and Tribes approved their appropriate sections of the MJLHMP as noted below. The local and tribal mitigation planning requirements are identified in their appropriate sections throughout the 2011 MJLHMP and in **Appendix A, FEMA Local HMP Crosswalk Tool**. This is documented in the governing body meeting resolutions contained in Appendix K.

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 1

- Tulare County
- City of Dinuba
- City of Exeter
- City of Farmersville
- City of Lindsay
- City of Porterville
- City of Tulare
- City of Visalia
- City of Woodlake
- Tulare County Office of Education (participating on behalf of the various County school districts)
- Tule River Tribe

1.5 Grant Programs with Mitigation Plan Requirements

Currently, five FEMA grant programs provide funding to local entities that have a FEMA-approved local mitigation plan meeting Federal hazard mitigation plan requirements. Two of the grant programs are authorized under the Stafford Act. The remaining three programs are authorized under the National Flood Insurance Act and the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act.

1.5.1 Stafford Act Grant Programs

Funding is provided to local, State, and tribal governments that have an approved hazard mitigation plan through the following programs.

Hazard Mitigation Grant Program

The Hazard Mitigation Grant Program (HMGP) provides grants to implement long-term hazard mitigation measures after declaration of a major disaster. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. To qualify for HMGP funding, projects must provide a long-term solution to a problem, and the project's potential savings must exceed the cost of implementing the project.

HMGP funds may be used to protect either public or private property, or to purchase property that has been subjected to, or is in danger of, repetitive damage. The amount of funding available for the HMGP under a particular disaster declaration is limited. Under the program, the Federal Government may provide a State or tribe with up to 20% of the total disaster grants awarded by FEMA under Stafford Act programs, and may provide up to 75% of the cost of any projects approved under the program.

Pre-Disaster Mitigation Program

The Pre-Disaster Mitigation (PDM) Program provides funds to local, State, and tribal entities for hazard mitigation planning and mitigation projects before a disaster event. PDM grants are awarded on a nationally-competitive basis. The cost benefit of a PDM project must be more than the cost of implementing the project. Funds may be used to protect either public or private property or to purchase property that has been subjected to repetitive damage. For 2016 Congress appropriated \$90 million for the PDM program. The Federal Government provides up to 75% of the cost of projects approved under the PDM program.

1.5.2 National Flood Insurance Act Grant Programs

The Flood Mitigation Assistance (FMA) Grant Program was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP). Consistent with Biggert-Waters Flood Insurance Reform Act of 2012 (Public Law 112-141), the FMA Grant Program is focused on mitigating repetitive loss (RL) properties and severe repetitive loss (SRL) properties.

Flood Mitigation Assistance Grant Program

The primary source of funding for the FMA program is the National Flood Insurance Fund. For 2016, Congress appropriated \$199 million for FMA programs. Grant funding is available for planning, project, and technical assistance. Project grants are awarded to local entities to apply mitigation measures to reduce flood losses to properties insured under the NFIP. The cost-share for this grant is 75% federal and 25% nonfederal. However, a cost share of 90% federal and 10% nonfederal is available in certain situations to mitigate SRL properties.

2. Planning Process

The planning process began with the County establishing the planning area and inviting jurisdictions within the planning area to participate in the process. In addition, the County identified the financial and technical resources required to update the MJLHMP. Once all the participating jurisdictions' financial and technical resources were identified, the County developed the planning team and a schedule for the process.

2.1 Overview of Hazard Mitigation Planning

The purpose and benefit of the hazard mitigation process is to conduct long-term, comprehensive planning to protect the County and jurisdictions within it from a disaster before a disaster occurs. Specifically, the County has identified hazards, risks and vulnerabilities, community capabilities and stakeholders during the planning process. Once these were recognized, the jurisdictions identified and prioritized actions for risk reduction to focus resources towards the greatest risks and vulnerabilities. Including stakeholders and the public throughout this process helped identify vulnerabilities and create partnerships, and education opportunities for the community to understand how and why actions are prioritized.

Having a multi-jurisdiction LHMP allows the jurisdictions to combine capabilities and pool resources to recognize synergies and mitigate vulnerabilities on a greater scale. In addition, similar jurisdictions generally have comparable risks and can jointly identify and prioritize mitigation actions.

2.2 Preparing the 2017 Update – Procedure for the Plan Update

The 2011 County MJLHMP was the starting point for updating the MJLHMP. All participating jurisdictions used their previous hazards, assets, capabilities and mitigation actions as the basis for this update. Activity to update the MJLHMP included:

- Review of material on various Federal and State websites such as the National Weather Service the California Governor's Office of Emergency Services (Cal OES) hazard mitigation pages
- Review of progress since the last Plan update
- Review of existing County plans such as the General Plan
- Identification of critical assets
- Hazards identification and risks assessment
- Mitigation strategies development
- Engagement with community in the planning process
- Solicitation and incorporation of feedback from external stakeholders and the public

The most significant changes resulting from this effort include several items. Primarily, new hazards were identified and old hazards revised. The process to update the MJLHMP began with application by the County and award by Cal OES for a Hazard Mitigation Grant. The update process progressed through selection of a consultant who had supported development of the previous plan. Additional activity

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 2

included creation of the MJLHMP planning team. Invitations were sent to the following representatives in **Table 2-1**

Table 2-1: MJLHMP Planning Team Invitees: Cities and County Agencies that Regulate Development			
Jurisdiction	Agency/Department	Name	Position/Title
City of Exeter	Police Department	Cliff Bush	Police Chief
City of Lindsay	Department of Public Safety	Mari Carillo	
Tulare County	County Administrative Office	Eric Coyne	Deputy CAO
Tulare County	County Administrative Office	Mike Spata	County Administrative Officer
Tulare County	General Services	John Hess	
Tulare County	Office of Emergency Services	Andrew Lockman	Manager
Tulare County	Office of Emergency Services	Cheryl Duerkson	Agency Director
Tulare County	Office of Emergency Services	Dave Lee	OES Specialist
Tulare County	Office of Emergency Services	Sabrina Bustamante	OES Specialist
Tulare County	Office of Emergency Services	Timothy Lutz	Fiscal Operations Director
Tulare County	Information & Communications Tech.	Bob Irvine	Division Manager
Tulare County	Resource Management Agency	Ben Ruiz	Interim RMA Director
Tulare County	Sheriff's Office	Larry Micari	Captain
Tulare County	Sheriff's Office	Mike Boudreaux	Sheriff
Tulare County	Sheriff's Office	Robin Skiles	Undersheriff
Tulare County	Sheriff's Office	Sue Gunderman	Administrative Secretary
City of Dinuba	Administration	Luis Patlan	City Manager
City of Dinuba	Fire Department	Chad Thompson	Fire Chief
City of Dinuba	Fire Department	Sean Doyle	Battalion Chief
City of Dinuba	Police Department	Devon Popovich	Chief
City of Dinuba	Public Works	Blanca Beltran	Public Works Director
City of Exeter	Administration	Randy Groom	City Manager
City of Exeter	Police Department	Brett Inglehart	Sergeant
City of Exeter	Public Works	Daymon Qualls	Public Works Director
City of Farmersville	Administration	John Jansons	City Manager
City of Farmersville	Fire Department	John Crivello	Fire Chief

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 2

Table 2-1: MJLHMP Planning Team Invitees: Cities and County Agencies that Regulate Development			
City of Farmersville	Public Works	Dake Wyckoff	Public Works Director
City of Lindsay	Administration	Bill Zigler	City Manager
City of Lindsay	Department of Public Safety	Chris Hughes	Chief
City of Lindsay	Public Works	Mike Camarena	City Services Director
City of Porterville	Administration	John Lollis	City Manager
City of Porterville	Fire Department	Glenn Irish	Fire Chief
City of Porterville	Public Works	Mike Reed	Public Works Director
City of Tulare	Administration	Don Dorman	City Manager
City of Tulare	Fire Department	Cameron Long	Chief
City of Tulare	Fire Department	Willard Epps	Fire Chief
City of Tulare	Public Works	Joseph Carlini	Public Works Director
City of Visalia	Administration	Mike Olmos	City Manager
City of Visalia	Fire Department	Danny Wristen	Chief
City of Visalia	Fire Department	Doug McBee	Fire Chief
City of Visalia	Natural Resources	Lupe Garcia	
City of Visalia	Public Works	Norm Goldstrom	Public Works Manager
City of Woodlake	Administration	Ramon Lara	City Manager
City of Woodlake	Fire Protection District	Anthony Perez	Fire Chief
City of Woodlake	Public Works	Adrian Ornelas	Public Works Supervisor
Tulare County	Agriculture	Marilyn Kinoshita	Ag-Commissioner/Sealer
Tulare County	County Counsel	Jennifer Takehana	Deputy County Counsel
Tulare County	County Counsel	Robyn Henry	Risk Manager
Tulare County	Fire Department	Charles Norman	Fire Chief
Tulare County	Fire Department	Clay Smith	Chief
Tulare County	Fire Department	Jeffery McLaughlin	Chief
Tulare County	General Services	Mike Dickerson	
Tulare County	General Services	Neil Pilegard	Parks Manager
Tulare County	Health and Human Services Agency	Carrie Amador	Staff Services Analyst
Tulare County	Health and Human Services Agency	David Rozell	Manager
Tulare County	Health and Human Services Agency	Jason Britt	Public Health Director
Tulare County	Health and Human Services Agency	Karen Haught	Health Officer
Tulare County	Health and Human Services Agency	Nilsa Gonzalez	Env. Health Director

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 2

Table 2-1: MJLHMP Planning Team Invitees: Cities and County Agencies that Regulate Development			
Tulare County	Information & Communications Tech.	Mark Clark	
Tulare County	Resource Management Agency	Bryce Howard	Director
Tulare County	Resource Management Agency	Dave Bryant	Chief Planner
Tulare County	Resource Management Agency	Dennis Lehman	Manager
Tulare County	Resource Management Agency	Johnny Wong	Engineer
Tulare County	Resource Management Agency	Mike Washam	Director
Tulare County	Resource Management Agency	Reed Schenke	Chief Engineer
Tulare County	Resource Management Agency	Ross Miller	Engineer
Tulare County	Sheriff's Office	Robert Schimpf	Lieutenant
MJLHMP Planning Team Invitees: Special Districts and Tribes			
College of the Sequoias	Police Department	Kevin Mizner	Police Chief
Tulare County Office of Ed	TCOE	Adam Valencia	
Tulare County Office of Ed	General Services	Jeff Ramsay	Director
Tulare County Office of Ed	TCOE	John Caudle	Assistant Superintendent
Tule River Indian Tribe	Administration	Victor Silvas	Tribal Administrator
Tule River Indian Tribe	Emergency Services	Joe Boy Perez	Director of Emergency Services
MJLHMP Planning Team Invitees: Review by Neighboring Counties			
Fresno County	Office of Emergency Services	Ken Austin	Emergency Manager
Kern County	Office of Emergency Services	Georgina Armstrong	Emergency Services Manager
Kings County	Office of Emergency Management	Amanda Verhaege	Emergency Services Coordinator

- The MJLHMP planning team first met on September 1, 2016 for a project kickoff and initial planning team meeting. Details of the meeting are included in **Appendix D**.
- Each participating organization and County agencies were provided with a set of 4 data collection templates. All replied or provided the data at one of the planning team meetings. A representative set of the data collection templates is contained in **Appendix D**.
- The MJLHMP planning team met again on November 29, 2016 to conduct a second group meeting. The meeting focused on reviewing the hazards within the County, confirming/selecting additional hazards and providing an analysis of the selected hazards. Details of the meeting are included in **Appendix D**.
- A third meeting of the MJLHMP planning team was conducted in Visalia on January 17, 2017. The meeting focused on selecting mitigation goals, objectives and activities. Details of the meeting are included in **Appendix D**.

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 2

- A fourth meeting of the MHLHMP planning team was conducted in Visalia on March 17, 2017. The meeting reviewed jurisdiction annexes and addressed the process to prioritize County mitigation activities. Details of the meeting are included in **Appendix D**.
- Once the draft MJLHMP was reviewed by Cal OES and FEMA and prior to adoption, an email was sent to neighboring counties to request their review and comment. Comments are pending, and those that are applicable, will be included in the draft MJLHMP presented for adoption. A copy of the email is included in **Appendix D**.

2.3 Community Engagement Process

Once the planning process commenced, the County provided public notification through its website, and Facebook and Twitter accounts. Additionally, the County conducted an online survey to solicit input on the hazards that the communities face and the types of mitigation activities the County and cities should undertake. The draft MJLHMP was placed on the County and cities websites for public review and comment. Finally, notification of the draft MJLHMP review and adoption by the County Board of Supervisors and City Councils was advertised.

The public survey input from the 12 responders was used to select hazards and rank their affects. Earthquake and energy emergency were ranked as the two top hazards. This input was also used to inform the Hazard Identification and Prioritization Summary contained in **Table 5-13**. Finally, survey input was used to select mitigation actions. Input from posting the draft MJLHMP was used to refine the Plan and prepared it for submission for review. **Appendix E** provides documentation of community outreach efforts and public participation.

The Tule River Tribe recognizes the “public” as all members present on the Tule River Reservation, Off-Reservation Trust Lands, and other tribally owned properties. The Tule River Tribes involvement in the 2017 HMP planning process facilitated adjacent jurisdictions involvement, participation and review. This process assured that the Tule River Tribe’s mitigation actions and projects were viable for all stakeholders.

The 2017 HMP was internally reviewed by various Tribal Departments throughout the document’s development and upon completion, including the Environmental Department, the Community Planning and the Fire Department.

3. Capability Assessment

Assessing the capabilities of the County and the jurisdictions within the County are critical to understanding what resources are available to achieve mitigation goals and actions. The community uses the capabilities to achieve mitigation strategies as well as identify where capabilities can be improved or where they may expose risk. A MJLHMP such as this one is especially advantageous here because the communities can integrate, borrow and/or share resources to achieve broader mitigation strategies. Capabilities are generally categorized as planning and regulatory, administrative and technical, financial, and educational and outreach.

Individual jurisdictions will identify their capabilities in **Annexes A** through **I**. This section will highlight overarching capabilities and identify potential risk.

3.1 Legal and Regulation Capabilities

It is important that the planning team have members from many communities. Each community should bring recent, current, and future projects to the planning table. This will provide both background for planning purposes as well as points of insertion for hazard mitigation strategies. Examples of plans include general plans, capital improvement plans, and emergency preparedness and response plans. Regulatory capabilities include building codes and zoning ordinances. It is important to note these plans and regulations specifically include information for hazard mitigation. Also, this is an opportunity to identify where plans and regulations do not identify mitigation for hazards and could pose a risk to the community.

Table 3-1 outlines the County legal and regulatory capabilities.

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Table 3-1: Legal & Regulatory Capabilities					
Regulatory Tool	Name	Description	Hazards Addressed	Mitigation, Preparedness, Response, or Recovery	Affects development in hazard areas?
Plan	General Plan, Community Safety Element	<p>Describes hazard areas and regulates current and future development based on known hazard areas. The General Plan Safety Element incorporates the MJLHMP by formal adoption by the County Board of supervisors.</p> <p>The MJLHMP will be adopted as part of the Safety Element by the County Board of Supervisors. The General Plan and the MJLHMP will be correlated with respect to climate change and the impacts of planned growth. As the Safety Element is updated, revised hazard analysis from the MJLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	Earthquake, Hazardous Materials, Flooding, Fire	Mitigation, Preparedness	Yes
Plan	OES, Emergency Operations Plan (EOP)	<p>Describes what the local jurisdiction's actions will be during a response to an emergency. Includes annexes that describe in more detail the actions required of the local jurisdiction's departments/agencies. Further, this plan describes the role of the Emergency Operation Center (EOC) and the coordination between the EOC and the local/tribal jurisdictions. Lastly, the EOP describes how the EOC serves as the point of coordination between local, tribal, State, and Federal agencies during a disaster. The MJLHMP provides the basis for the hazards included and described in the EOP.</p> <p>The MJLHMP will be used as an essential tool to update the County EOP. Cal OES requires that EOPs describe applicable hazards as part of the Plan. The latest MJLHMP hazards descriptions will be included. Mitigation actions that are preparedness and response in nature will be analyzed for</p>	All-hazard	Response	No

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Table 3-1: Legal & Regulatory Capabilities					
		applicability to include in the description of EOP processes and procedures.			
Plan	CAL FIRE ¹ Tulare Unit Strategic Fire Plan	<p>The Plan is a local road map to create and maintain defensible landscapes in order to protect vital assets. It seeks to reduce firefighting cost and property loss, increase public and firefighter safety, minimize wildfire risk to communities and contribute to ecosystem health. The Plan identifies pre-suppression projects including opportunities for reducing structural ignitability, and the identification of potential fuel reduction projects and techniques for minimizing those risks. The central goals that are critical to reducing and preventing the impacts of fire revolve around both suppression efforts and fire prevention efforts.</p> <p>The MJLHMP fire hazard analysis and fire related mitigation measures will be provided to Cal Fire to support the Tulare Unit Strategic Fire Plan.</p>	Fire	Response	Yes
Plan	County Resource Conservation District – Sequoia Fire Safe Council Community Wildfire Protection Plan (CWPP)	<p>The objective of the CWPP is to heighten cooperation, collaboration and commitment to watershed protection and fire prevention through the CWPP planning effort. MJLHMP mitigation actions related to wildfire can enhance the CWPP.</p> <p>The MJLHMP fire hazard analysis and fire related mitigation measures will be provided to the Sequoia Fire Safe Council to support the CWPP.</p>	Fire	Mitigation	No
Policy	County Flood Prevention Ordinance (Ordinance Code of Tulare County, Part VII, Chapter 27)	<p>The objective of this policy is to minimize the impacts floods through building restrictions in flood zones and specifically in special flood hazard areas.</p> <p>The MJLHMP contains several specific flood mitigation measures in support of the Flood Prevention Ordinance. Inclusion of the new dam inundation data developed as part</p>	Flooding	Mitigation	Yes

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Table 3-1: Legal & Regulatory Capabilities					
		of the MJLHMP planning process will be included in updates to the Ordinance.			
Plan	County Flood Control Master Plan	<p>This element of the General Plan addresses issues particularly related to flood control along natural watercourses in the County. This adopted Element is incorporated into this General Plan Update document as Chapter 15.</p> <p>The MJLHMP contains several specific flood mitigation measures in support Flood Control Master Plan. Inclusion of the new dam inundation data developed as part of the MJLHMP planning process will be included in updates to the County Flood Control Master Plan.</p>	Flooding	Mitigation	Yes
Plan	Hazardous Waste Management Plan	<p>The County has a hazardous materials management plan to protect the health and safety of all citizens within the County and minimize the risk associated with hazardous materials through the development of policies and procedures.</p> <p>The MJLHMP contains several specific mitigation measures to address hazardous material releases. These mitigation measures will be reviewed for applicability as the Hazardous Material Management Plan is updated.</p>	Hazardous Materials	Mitigation	Yes
Policy	County Ordinance Code Part VII: -Chapter 1, Article 3 -Chapter 19, Articles 1, 3	This policy regulates minimum road width for the emergency vehicle access and egress. Supports fire mitigation actions by setting road width standards to support population evacuation. The MJLHMP contains specific actions that reinforce this requirement.	Fire	Mitigation	Yes
Policy	California Code of Regulations Title 14 Division 1.5 Chapter 7 Subchapter 2 Article 2 § 1273.01	Minimum road width for the emergency vehicle access and egress. Supports fire mitigation actions by setting road width standards to support population evacuation. The MJLHMP contains specific actions that reinforce this requirement.	Fire	Mitigation	Yes

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Table 3-1: Legal & Regulatory Capabilities					
Plan	County Climate Action Plan	<p>Incorporates climate adaptation and resiliency strategies identified in California Government Code 65302 (g)(4). The 2017 MJLHMP adds climate change as a hazard and includes several mitigation measures that advance the objectives of the Climate Action Plan. The MJLHMP contains specific actions that support addressing climate change which can be included in updates to the County Climate Action Plan.</p> <p>The updated MJLHMP addresses climate change as a hazard. Several climate change mitigation activities are included in the MHLHMP. As the Climate Action Plan is updated the information in the MJLMP will be used as a reference to analyze the impacts of climate change and to provide concrete measures to address climate change effects.</p>	Fire, Flooding, Drought	Mitigation	Yes
Plan	Stormwater Quality Management Program (SWQMP)	<p>Describes measures that the local jurisdiction will take to minimize stormwater pollution. The SWQMP is required by the National Pollutant Discharge Elimination System Phase II regulations, which became effective in March 2003.</p> <p>The MJLHMP provides flooding mitigation measures that support implementing the SWQMP. As the SWQMP is updated, the most recent MJLHMP will be used to address flooding mitigation measures as flood incidents often result in storm water discharges that contain pollutants.</p>	Stormwater	Mitigation, Preparedness	Yes

1 California Department of Forest and Fire

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3.2 Administrative and Technical Capabilities

Mitigation actions need to be implemented through administrative and technical capabilities; specifically, staff and their skills to achieve them. The County and all jurisdictions have identified not only government administrative capabilities but contractor and private partner capabilities. The County's administrative and technical capabilities are also resources for all jurisdictions within the planning area. **Table 3-2** represents administrative and technical capabilities either within or available to all jurisdictions within the County.

Table 3-2: Administrative & Technical Capabilities		
Staff/Personnel Resources	Department or Agency	Principle Activities Related to Hazard Mitigation
Planners and Engineers	Resource Management Agency (RMA)	Develops and maintains the General Plan, including the Community Safety Element.
Emergency managers	County Office of Emergency Services (OES)	Maintains the Emergency Operation Plan and other emergency-related plans for the county. Provides support to local response and relief activities within the Emergency Operation Center, and works closely with regional, State, tribal, and Federal partners to provide information and coordinate assistance.
Public Preparedness Education	County Fire, County Sheriff, CAL FIRE, RMA	The County Fire Department has established an on-going public education program implemented through the Fire Prevention Bureau. This function is carried out by the Public Fire Education programs delivered to the public that will reach and educate the general public, high-risk groups, children, elderly and non-English speaking persons.
Geographic Information System (GIS)	RMA	The County shall work with other local agencies, including cities within the County, to develop coordinated GIS planning that identifies and maps the location of all public facilities and emergency response agencies. Contingency plans for emergency response and recovery should be incorporated into this mapping system.
Floodplain Manager	RMA	Reviews and ensures that new development proposals do not increase flood risk, and that new developments are not located below the 100-year flood level. In addition, the Floodplain Administrator is responsible for planning and managing flood risk reduction projects throughout the plan participant or tribal area.
Disaster Service Workers	Human Resources & Development	The County maintains a program for training County staff in disaster preparedness and response.

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Table 3-2: Administrative & Technical Capabilities		
Emergency Operations Centers (EOCs) and Department Operations Centers (DOCs)	The County, all Cities, Tule River Tribe, all special districts, and critical departments within the County and cities	Within the Tulare Operational Area (OA), the local government Emergency Management Organization (EMO) level encompasses these EOCs and DOCs, which activate and direct their respective resources in accordance with their individual needs and priorities.
Field Response Units	Law enforcement, fire and rescue, hazardous materials, emergency medical services, public health, environmental health, public works and utility personnel	Assess, secure and mitigate the effects of the incident.
Multi-Agency Coordination Group	Tulare County Operational Area Emergency Council members	Provides incident and resource prioritization, and coordinates response to the incident by all local units and jurisdictions.
Schools and non-government organizations	Schools, American Red Cross, Salvation Army, religious institutions	Critical support services.

3.3 Financial Capabilities

The County and included jurisdictions as well as State and Federal agency programs may provide resources to fund mitigation actions. Each mitigation action must be analyzed for costs and whether funding is available for its implementation. The analysis supports prioritizing of mitigation actions. An aggregated assessment of financial capabilities will assist the County and jurisdictions in selecting mitigation actions. For the 2017 MJLHMP, the County has identified resources for several large-scale mitigation projects. **Table 3-3** outlines the County's financial capabilities.

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Table 3-3: Financial Capabilities				
Type	Name	Administrator	Purpose	Amount/Availability
Local	General Fund	Auditor-Controller, Treasurer-Collector	Program operations and specific projects	Variable
Local	General Obligation (GO) Bonds	Auditor-Controller, Treasurer-Collector	GO Bonds are appropriately used for the construction and/or acquisition of improvements to real property broadly available to residents and visitors. Such facilities include, but are not limited to, libraries, hospitals, parks, public safety facilities, and cultural and educational facilities.	Variable
Local	Lease Revenue Bonds	Auditor-Controller, Treasurer-Collector	Lease revenue bonds are used to finance capital projects that (1) have an identified budgetary stream for repayment (e.g., specified fees, tax receipts, etc.); (2) generate project revenue but rely on a broader pledge of general fund revenues to reduce borrowing costs; or (3) finance the acquisition and installation of equipment for the plan participant's general governmental purposes.	Variable
Local	Public-Private partnerships	County Administrator, Various Departments	Includes the use of local professionals, business owners, residents, and civic groups and trade associations, generally for the study of issues and the development of guidance and recommendations.	Variable
Federal	Hazard Mitigation Grant Program (HMGP)	Federal Emergency Management Agency (FEMA)	Support post-disaster mitigation plans and projections.	Available to communities after a Presidentially declared disaster has occurred. Grant award based on specific projects as they are identified.
Federal	Pre-Disaster Mitigation (PDM) grant program	FEMA	Support pre-disaster mitigation plans and projects.	Available on an annual basis, nationally-competitive grant. Grant award based on specific projects as they are identified.

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Table 3-3: Financial Capabilities				
			The MJLHMP will be used to develop PDM grant applications using the prioritized mitigation actions that are included.	
Federal	Flood Mitigation Assistance (FMA) grant program	FEMA	Mitigate repetitively-flooded structures and infrastructure.	Available on an annual basis, distributed by California Governor's Office of Emergency Services (Cal OES). Grant award based on specific project as they are identified.
Federal	Assistance to Firefighters Grant (AFG) Program	FEMA/U.S. Fire Administration (USFA)	Provides equipment, protective gear, emergency vehicles, training, and other resources needed to protect the public and emergency personnel from fire and related hazards.	Available to fire departments and nonaffiliated emergency medical services. Grant award based on specific projects as they are identified.
Federal	Community Action for a Renewed Environment (CARE)	U.S. Environmental Protection Agency (EPA)	Through financial and technical assistance, offers a way for a community to organize and act to reduce toxic pollution locally. Through CARE, a community creates a partnership that implements solutions to reduce releases of toxic pollutants and minimize human exposure.	Competitive grant program. Grant award based on specific projects as they are identified.
Federal	Clean Water State Revolving Fund (CWSRF)	EPA	A loan program that provides low-cost financing to eligible entities within State land for water quality projects, including all types of non-point source, watershed protection or restoration, estuary management projects, and more traditional municipal wastewater treatment projects.	Through CWSRF, the EPA has provided more than \$5 billion annually to fund water quality protection projects for wastewater treatment, nonpoint source pollution control, and watershed and estuary management.
Federal	Public Health Preparedness Cooperative Agreement	US Centers for Disease Control and Prevention (CDC)	Funds are intended to upgrade State and local public health jurisdictions' preparedness and response to bioterrorism, outbreaks of infectious diseases, and other public health threats and emergencies.	Competitive grant program. Grant award based on specific projects as they are identified.

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3.4 Education and Outreach Capabilities

The County and jurisdictions within the planning area have integrated the following education and outreach capabilities through the hazard mitigation 5-year planning cycle.

Table 3-4: Education and Public Outreach Capabilities

Type	Name	Description	Hazards Addressed	Mitigation, Preparedness, Response, or Recovery	Audience
Education	Tulare County Resource Management Agency Web Site	A user-friendly source of Tulare County Flood hazard information. It includes quick links to the Federal Emergency Management Agency's floodplain map website and the California Department of Water Resources floodplain map website. In addition, it contains user friendly links to flood information contained in existing, updated or newly adopted Community Plans.	Flood	Mitigation, Preparedness	Unincorporated County Communities
Education	OES Website	A user-friendly source of preparedness information on a variety of hazards. It includes links to California's MyHazards portal and the Hazard Mitigation Plan, Tulare County Disaster Preparedness Guide, and other preparedness resources, as well as incident-specific Response and Recovery information.	All	Mitigation Preparedness Response Recovery	Entire Operational Area
Education	2011 Tulare County Preparedness Guide	A resource for the public to learn about local hazards, available resources, and personal, family, and business preparedness measures. Information from the updated MJLHMP will be reviewed for inclusion the County Preparedness Guide as it is updated.	All	Preparedness	Entire Operational Area
Outreach	Tulare County Social Media	Tulare County social media accounts, including the main Tulare County account and those operated by the Fire Department, Sheriff's Department, Health & Human Services Agency, and others are utilized to disseminate mitigation (i.e. fuel reduction), preparedness (i.e. emergency kit), response (i.e. evacuation / shelter information), and recovery (i.e. available	All	Mitigation Preparedness	Entire Operational Area

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Table 3-4: Education and Public Outreach Capabilities

		assistance programs) information at relevant phases within the disaster cycle. (same as above).			
		The updated MJLHMP will be posted to County media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.			
Outreach	Town Hall / Town Council Meetings	<p>Tulare County participates in a variety of regular town hall / council meetings in unincorporated communities. Topics of meetings include public safety issues and mitigation activities. Tulare County RMA has conducted over 200 such public meetings in the past 5 years, a majority of which included mitigation topics, and has incorporated the feedback from these meetings into planning documents such as the General Plan and MJLHMP.</p> <p>Information on the availability and contents will be provided during RMA public meetings.</p>	All	Mitigation Preparedness	Entire Operational Area

3.5 Previously Implemented Mitigation Measures.

Table 3.5 contains the status of the 2011 MJLHMP County-wide mitigation actions. Those that were not completed or are ongoing have been included in the 2017 MJLHMP where applicable and so noted. Items cited as ongoing in the 2017 Plan are located in **Tables 6.2 and 6.3**.

Table 3.5: Previously Plan Mitigation Actions Status

No.	Description	Mitigation	Hazard	Status
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such as high and/or very high wildfire areas.	Property Protection	All	Ongoing. Include in 2017 Plan as action 1-1.
2	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	Property Protection	All	Ongoing. Included in 2017 Plan as action 1-2.

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3	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	Property Protection, Structural Project	Earthquake	Ongoing. Included in 2017 Plan as action 1-9.
4	Seismically retrofit or replace County and local ramps and bridges that are categorized as structurally deficient by Caltrans, are located in a high ground shaking areas, and/or are necessary for first responders to use during and/or immediate after a disaster or emergency.	Property Protection, Structural Project	Earthquake	Ongoing: The County has been replacing structurally deficient bridges. Currently, about 30 bridges have been identified for replacement
5	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	Public Outreach	Flood	Ongoing. Included in 2017 Plan as action 2-2. See RMA Website. http://tularecounty.ca.gov/rma/index.cfm/public-works/flood-hazard-information/
6	Create a database that accounts for all levees in Tulare County and their condition.	All	Flood	Incomplete. Carried over in 2017 Plan as action 1-22.
7	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	Property Protection	Flood	Continuing. Included in 2017 Plan as action 1-23.

No.	Description	Mitigation Category	Hazard Addressed	Status
8	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	Property Protection	Flood	Continuing. Included in 2017 Plan as action 1-24.
9	Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	Property Protection, Structural Project	Flood	Ongoing. The County has been reviewing bridges for hydraulic issues. This is part of the 30 bridges to be replaced.
10	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide Digital Flood Insurance Rate Map (DFIRM), Community Assessment Visits, and/or the Department of Water Resources (DWR).	All	Flood	Ongoing. Included in 2017 Plan as action 1-26.

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11	Increase participation in the National Flood Insurance Program (NFIP) by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	Prevention, Property Protection	Flood	Ongoing. Included in 2017 Plan as action 1-27. Needs to be addressed by individual jurisdictions.
12	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog conditions*.	Prevention	Fog	Ongoing. Included in 2017 Plan as action 4-5. Incorporated into Alert Tulare County mass notification warning system.
13	Implement post-fire debris flow hill-slope and channel treatments, such as seeding, mulching, and checking dams and debris racks, as needed.	Prevention, Property Protection	Post-Fire Debris Flow	Ongoing. Ongoing. Included in 2017 Plan as action 1-39.
14	Manage vegetation in areas within and adjacent to rights-of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.	Prevention, property protection, natural resource protection	Severe Winter Storm	Ongoing. Have been clearing rights of way of vegetation and dead trees. Included in 2017 Plan as action 1-40.
15	Develop a free annual tree chipping and tree pick-up day that encourages residents living in wind hazard areas to manage trees and shrubs at risk to falling on nearby structures.	Property Protection	Severe Winter Storm	Ongoing. Included in 2017 Plan as action 1-41.

No.	Description	Mitigation Category	Hazard Addressed	Status
16	Bolt down the roofs of critical facilities in wind gust hazard areas in order to prevent wind damage.	Property Protection	Severe Winter Storm	Ongoing. Included in 2017 Plan as action 1-42.
17	Implement a fuel reduction program, such as the collection and disposal of dead fuel, within open spaces and around critical facilities and residential structures located within a high and very high wildfire zones.	Prevention, property protection, natural resource protection	Wildfire	Ongoing. County is included in State Tree Mortality Proclamation. Included in 2017 Plan in actions 1-17 and 1-22.

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18	Create a vegetation management program that provides vegetation management services to elderly, disabled, or low-income property owners who lack the resources to remove flammable vegetation from around their homes.	Property Protection	Wildfire	Ongoing. Scope broadened and included in 2017 Plan as action 1-17.
19	Develop a community wildfire mitigation plan that identifies and prioritizes areas for hazard fuel reduction treatments, and recommend the types of methods of treatments.	Prevention, Property Protection	Wildfire	Incomplete. Included in 2017 Plan in actions 1-16 and 1-17.
20	Implement a fuel modification program, which also includes residential maintenance requirements and enforcement, plan submittal and approval process, guidelines for planting, and a listing of undesirable plant species. Require builders and developers to submit their plans, complete with proposed fuel modification zones, to the local fire department for review and approval prior to beginning construction.	Prevention, Property Protection	Wildfire	Ongoing. Included in 2017 Plan as actions 1-18 through 1-20

4. Community Profiles

This section describes the community profiles for each jurisdiction that participated in the development and adoption of the 2017 MJLHMP. Participating jurisdictions include:

- Tulare County
- City of Dinuba
- City of Exeter
- City of Farmersville
- City of Lindsay
- City of Porterville
- City of Tulare
- City of Visalia
- City of Woodlake
- Tulare County Office of Education (participating on behalf of the various County school districts)
- Tule River Tribe

4.1 Geography and History

The County, located in central California, is geographically diverse. Nearly half of the land in the County lies within national parks or national forests. Overall, the County is divided into three general topographical zones: a valley region, a foothill region, and a mountain region. The eastern portion (approximately 50%) of the County lies in the Sierra Nevada mountain range, and the western half of the County is situated on the San Joaquin Valley floor. The County is bordered by Fresno County to the north, Kings County to the west, Kern County to the south, and Inyo County to the east. The County is approximately 22 miles from the larger city of Fresno (to the north) and 33 miles from the larger city of Bakersfield (to the south), about 275 miles from San Francisco, and 175 miles from Los Angeles. The County has an area of 4,839 square miles; approximately 15 square miles in the County are covered by water and the remaining 4,824 square miles are occupied by land. Elevations in the County range from 207 feet above sea level to Mount Whitney at 14,505 feet above sea level, the highest summit in the contiguous U.S. (situated at the boundary between the County and Inyo County).

The County's climate varies by location and elevation. The majority of the population in the County lives in the valley region, where the climate is warm and dry, with hot summers (temperatures in July normally reach 100 degrees Fahrenheit) and fairly mild winters. In the mountain communities, winters are colder and summers not quite as hot. Above 7,000 feet, winters can be severe, with year-round snow at the highest elevations. The rainy season lasts from October through April. Average rainfall is 10.5 inches per year. Although ice and snow are rare on the valley floor, the snowpack in the mountains often measures more than 200 inches. Fog is common in the County, particularly in the winter months, although it can also occur in the summer.

The original inhabitants of the County were Yokut-speaking tribes, who populated much of the San Joaquin Valley. In 1772, while exploring the Tulare area, a Spanish commander discovered a great lake surrounded by marshes and filled with rushes. He named this lake Los Tules (the tules), from which the name Tulare is derived. Settlers first inhabited the present-day area of Visalia. The County was established

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in 1852; originally, the County encompassed a much larger area. Over the years, territory was taken from the County to create Fresno, Mono, Kern, Inyo and Kings Counties. It was not until 1893 that the present boundaries of the County were established. The County has eight incorporated cities (Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake); 39 unincorporated communities; and the Tule River Indian Reservation.

4.2 Government:

The County government consists of five county supervisors and one County Administrative Officer. The Board of Supervisors serves as both the legislative and executive governing body of the County. The Board hires the County Administrative Officer, who is responsible for carrying out the policy decisions made by the Board and for the day to day operations of the County. The Board also hires the County Counsel, who is the County's legal advisor.

4.3 Economy:

Tulare County, like many agricultural areas in the San Joaquin Valley, finds itself facing the first half of the 21st century coping with new growth and opportunities. While this may be said of nearly all of California, the challenge in Tulare County is compounded by an economy in transition. Historically, agriculture drove Tulare County's economy. For most of the past 100 years, Tulare County has had one of the largest agricultural outputs of any County in the U.S. Despite a strong agriculturally-based economy, Tulare County's unemployment rate has remained much higher than the State average because of the seasonal nature of agricultural employment.

The County and cities have undertaken a major effort to promote Tulare County as a location for new and expanded industry. Targeted industries include recreation and tourism, computer products and software, electronics, apparel, insurance, agricultural equipment, food processing, transportation and logistics (warehousing, transportation, and call centers), and commercial retail establishments. The historical balance between housing and jobs in the region is not expected to be disrupted by this effort.

The largest category of all wage and salary employment in the County is within education, health care and social services, accounting for 31,085 jobs, which represent 19.5% of the total civilian labor force. Following closely in second is agriculture with 27,075 jobs at 17%, and retail is third providing 17,001 jobs. Agriculture continues to be a dominant industry in the County. Major growth is expected to continue in the fields of agri-business and service industries in future years.

The County is one of the most productive farming areas in the world, with exports to more than 89 countries worldwide. Local farmers and ranchers produced food and fiber products with a wholesale value of \$6.98 billion in 2015. This represents a 13.7% decrease above 2014's value. These production values are based on 120 different crops grown locally; 45 crops exceed \$1 million in annual commodity value. The County is the number one county for annual milk production in the State and nation, totaling more than \$1.7 billion, according to the 2015 County Agricultural Crop and Livestock Report. The dairy industry and its primary customer, cheese manufacturers, support year-round and permanent job placement, thus adding to the stability and sustainability of pervasive agricultural activity.

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The second-largest industry in the County is manufacturing, which employed 8% of the working population. Although the agricultural and the manufacturing industries are vital to the County's economy, "local support industries" are the fastest growing industries in the County. Local support industries are described as those industries whose fortunes are closely tied to population growth. Within the County, these industries are finance-insurance-real estate, construction, and government. As the population increases in the Central San Joaquin Valley, local support industries (e.g., real estate) will do more business (e.g., sell more homes) and thus create more jobs in other population-dependent local support industries such as construction.

4.4 Demographics:

With 459,863 people, (U.S. Census Bureau, QuickFacts 2015) the County is the 18th most populated county in California out of 58 counties. Metropolitan areas include Visalia with a population of 130,104; Tulare with 61,867 people; and Porterville with 55,466 people. While the County had one of the higher population growth rates in the State between the 2000 and 2010 census with population increasing by 20.2%, population growth between 2010 and 2015 was just 4%. Hispanic and Latinos are the largest ethnic group in the County, representing 63.6% of the population, with Non-Hispanic Whites accounting for 29.6% of the population. Asians, Native Americans and Blacks who make up 4%, 2.8% and 2.2% respectively, constitute the remainder of the population. Just below 50% of the population is under 18 years of age.

There are 132,706 households in the County with an average of 3.36 persons per household. Average household income was \$42,863 per year. The poverty rate was 28.7%. Slightly over 50% of the population spoke a language other than English at home. The high school graduation rate was 68%. Slightly over 13% of the County had a college degree or higher level of education.

Incorporated Cities:

There are eight incorporated cities in the County:

- Dinuba
- Exeter
- Farmersville
- Lindsay
- Porterville
- Tulare
- Visalia
- Woodlake

Each of these cities is described separately in the subsequent sections.



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Unincorporated Communities:

The County contains 39 unincorporated communities and census-designated places. Some are little more than place names from past history (often when they had their own post offices), but others are active communities.

- Western Tulare County, Valley communities: Allensworth, Alpaugh, Angiola, Cairns Corner, Calgro, Cutler, Ducor, Earlimart, East Orosi, East Porterville, Goshen, Ivanhoe, Lemon Cove, Lindcove, London, Monson, Okieville, Orosi, Pixley, Poplar-Cotton Center, Richgrove, Seville, Strathmore, Sultana, Terra Bella, Tipton, Traver, Waukena, Woodville, Yettem, and Zante.
- Eastern Tulare County, Mountain communities: Advance, Badger, Balance Rock, California Hot Springs, Camp Nelson, Johnsdale, Kaweah, Posey, Springville, and Three Rivers.

City of Dinuba

The City of Dinuba (Dinuba) is in the northwestern corner of the County, approximately 20 miles north of the City of Visalia (Visalia), the County seat.

- Area: 6.47 square miles
- Population: 23,702
- % population under age 18: 45.1% (2010 data)
- Labor force age 16 and over: 65%
- Education: High school 57.0%, College level or higher 6.5%
- Income: Median household \$38,509, Poverty level 28.3%
- Housing units: 5,964

Data from US Census QuickFacts 2015

City of Exeter

The City of Exeter (Exeter) is just south of the intersection of State Route (SR) 65 and SR 198, about 7 miles east of Visalia.

- Area: 2.26 square miles
- Population: 10,774
- % population under age 18: 47.4% (2010 data)
- Labor force age 16 and over: 61.9%
- Education: High school 55.4%, College or higher level 3.2%
- Income: Household \$32,455 per year, Poverty level 32.4%
- Housing units: 2,726

Data from US Census QuickFacts 2015

City of Farmersville

The City of Farmersville (Farmersville) is 5 miles east of Visalia.

- Area: 2.3 square miles
- Population: 10,588
- % population under age 18: 36.8% (2010 data)
- Labor force age 16 and older: 58.2%

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- Education: High school 39.8%, College or higher level 2%
- Income: Household \$32,455 per year, Poverty level 30.2%
- Housing units: 2,670

Data from US Census QuickFacts 2015

City of Lindsay

The City of Lindsay (Lindsay) is on SR 65 about 15 miles southeast of Visalia.

- Area: 2.61 square miles
- Population: 13,217
- % population under age 18: 49.9% (2010 data)
- Labor force age 16 and older: 63.2%
- Education: High school 47.4%, College level or higher 6.5%
- Income: Household \$30,198, Poverty level 44.1%
- Housing units: 3,193

Data from US Census QuickFacts 2015

City of Porterville

The City of Porterville (Porterville) is along SR 65, just north of SR 190, about 22 miles southeast of Visalia.

- Area: 17.61 square miles
- Population: 56,058
- % population under age 18: 43.3% (2010 data)
- Labor force age 16 and older: 60.1%
- Education: High school 67.7%, College level or higher 10%
- Income: Household \$41,267, Poverty level 28.8%
- Housing units: 16,734

Data from US Census QuickFacts 2015

City of Tulare

The City of Tulare (Tulare) is along Highway 99 about 11 miles south of Visalia.

- Area: 20.93 square miles
- Population: 62,315
- % population under age 18: 42.7% (2010 data)
- Labor force age 16 and older: 61.5%
- Education: High school 72.6%, College level or higher 10.7%
- Income: Household \$46,387, Poverty level 21.6%
- Housing units: 18,863 (2010 data)

Data from US Census QuickFacts 2015

City of Visalia

The Visalia is the County seat. Visalia is along SR 198, about 230 miles southeast of San Francisco and 190 miles north of Los Angeles.

- Area: 36.25 square miles
- Population: 130,104
- % population under age 18: 38.7% (2010 data)

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- Labor force age 16 and older: 63.3%
- Education: High school 82.4%, College level or higher 21.9%
- Income: Household \$52,262, Poverty level 20.5%
- Housing units: 44,205 (2010 data)

Data from US Census QuickFacts 2015

City of Woodlake

The City of Woodlake (Woodlake) is about 14 miles northeast of Visalia.

- Area: 2.25 square miles
- Population: 7,654
- % population under age 18: 46.7% (2010 data)
- Labor force age 16 and older: 65.9%
- Education: High school 52.6%, College level or higher 7.2%
- Income: Household \$35,509, Poverty level 26.9%
- Housing units: 2,067 (2010 data)

Data from US Census QuickFacts 2015

Tule River Tribe

The Tule River Indian Reservation is approximately 85 square miles. The reservation is located in a remote rural area approximately 20 miles from the nearest town of Porterville. The Tribe also owns 40 acres in the Porterville Airport Industrial Park and 79.9 acres in the foothill scenic development corridor along Highway 190. The tribe consists of Yokut, Western Mono, and Tubatulabal peoples, and as of 2009 the tribal population was approximately 997 people. The Tule River Tribal Council, which was created by the constitution and bylaws of the Tule River Tribe and approved January 15, 1936, conducts executive, legislative, and business functions. The Tribal Council consists of nine council members elected by secret ballot. The elected officials then decide who will perform the functions of chairman, vice chairman, secretary, and treasurer.

4.5 Land Use and Developing Trends

As of 2016, Tulare County encompasses over 4,839 square miles of land. Federal lands including wilderness, national forests, monuments, and parks make up approximately 52.2%, the largest percentage found in the County. Agricultural uses, which include row crops, orchards, dairies, and grazing lands on the valley floor and in the foothills total over 2,080.7 square miles or approximately 43% of the entire County. Other uses such as County parks, urban uses in incorporated cities, communities, hamlets, and infrastructure rights-of-way, etc., make up the remaining land in the County.

The population of Tulare County was 442,148 based upon the 2010 census and estimated to be 459,863 in 2015², which is an increase of 17,715 persons, or 4% from 2010 to 2015. Population density was 91.7 persons per square mile. The population resides 85% in urban settings and 15% rural areas. The growth of the population of California during the same period was 9.12%. Slow growth in the County is attributable to the recession of 2009 to 2011 and to the severe drought from 2011 through 2016.

² U.S. Census

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The Tulare County General Plan 2030 Update (General Plan Update) was adopted by the Board of Supervisors in August 2012. The 2015 Housing Element (GPA 15-003) was adopted by Tulare County Board of Supervisors in November 2015 and was approved (certified) by the State Department of Housing and Community Development (HCD) by letter dated December 9, 2015. The Health and Safety Element was updated and adopted by the Board of Supervisors in November 2016. The General Plan Update provides a comprehensive, long-term plan for the physical development of the County. The General Plan Update consists of development policies that set forth the objectives, principles, and standards to guide land use decisions within the County.

The Planning Framework Element modernizes the policies of the Urban Boundary Element around the cities and unincorporated communities in the County and formalizes the Hamlet Development Boundaries and Mountain Service Centers. The effect of this element will be to standardize land use policies to direct new growth to areas near existing growth. The purpose of this policy is to make unincorporated areas economically viable, create mixed land uses that promote jobs-housing balance which in turn reduce work commuting distances to facilitate reductions in greenhouse gas emissions.

One of the highlights of the General Plan Update is that it directs most development toward areas near the incorporated cities but allows for economic development in the unincorporated communities, while protecting and facilitating the development of the County's extensive agricultural, scenic, cultural, historic, and natural resources. This part of the General Plan Update is an important part of the County's desire to raise the quality of life for residents in smaller communities. The General Plan Update also addresses climate change, which is a new and important factor in county planning. The Tulare County Climate Action Plan (CAP) serves as a guiding document for County of Tulare ("County") actions to reduce greenhouse gas emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the 2030 General Plan Update. The General Plan provides the supporting framework for development in the County to produce fewer greenhouse gas emissions during Plan buildout. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation. At present, the General Plan Update, The Health and Safety Element Update Tulare County Supplemental Program Environmental Impact Report, The Tulare County General Plan Background Report, and the Draft Tulare County Climate Action Plan are available to the public at the following location: <http://generalplan.co.tulare.ca.us/index.asp>.

Tule River Tribe Land Use and Development Trends

The Tule River Indian Reservation covers almost 85 square miles and is located in the remote rural areas of the Sierra Nevada Mountains. Most of the land on the reservation is underdeveloped and covered by oak woodlands and conifer forests. The Reservation is accessible only by one winding paved road that follows the South Fork of the Tule River. The isolated, rugged setting allows for privacy and development independent from urban or recreational sprawl. The Tribe also owns 40 acres in the Porterville Airport Industrial Park and 79 acres in the foothill scenic development corridor along Highway 190. The Eagle Feather Trading Post, once of the largest convenience stores in Tulare County, is located on Highway 190, but the majority of the Tribe's acreage in the scenic development corridor along Highway 190 remains undeveloped. The 40 acres in the industrial park, referred to as the "Airpark," was the start of the Tule River

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Tribe's economic expansion beginning in the late 1980's. Intended as a diversification from the Tribe's lumbering operations, the Airpark is now home to a variety of businesses and organizations including flood services, Federal agencies and storage/warehouse.

Development in Hazard Prone Areas

Because population growth was less than one percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the County. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

Updated dam inundation maps include a much larger area of the County. While little new development occurred in the expanded inundation zones, vulnerability to dam inundation increased substantially and now includes most of the most populace areas of the County. Updated dam inundation maps for the County and affected cities are included in **Appendix B**.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire County. Development in the County, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

4.6 Assets (Services & Facilities)

Community assets can be identified and integrated into the MJLHMP. Identifying assets already available to the communities can reduce redundancies (especially in a multi-jurisdictional plan) as well as optimize/reinforce current assets. Each community in this MJLHMP has included an asset inventory in **Annexes A** through **I**.

The individual asset inventory includes the identification of:

- **People** – This includes population estimates, visiting population estimates (migrants, national parks or special events) and persons with disabilities and other access or functional needs population.
- **Economy** – Economic drivers include building assets but also include inventory within buildings, downtime and loss of wages. In addition, primary economic sectors (major employers) where their loss would have a significant impact to the community.
- **Built Environment** – Existing structures, infrastructure systems, critical facilities, cultural resources, and future development.
- **Natural Resources** – Critical habitats and areas that provide protective functions.

County facilities are included in **Tables 4-1** through **4-6**. Due to the extensive number, Department of Transportation bridges and culverts are depicted in **Appendix G**. All County facilities are subject to the effects of climate change. City and other jurisdiction owned facilities are listed in **Appendix J, Annexes A -J**. Contents and furnishings of facilities, vehicles small ancillary structures are not listed.

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Table 4-1: Department of Transportation Road Maintenance Facilities						
District	Name	Location	Associated Hazards	CNG Station	Fuel Station	Replacement Cost
1	Camp Nelson Yard	447 Trails End, Camp Nelson	Drought, Freeze, Winter Storms, Wildfire		\$100,000	\$665,000
1	Porterville Road Yard	1243 W N Grand Ave, Porterville	Drought, Earthquake, Fog, Dam Inundation		\$300,000	\$1,595,081
2	Central Shop	14001 Ave 256, Visalia	Drought, Earthquake, Fog, Dam Inundation	\$500,000	\$300,000	\$10,917,250
2	Pixley Yard	1493 S Airport Dr, Visalia	Drought, Earthquake, Fog, Dam Inundation		\$300,000	\$1,004,000
2	Soil Lab	14001 Ave 256, Visalia	Drought, Earthquake, Fog, Dam Inundation			\$1,738,500
2	Traffic Control	14001 Ave 256, Visalia	Drought, Earthquake, Fog, Dam Inundation			\$1,453,500
2	Visalia Yard	14001 Ave 256, Visalia	Drought, Earthquake, Fog, Dam Inundation			\$6,967,415
4	Badger Road Yard	49494 Whittaker Forest Dr, Badger	Drought, Freeze, Winter Storms, Wildfire		\$100,000	\$456,839
4	Dinuba Yard	1155 E Kamm Ave, Dinuba	Drought, Earthquake, Fog,		\$400,000	\$3,063,250
4	Three Rivers Yard	40127 Pierce Dr, Three Rivers	Drought, Freeze, Winter Storms, Wildfire		\$100,000	\$527,500
5	Terra Bella Road Yard	23689 Camphor Ave, Terra Bella	Drought, Earthquake, Fog, Dam Inundation		\$300,000	\$1,399,081
Total						\$29,787,416

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Table 4-2: County Fire Department Stations			
Station	Address	Associated Hazards	Replacement Cost
Tulare County Fire Administration Building	835 S Akers St, Visalia	Earthquake, Dam Flood, 500-Year Floodplain, Fog	Unknown
Tulare County Fire Communications Center	11871 Ave 272, Visalia	Earthquake, Dam Flood, 500-Year Floodplain, Fog	\$278,118
Tulare County Fire Station #02	3811 Ave 400, Kingsburg	Earthquake, Fog	\$210,872
Tulare County Fire Station #03	40404 Rd 80, Dinuba	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Freezing	\$1,264,942
Tulare County Fire Station #04	40779 Rd 128, Cutler	Earthquake, 100-Year Floodplain, Dam Flood, Fog	\$610,296
Tulare County Fire Station #05	45656 Old Stage Rd, Posey	Freezing, Severe Winter Storm, Wildfire	\$6,224
CAL FIRE Milo Forest Fire Station	360 E Hermosa St, Lindsay	Earthquake, Freezing, Wildfire	Unknown
Tulare County Fire Station #06	45122 Manter Meadow Dr, California Hot Springs	Earthquake, Fog, Wildfire	\$668,274
Tulare County Fire Station #07	30901 Rd 67, Visalia	Dam Flood, Earthquake, Fog	\$59,021
Tulare County Fire Station #08	32868 Hawthorne Rd, Ivanhoe	Earthquake, Dam Flood, Fog	\$617,138
Tulare County Fire Station #09	3939 Ave 54, Alpaugh	Earthquake, Freezing, Fog	\$219,815
Tulare County Fire Station #10	20890 Grove Dr, Richgrove	Dam Flood, Earthquake, Fog	\$280,829
Tulare County Fire Station #11	137 N F St, Exeter	Dam Flood, Earthquake, 500-Year Floodplain, Fog	Unknown
Tulare County Fire Station #12	216 E Naranjo Blvd, Woodlake	Earthquake, Dam Flood, Fog	Unknown
Tulare County Fire Station #13	32490 Sierra Dr, Woodlake	Earthquake, Dam Flood, 100-Year Floodplain	\$628,454
Tulare County Fire Station #14	41412 S Fork Dr, Three Rivers	Freezing, Severe Winter Storms, Wildfire	\$511,922
Tulare County Fire Station #15	19603 Ave 228, Lindsay	Earthquake, Fog	\$870,661
Tulare County Fire Station #16	22908 Ave 196, Strathmore	Earthquake, 100-Year Floodplain, Fog	\$233,925
Tulare County Fire Station #17	51345 Eshom Valley Dr, Bager	Freezing, Severe Winter Storms, Wildfire	
Tulare County Fire Station #18	99075 Goman Ave, Inyokern	Earthquake, Freezing, Severe Winter Storms, Wildfire	\$479,560
Tulare County Fire Station #19	22315 Ave 152, Porterville	Earthquake, 100-Year Floodplain, Dam Flood, Fog, Freezing	\$891,117
Tulare County Fire Station #20	1551 E Success, Porterville	Earthquake, Dam Flood, Fog	\$920,010
Tulare County Fire Station #21	23658 Ave 95, Terra Bella	Earthquake, Fog	\$679,477
Tulare County Fire Station #22	35659 Hwy 190, Springville	Fire, Earthquake, Freezing, Severe Winter Storms, Wildfire	\$775,280

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Table 4-2: County Fire Department Stations			
Station	Address	Associated Hazards	Replacement Cost
Tulare County Fire Station #23	1500 Nelson Dr, Springville	Earthquake, Freezing, Severe Winter Storm, Wind, Wildfire	\$724,396
Tulare County Fire Station #24	2802 Ave 192, Tulare	Earthquake, 100-Year Floodplain, Dam Flood, Fog, Freezing	\$187,321
Tulare County Fire Station #25	2082 Foster Dr, Tulare	Earthquake, Dam Flood, Fog	\$928,587
Tulare County Fire Station #26	241 S Graham Rd, Tipton	Earthquake, Fog, Dam Flood	\$299,540
Tulare County Fire Station #27	200 N Park Rd, Pixley	Earthquake, 100-Year Floodplain, Fog	\$892,342
Tulare County Fire Station #28	808 E Washington Ave, Earlimart	Earthquake, Fog, Dam Flood	\$591,556
Tulare County Fire Supply Center	16756 Ave 168, Tulare	Earthquake, Fog, Dam Flood	\$314,857
Total			\$14,144,534

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Table 4-3: County Libraries			
Branch	Address	Associated Hazards	Replacement Cost
Alpaugh Public Library	3816 Ave 54, Alpaugh	Earthquake, Fog, Freezing	\$670,944
Alta Vista Library Kiosk	2293 E Crabtree Ave, Porterville	Earthquake, 100-Year Floodplain, Dam Flood, Fog	\$34,520
Cutler Library Kiosk	40526 Orosi Dr, Orosi	Earthquake, Fog	\$30,920
Earlimart Public Library	780 E Washington St, Earlimart	Earthquake, Fog	\$701,436
Exeter Public Library	230 E Chestnut, Exeter	Earthquake, 500-Year Floodplain, Fog	\$2,645,207
Ivanhoe Public Library	15964 Heather, Ivanhoe	Earthquake, Dam Flood, Fog	\$1,049,589
Lindsay Library	157 N Mirage St, Lindsay	Earthquake, Fog	\$650,760
London Library	5711 Ave 378, Dinuba	Earthquake, Dam Flood, Fog	\$398,080
Pixley Library	300 N School, Pixley	Earthquake, Fog	\$407,840
Public Library	200 W Oak Ave, Visalia	Earthquake, 100-Year Floodplain, Dam Flood, Fog	\$15,922,727
Springville Library	3500 Hwy 190, Springville	Earthquake, Freezing, Wildfire	\$253,840
Strathmore Library	19646 Rd 230, Strathmore	Earthquake, 100-Year Floodplain, Fog	\$1,591,369
Terra Bella Library	23650 Ave 95, Terra Bella	Earthquake, Fog	\$264,640
Three Rivers Library	42052 Eggers Dr, Three Rivers	Earthquake, Freezing, Wildfire	\$484,480
Tipton Branch	221 N Evans Rd, Tipton	Earthquake, Fog, Dam Flood	\$1,482,500
Tulare County Public Library - Dinuba Branch	150 S I St, Dinuba	Earthquake, 100-Year Floodplain, Fog	\$4,057,144
Tulare Public Library	12646 Ave 416, Tulare	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Freezing	\$890,433
Tulare Public Library	301 E Woods, Tipton	Earthquake, Fog, Dam Flood	\$1,482,500
Woodlake Library	400 W Whitney, Woodlake	Earthquake, Dam Flood, Fog	\$299,920
Total			\$33,318,849

Table 4-4: County Sheriff's Office			
Facility	Address	Associated Hazards	Replacement Cost
Bob Wiley Detention Facility	36712 Rd 112, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$46,312,646
Men's Correctional Facility	36168 Rd 112, Visalia	Earthquake, Dam Flood, Fog	\$10,738,068
Personnel & Training	5959 S Mooney Blvd, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$6,293,329
Portable Equipment	2404 W Burrel Ave, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$415,000
Porterville Courthouse	379 N 3rd St, Porterville	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Freezing	\$5,032,346
Pre-Trial Facility	36650 Rd 112, Visalia	Earthquake, Dam Flood, Fog	\$47,123,261
Scotsman Modular Building	36000 Rd 112, Visalia	Earthquake, Dam Flood, Fog	\$69,719

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Table 4-4: County Sheriff's Office			
Facility	Address	Associated Hazards	Replacement Cost
Sequoia Complex	36000 Rd 112, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$3,438,306
Sequoia Complex Building L	36000 Rd 112, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$12,392,400
South County Detention Facility	1960 W Scranton Ave, Porterville	Earthquake, Dam Flood, Fog	\$52,442,000
Tulare County Detective's Annex/Porterville Substation	378 2nd St, Porterville	Earthquake, Dam Flood, Fog	\$688,342
Tulare County Jail	2404 W Burrel Ave, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$23,924,607
Tulare County Substation and Community Center	161 N Pine St, Pixley	Earthquake, Fog, Dam Flood	\$1,369,579
William Silveira J. Juvenile Justice Center	11120 Ave 368, Visalia	Earthquake, Dam Flood, Fog	\$90,016,829
Totals			\$300,256,432

Table 4-5: County Parks			
Facility	Address	Associated Hazards	Replacement Cost
Alpaugh Park	NWC Park & Tule Ln, Alpaugh	Earthquake, Fog	\$58,271
Balch Park	48200 Bear Creek Dr, Springville	Earthquake, Freezing, Severe Winter Storm, Wind, Wildfire	\$192,447
Bartlett Park	28801 Worth Dr, Porterville	Earthquake, Dam Flood, Wildfire	\$368,542
Cutler Park	15520 Ivanhoe Dr, Visalia	Earthquake, 100-Year Floodplain, Dam Flood, Fog	\$995,544
Cutler/Orosi Senior Center	12691 Ave 408, Cutler	Earthquake, Fog, Dam Flood	\$391,475
Earlimart Neighborhood Park	Earlimart	Earthquake, Fog	\$2,100,000
Elk Bayou Regional Park	19701 Hosfield Dr, Tulare	Earthquake, 500-Year Floodplain, Dam Flood, Fog	Unknown
Kings River Nature Preserve	2 miles E of Highway 99 On Road 28, Sanger	Earthquake, 100-Year Floodplain, Dam Flood, Fog, Wildfire	Unknown
Ledbetter Park	12691 Ave 408, Cutler	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Freezing	\$444,398
Mooney Grove Park/Tulare County Museum	27000 S Mooney Grove Blvd, Visalia	Earthquake, 500-Year Floodplain, Fog, Dam Flood	\$21,376,127
Pixley Park	850 N Park Dr, Pixley	Earthquake, 100-Year Floodplain, Fog	\$647,329
Woodville Park, Tulare	16482 Ave 168, Tulare	Earthquake, Dam Flood, Fog	\$119,780
Woodville Park, Visalia	2 Blocks W of County Courthouse on Main St, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	Unknown
Total			\$26,693,913

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Table 4-6: Other Facilities			
Facility	Address	Associated Hazards	Replacement Cost
AG Commissioner Bldg.	4437 S Laspina St, Tulare	Earthquake, Dam Flood, Fog	\$5,281,351
AG Weights & Measures Storage	14173 Ave 256, Visalia	Earthquake, Dam Flood, Fog	\$65,493
Agricultural Vertebrate Pest Control	14173 Ave 256, Visalia	Earthquake, Dam Flood, Fog	\$501,463
Animal Control and Adoption Center	14131 Ave 256, Visalia	Earthquake, Dam Flood, Fog	\$752,813
Blue Ridge Repeater Site	36-17-13.2N, 118-50-18.3W	Drought, Freeze, Winter Storms, Wildfire	\$295,090
Cable TV Support, Bldg. 342	11871 Ave 272, Visalia	Earthquake, Dam Flood, Fog	\$281,787
Case Mountain Solar/Repeater Site	36-24-40.3N, 118-48-11.8W	Drought, Freeze, Winter Storms, Wildfire	\$141,597
Christian Faith Fellowship	506 N Court St, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	Unknown
COC-Office Improvement Project	5300 W Tulare Ave, Visalia	Earthquake, Dam Flood, Fog	\$3,000,000
Community of Christ Church	2127 S Giddings, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	Unknown
Computer Equipment	221 S Mooney Blvd, Visalia	Earthquake, Dam Flood, Fog	\$1,399,462
Consolidated Ambulance Dispatch (TCCAD)	125 N N St, Tulare	Earthquake, Dam Flood, Fog	Unknown
Delft Colony Sewage	39796 Rd 56, Dinuba	Earthquake, Fog	\$163,757
Delft Colony Sewage Treatment	39683 Rd 57, Dinuba	Earthquake, Fog	\$174,571
Department of Public Social Services	100 E Center St, Visalia	Earthquake, Dam Flood, Fog	\$2,652,250
Dinuba Courthouse	640 S Alta Ave, Dinuba	Earthquake, 100-Year Floodplain, Fog, Freezing	Unknown
Drug Abuse/Detox Center	559 E Bardsley, Tulare	Earthquake, Dam Flood, Fog	\$1,425,582
East Porterville Emergency Water Supply	21890 Olive Ave, Porterville	Earthquake, Dam Flood, Fog	\$419,580
East Porterville Water Supply Project	21890 Olive Ave, Porterville	Earthquake, Dam Flood, Fog	\$420,000
Eckert Field Airport	23500 Ave 204, Strathmore	Earthquake, Fog	Unknown
El Rancho Lift Station	37250 E Fir, Lindsay	Earthquake, Fog	\$37,873
Gateway Church of Visalia	1100 S Sowell, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	Unknown
Health & Human Services	458 O'Neal Dr, Tulare	Earthquake, Dam Flood, Fog	\$3,348,835
HHSA Storage	1275 O St, Tulare	Earthquake, Dam Flood, Fog	\$86,139
Hillman Health Care Center complex	1062 S K St, Tulare	Earthquake, Dam Flood, Fog	\$18,032,712
Human Resources Training Center	2900 W Burrel, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$149,921
Jordan Peak Solar/Repeater Site	36-10-53.0N, 118-35-53.8W	Freezing, Severe Winter Storms, Wildfire	\$48,570
Lake Kaweah	25 miles E of Visalia On Highway 198	Earthquake, 100-Year Floodplain, Wildfire	Unknown

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Table 4-6: Other Facilities			
Facility	Address	Associated Hazards	Replacement Cost
Lake Success	36.06°N 118.92°W	Earthquake, 100-Year Floodplain	Unknown
Lewis Hill Repeater Site	36-06-25.4N, 119-01-48.4W	Drought, Freeze, Winter Storms, Wildfire	\$483,874
Lindsay First Assembly of God	360 E Hermosa St, Lindsay	Earthquake, Fog	Unknown
Mini Computers	221 S Mooney Blvd, Visalia	Earthquake, Dam Flood, Fog	\$931,826
Monson Well Distribution	Ave 388 & Campbell Ave, Monson	Earthquake, Dam Flood, Fog	\$2,000,000
Motor Pool Services Bays and Office	149 W Sunset, Visalia	Earthquake, Dam Flood, Fog	\$558,509
Oat Mountain Solar/Repeater Site	36-00-02.1N, 118-47-59.1W	Earthquake, Dam Flood, Fog	\$220,914
Porterville Courthouse	87 E Morton Ave, Porterville	Earthquake, Dam Flood, Fog	Unknown
Road Yard #2	14097 Ave 256, Visalia	Earthquake, Dam Flood, Fog	\$1,224,373
Sequoia Field Airport Sequoia Field Hanger	County Rd 112 & Ave 360, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$5,149,446
Sequoia Ranch Airport	36788 CA 190, Springville	Earthquake, Freezing, Severe Winter Storm, Wildfire	Unknown
Seville Sewage Treatment	39332 Rd 154, Visalia	Earthquake, Dam Flood, Fog	\$37,873
Sherman Peak Solar/Repeater Site	36-00-36.8N, 118-23-28.3W	Drought, Freeze, Severe Winter Storms, Wildfire	\$31,830
Single Family Residence & Attached Garage Shop, Barn	Ave 200 & Rd 152	Earthquake, Fog	\$177,655
Springville Veterans Memorial Building	35978 Hwy 190, Springville	Earthquake, Freezing, Wildfire	Unknown
Stokes Mountain Repeater Site	36-30-55.5N, 119-12-41.3W	Drought, Freeze, Winter Storms, Wildfire	\$393,701
Superior Community School	1105 S O St, Tulare	Earthquake, Dam Flood, Fog	\$1,122,064
TB Water Management	9832 Rd 238, Terra Bella	Earthquake, Fog	\$174,571
Tobias Peak Solar/Repeater Site	35-50-59.8N, 118-34-03.3W	Drought, Freeze, Winter Storms, Wildfire	\$47,055
Tonyville Lift Station	21607 Ave 252, Lindsay	Earthquake, Fog	\$37,873
Tooleville Sewage Treatment	225 Morgan Ave, Exeter	Earthquake, Fog	\$174,571
Traver Sewage Treatment	36550 Rd 44, Kingsburg	Earthquake, Dam Flood, Fog	\$174,571
Tulare County Courthouse and Office Building	221 S Mooney Blvd, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$67,663,452

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Table 4-6: Other Facilities			
Facility	Address	Associated Hazards	Replacement Cost
Tulare County DPSS/Health Building	900 N Sequoia Ave, Lindsay	Earthquake, Fog	\$3,352,531
Tulare County Education Building	2500 W Burrel Ave, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$6,109,569
Tulare County Education Building	2637 W Burrel Ave, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$6,293,329
Tulare County Government Office Building and computers/ telephone equipment	5961 S Mooney Blvd, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$50,294,098
Tulare County Literacy Center	417 N Locust St, Visalia	Earthquake, 100-Year Floodplain, Dam Flood,	\$267,613
Tulare County Morgue	1225 S O St, Tulare	Earthquake, 100-Year Floodplain, Dam Flood,	\$359,427
Tulare County Office Building	2800 W Burrel Ave, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$2,862,755
Tulare County Office Building	2900 W Burrel Ave, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$3,423,527
Tulare County Psychiatric Facility	2611 N Dinuba Blvd, Visalia	Earthquake, Dam Flood, Fog	\$5,885,955
Tulare Various Locations	Visalia	Earthquake, Dam Flood, Fog	\$809,636
Tulare Youth Center	848 N H St, Tulare	Earthquake, Dam Flood, Fog	
Tulare/Akers Professional Center	5300 W Tulare, Visalia	Earthquake, Dam Flood,	\$15,910,000
Tulare-Pixley Superior Court/Tulare Courthouse	425 E Kern Ave, Tulare	Earthquake, Dam Flood, Fog	\$5,234,629
Uhl Hill	35-51-41.8N, 118-42-28.3W	Earthquake, Fog	\$46,369
Uhl Hill Radio Relay	35-51-41.8N, 118-42-28.3W	Earthquake, Fog	\$218,924
Vacant Building	210 N Court St, Visalia	Earthquake, Fog, Dam Flood	\$4,139,632
Valley Christian Church	432 E Pleasant Ave, Tulare	Earthquake, Dam Flood, Fog	Unknown
Vehicles	2900 Burrel, Visalia	Earthquake, 500-Year Floodplain, Dam Flood, Fog	\$116,891,105
Veterans Memorial Building	1771 E Tulare Ave, Tulare	Earthquake, Dam Flood, Fog	Unknown
Wells Tract Sewage Treatment	729 E Naranjo Blvd, Woodlake	Earthquake, Dam Flood, Fog	\$37,873
Woodlake Christian Center	799 N Valencia Blvd, Woodlake	Earthquake, 100-Year Floodplain, Dam Flood, Fog	Unknown

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Table 4-6: Other Facilities			
Facility	Address	Associated Hazards	Replacement Cost
Yettem Sewage Treatment	38460 Rd 140, Cutler	Earthquake, Dam Flood, Fog	\$37,873
	1331 O St, Tulare	Earthquake, Dam Flood, Fog	\$162,111
TOTAL			\$341,632,256

4.7 Past Disasters

The County has experienced a number of disasters that have resulted in either a State or Federal disaster declaration. **Table 4-6** lists recent federal declarations. **Table 4-7** lists State and County declarations.

Table 4-7: Stafford Act Declarations and FMAG ³ for the County			
Declaration	Dates	Type	Assistance
California Severe Freeze (DR-1267)	December 20, 1998 to December 29, 1998	Severe Freezing	Disaster Unemployment Assistance (DUA)
California Severe Freeze (DR-1689)	January 11, 2007 to January 17, 2007	Severe Freezing	Disaster Unemployment Assistance
Public Health Emergency Federal/State	April 26, 2009 Federal April 28, 2009 State	Nation-wide H1N1 flu virus Influenza pandemic	Distribution of Strategic National Stockpile of medicinals
California Winter Storms, Flooding, and Debris and Mud Flows (DR-1952)	December 17, 2010 to January 4, 2011	Severe storms and flooding	Public Assistance (PA)
Cedar Fire (FMAG 5150)	August 19, 2016 to September 8, 2016	Fire	Fire Management Assistance Grant Program (FMAGP)
Severe Winter Storms, Flooding, and Mudslides (DR 4308)	April 01, 2017	Flood	Public Assistance (PA) Tule River Indian Tribe only
King Incident	April 4, 2017 to August 8, 2017	Flood	US SBA Economic Injury Disaster Declaration
Animal Mortality	June 30, 2017 to July 11, 2017	Public Health	Waiver of state regulations
Pier Fire (FMAG 5205)	August 29, 2017 to October 17, 2017	Fire	Fire Management Assistance Grant Program (FMAGP)

County Disaster Proclamation History

The planning team reviewed historical information and more recent past events to identify hazards where an emergency or disaster was proclaimed within the County. **Table 4-8** lists the County's proclamation history for emergencies or disasters:

³ Fire Management Assistance Grant

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Table 4-8: State and County Emergency or Disaster Proclamations		
Date	Resolution Number	Emergency/Disaster Type
February 4, 2014	2014-0090	Drought
October 6, 2015	2015-0850	Tree Mortality
August 19, 2016	2016-0711	Fire
April 4, 2017	2017-0213	Flood
June 30, 2017	2017-0529	Severe Heat
August 29, 2017	2017-0722	Fire

5. Hazard Identification, Analysis, Assessment

A hazard analysis consists of identifying, screening and profiling each hazard. The hazard analysis encompasses natural, human-caused and technological hazards. Natural hazards result from unexpected or uncontrollable natural events of significant size and destructive power. Human-caused hazards result from human activity and encompass technological hazards. Technological hazards are generally accidental or result from events with unintended consequences (for example, an accidental release of hazardous materials). Local mitigation planning requirements specify that this hazard analysis consist of the following two steps:

- Hazard characterization and profiles
- Risk assessment

FEMA REGULATION CHECKLIST: RISK ASSESSMENT

Hazard Identification

44 CFR § 201.6(c)(2)(i): The risk assessment shall include a description of the type of all natural hazards that can affect the jurisdiction.

Elements

B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect the jurisdiction? Requirement § 201.6(c)(2)(i).

B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for the jurisdiction? See 44 CFR § 201.6(c)(2)(i).

B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? Requirement § 201.6(c)(2)(ii).

B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? Requirement § 201.6(c)(2)(ii).

Source: FEMA, *Local Mitigation Planning Handbook Review Tool*, March 2013.

5.1 Hazard Identification

The requirements for hazard identification, as stipulated in DMA 2000 and its implementing regulations, are described below.

As the first step in the hazard analysis, the Planning Committee conducted the hazard identification and screening process by reviewing the list of potential hazards and applying the following questions to each listed hazard:

- Is the hazard included in the State of California Hazard Mitigation Plan?
- Has the hazard occurred in the County and been declared a Presidential or State emergency or disaster in the past 30 years?
- Is the hazard included in the 2011 County MJLHMP?
- Is the hazard included in the 2030 General Plan Update for the County?

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Hazard Selection

A list of all hazards that have the potential to occur in the County was presented to stakeholders in planning team meeting number two on November 29, 2016, and to the general public through a survey. The list of hazards was derived from the General Plan, the 2014 Emergency Operations Plan, the 2011 County Multi-Hazard Mitigation Plan, and the California State Hazard Mitigation Plan. Considering the results of the public survey and recommendations from the stakeholders, the planning team decided to include technological and human-caused hazards in the MJLHMP to thoroughly represent the total risks to the County.

The County and its jurisdictions have seen significant changes from climate change and drought; these two hazards have been included in this update. Avalanche, which was listed as a hazard in the 2011 HMP, was removed as a hazard since almost all avalanche activity occurs on Federally-owned land.

The 2017 MJLHMP lists 16 hazards that affect the planning area based on historical information, the presence of the hazard, and the likelihood of future occurrences of the hazard. The hazard profiles contained below serve as the basis of the hazard assessment. **Table 5-2** provides a correlation of the selected hazards to the jurisdictions in the OA including the Tule River Tribe.

Hazard	Tulare County	City of Dinuba	City of Exeter	City of Farmersville	City of Lindsay	City of Porterville	City of Tulare	City of Visalia	City of Woodlake	Tulare County Office of Education	Tule River Tribe
Civil disturbance	X	X	X	X	X	X	X	X	X	X	X
Climate change	X	X	X	X	X	X	X	X	X	X	X
Drought	X	X	X	X	X	X	X	X	X	X	X
Earthquake	X	X	X	X	X	X	X	X	X	X	X
Energy emergency	X	X	X	X	X	X	X	X	X	X	X
Extreme Heat	X	X	X	X	X	X	X	X	X	X	X
Flood ¹	X	X	X	X	X	X	X	X	X	X	X
Fog	X	X	X	X	X	X	X	X	X	X	X
Hazardous materials	X	X	X	X	X	X	X	X	X	X	X
Heat	X	X	X	X	X	X	X	X	X	X	X
Landslide/Mudslide/Debris Flow	X										
Severe winter storm	X	X								X	X
Terrorism/WMD ²	X	X	X	X	X	X	X	X	X	X	X
Wildfire	X					X			X	X	X

(1) Includes riverine, shallow and localized flooding; dam failure and levee failure

(2) Weapons of mass destruction

5.2 Hazard Profiles: Characterization and Description

The requirements for hazard profiles is stipulated in DMA 2000 and its implementing regulations. The hazards that the Planning Committee selected for the 2017 MJLHMP have been profiled using existing available information. The hazard profiles consist of describing the nature of each hazard, the disaster history of each hazard, locations susceptible to each hazard, the possible extent of each hazard, climate change impacts and the probability of future events for each hazard.

5.2.1 Civil Disturbances

Nature: Civil disorder is an incident resulting from groups of people who seek to disrupt community affairs and threaten public safety. It is normally characterized by blocking access to public facilities, looting, arson and violently confronting law enforcement officials. Civil disorder may occur when individuals or groups within the general population feel they are being discriminated against or that their rights and safety are not being protected. Triggers include perceived social injustice, unpopular political decisions, loss of essential services or supplies, and bad weather. Crowds attending sporting events have been motivated to cause civil disturbances both during and after events. Civil disturbance spans a variety of actions including strikes, demonstrations, riots, and rebellion. Civil disturbance can be broken down into the following three categories:

- Peaceful, non-obstructive demonstrations
- Non-violent, disruptive demonstrations
- Violent, disruptive demonstrations

In general, a low-severity disturbance, such as a strike, will not cause much concern and will involve little-to-no involvement from law enforcement. A moderately severe civil disturbance, such as a protest that disrupts nearby businesses and possibly causes property damage, will require law enforcement intervention to restore order, but without employing crowd control agents or physical force. A severe civil disturbance, such as rioting, arson, looting, and assault, will require aggressive police action (crowd control techniques, curfews, and mass arrests).

History: In the 1930s and the 1970s, agricultural workers held a number of strikes in the Central Valley. More recently, local immigrant advocacy groups organized demonstrations in Farmersville to protest immigration issues. However, extremely violent or highly disruptive demonstrations have not been recorded in the County.

Location: Civil disturbances are potentially likely to occur in the County in three locations:

- Urban areas (such as the cities of Porterville, Tulare and Visalia)
- Farmland (located in both the valley and foothill portions of the County)
- Large government facilities or businesses (such as the County Civic Center and Government Plaza located in Visalia or the County's major food processing facilities)

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Extent: Because of the wide variety of potential civil disturbances, the extent of such an event can range broadly. The impact could be as simple as a picket line outside of a food processing facility or damage caused by thrown objects, fires and looting.

Regulatory Environment: Civil disturbance is governed by State laws that address private property trespass, assembly without a permit and impeding traffic. Generally, protests that are carried out peacefully on public lands are protected by the First Amendment. Protests on private property may result in expulsion by the property owner and arrest if continued. Protesters do not have the right to destroy private or public property and may be sued for damages due to lost revenue if they protest on private property and disrupt normal business activity.

Probability of Future Events: The low population density in the County results in a low potential of an episode of civil disturbance. The types of “spill-over” violence and destruction associated with large cities are less likely to occur in a smaller city, due to the noncontiguous nature of suburban development patterns. Based on previous occurrences, it is improbable a civil disturbance will occur in the County within the next 10 years (a 1 in 10 years’ chance of occurring - $1/10 = 10\%$). The history of events is less than or equal to 10% likely per year and while a civil disturbance event is possible, it is not likely.

5.2.2 Climate Change (Vulnerability Assessment)

Nature: The U.S. Environmental Protection Agency (EPA) describes climate change as “any significant change in the measures of climate lasting for an extended period of time. In other words, climate change includes major changes in temperature, precipitation, or wind patterns, among other effects, that occur over several decades or longer.”

Many people confuse climate change with global warming, the recent and ongoing rise in global average temperatures near Earth’s surface. However, global warming represents only one aspect of climate change. The Earth’s average temperature has risen by 1.4°F over the past century and is projected to rise another 2 to 11.5°F over the next hundred years. Rising global temperatures have been accompanied by changes in weather and climate. Many places have seen changes in rainfall resulting in more floods, droughts, or intense rain, as well as more frequent and severe heat waves. The planet’s oceans and glaciers have also experienced changes - oceans are warming and becoming more acidic, ice caps are melting and sea levels are rising. The effects of these indicators include:

- **Greenhouse Gases:** Human activities have increased the emissions of greenhouse gases. As a result of the increase in emissions, average concentrations of heat-trapping gases in the atmosphere are also increasing
- **Weather and Climate:** Average U.S. and global temperatures are increasing, while attributes of weather and climate, such as precipitation, drought and tropical cyclone activity, are changing
- **Oceans:** Average oceanic temperatures are increasing. Sea levels are rising around the world due to thermal expansion and increases from ice melt, and waters are becoming more acidic
- **Snow and Ice:** Glaciers in the U.S. and around the world are generally shrinking, while snowfall and snow cover in the U.S. have decreased overall. The extent of the Arctic Sea ice is declining

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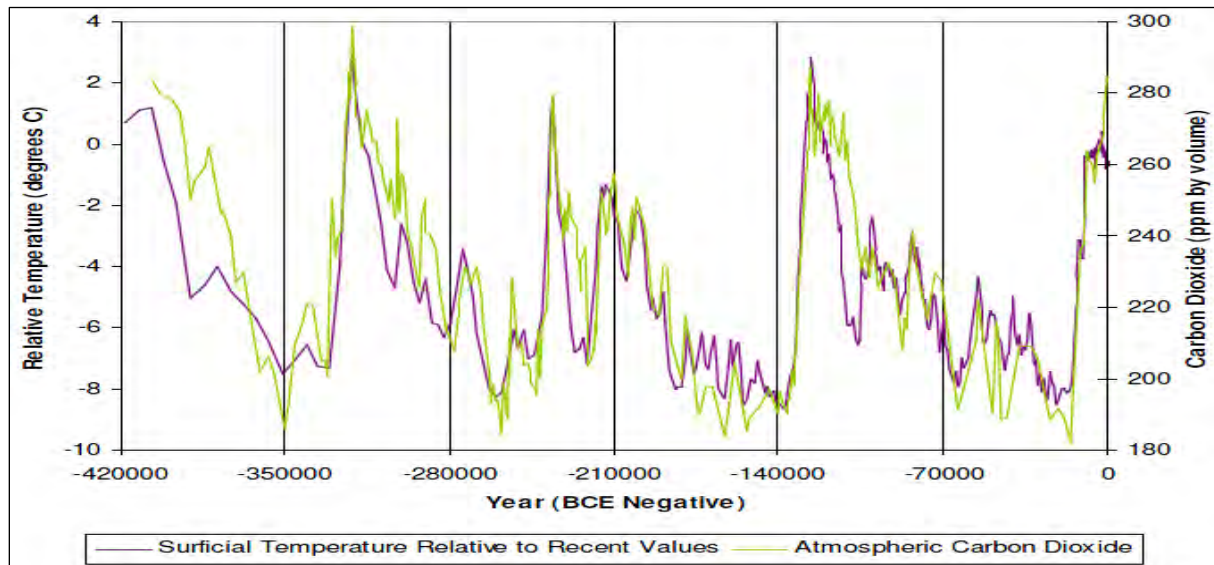
- **Subsidence:** As warmer temperatures and increasing drought require additional and prolonged pumping of ground water for agricultural irrigation, land over depleted aquifers subsides. The Central Valley has been sinking at differing rates since the 1920's and is estimated to have sunk up to 28 feet in some areas. During drought years, the Valley is prone to accelerated subsidence. While subsidence is listed as a Hazard in the State Mitigation Plan, it is included within climate change for the purposes of the MJLHMP.
- **Health and Society:** Warmer temperatures and later fall frosts allow ragweed plants to produce pollen later into the year, potentially prolonging allergy season. The length of ragweed pollen season has increased at 10 out of 11 locations studied in the central U.S. and Canada since 1995. The change becomes more pronounced from south to north
- **Ecosystems:** Many areas are experiencing earlier spring events, such as peak stream runoff and flower blooms. Bird migration patterns are changing, and wildfire zone size has increased

History: Climate change has occurred throughout the history of the planet. Due to variations in the earth's inclination to the sun, volcanic activity and other factors such as asteroid impacts, the amount of solar radiation reaching the earth's surface rises and falls. The temperature of the planet correlates to the amount of solar radiation arriving at the surface and with it the climate.

In relatively recent history, the last glacial period, popularly known as the Ice Age, occurred from c. 110,000 to 12,000 years ago. This most recent glacial period is part of a larger pattern of glacial and interglacial periods known as the Quaternary glaciation (c. 2,588,000 years ago to present). From this point of view, scientists consider this "ice age" to be merely the latest glaciation event in a much larger ice age, one that dates back over two million years and is still ongoing.

During this last glacial period, there were several changes between glacier advance and retreat. The Last Glacial Maximum, the maximum extent of glaciation within the last glacial period, was approximately 22,000 years ago. While the general pattern of global cooling and glacier advance was similar, local differences in the development of glacier advance and retreat make it difficult to compare the details from continent to continent. Generally, the pattern of temperature variation and glaciation has lagged atmospheric carbon dioxide (CO₂) content. **Figure 5-1** depicts global variations during the past 400,000 years as a correlation between temperature and atmospheric CO₂ content in part per million.

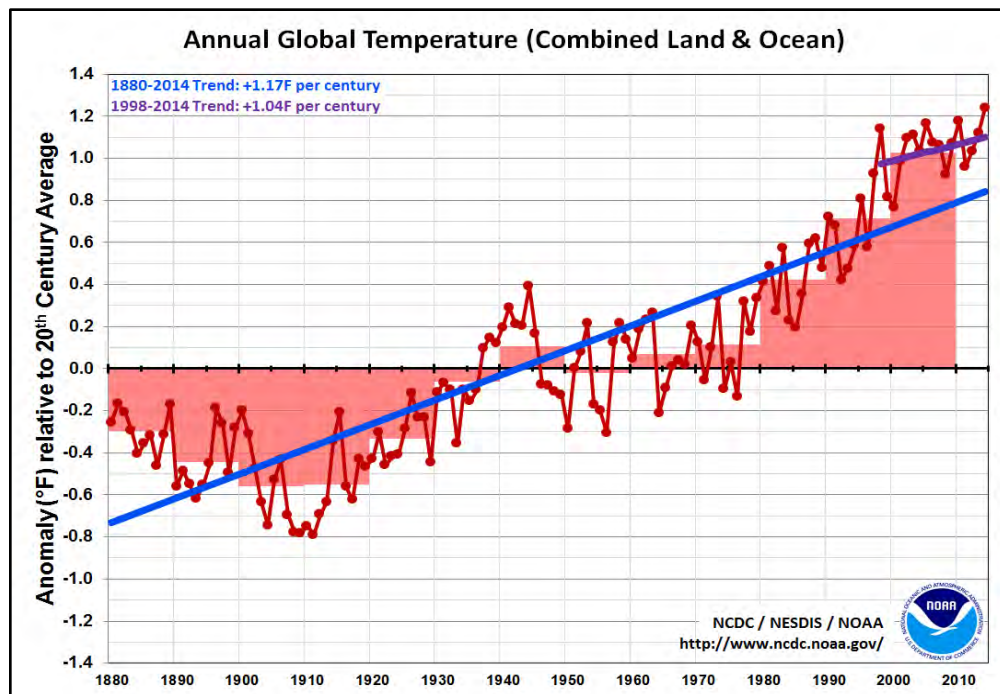
Figure 5-1: Temperature and Atmospheric CO2 Variation Past 400,000 Years



Source: Hogg, A.M., 2008, Glacial cycles and carbon dioxide: A conceptual model. Geophysical Research Letters, 35, L01701

Since 22,000 years ago, the planet has slowly warmed and the glaciers retreated to high northern latitudes and mountains. In the last several decades of this period, human activity has likely led to a rapid increase in atmospheric CO2 and a matching rise in global temperature. The result has been that climate change may be accelerating. **Figure 5-2** provides a graphical depiction of the recent history of temperature rise.

Figure 5-2: Temperature Rise Since 1880



Source: NOAA

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Location: Warming and climate change are occurring globally with wide variations based on location and latitude. The polar regions have experienced particularly rapid changes in climate with increased ice melt and more sea-ice free days.

Extent: Climate change is likely to affect the entire earth's population. More widespread drought and associated crop failure, movement of invasive species, more frequent wildfires, increased energy emergencies, and more intense climate events such as storms and extreme heat will occur throughout the County.

The California Adaptation Planning Guide (APG): Planning for Adaptive Communities identifies climate change impacts statewide as:

- Increases in the frequency, intensity and duration of extreme heat events and heat waves in California, which are likely to increase heat-related illness and the risk of mortality and morbidity for the elderly, individuals with chronic conditions such as heart and lung disease, diabetes, and mental illnesses, infants, the socially or economically disadvantaged and those who work outdoors.
- A decrease in water supplies to California users due to higher temperatures melting the Sierra snowpack earlier and driving the snowline higher, resulting in less snowpack.
- Intense rainfall events, periodically ones with larger than historical runoff, with more frequent and extensive flooding.
- More frequent and persistent droughts in the 21st century.
- Increased snowmelt producing higher winter runoff.

The APG: Understanding Regional Characteristics identifies regional impacts to include increased wildfire danger, reduced snow pack, higher temperatures and more heat waves, reduced water supply, and public health issues – both heat and air pollution. Cal-Adapt (www.Cal-Adapt.org) projects the following climate change effects for the County:

Table 5-3: Climate Change Projections	
Effect	Ranges
Temperature 1990 to 2100	January increase in average temperatures: 3°F to 4°F by 2050 and 7°F to 10°F by 2100. July increase in average temperatures: 5°F to 6°F in 2050 and 9°F to 11°F by 2100, with larger temperature increases in the mountainous regions to the east. (Modeled high temperatures; average of all models; high carbon emissions scenario)
Fire	The eastern edge of the region is projected to experience an increase in wildfire risk of four to six times current conditions. (GFDL ¹ model; high carbon emissions scenario)
Snow Pack	Snowpack in the eastern elevated regions is projected to decrease by approximately nine inches, resulting in pack that is less than four inches by March 2090. (CCSM3 climate model; high carbon emissions scenario)
Heat Wave	The threshold temperature that defines a heat wave is over 100°F in most of the region. In the mountains, a heat wave is defined by lower

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	temperatures, 70°F to 90°F. By 2050, the number annual heat wave is projected to increase by three to five. An increase of seven to ten heat waves is expected by 2100 in most of the region, with an increase of up to 14 expected in the mountain areas.
Rainfall	Low areas are projected to experience declines in annual precipitation of one or two inches by 2050 and up to 3.5 inches by 2100, while more elevated areas are projected to decline up to ten inches. (CCSM 3.0 ² ; high carbon emissions scenario)

Source: Public Interest Energy Research, 2011. Cal-Adapt (<http://cal-adapt.org>)

1 Geophysical Fluid Dynamics Laboratory

2 Community Climate System Model

Regulatory Environment: There is a large body of statute and regulations that address climate change. The State maintains a directory of climate change legislation at <http://www.climatechange.ca.gov/state/legislation.html>. Key State guidance includes:

- Executive Order B-30-15 established a California greenhouse gas reduction target of 40% below 1990 levels by 2030, also specifically addresses the need for climate adaptation and directs State government to factor climate change into state agencies' planning and investment decisions.
- Senate Bill 375 (Steinberg, Chapter 728, Statutes of 2008) Sustainable Communities & Climate Protection Act of 2008 requires the State Air Resources Board (ARB) to develop regional greenhouse gas emission reduction targets for passenger vehicles. ARB is to establish targets for 2020 and 2035 for each region covered by one of the State's 18 metropolitan planning organizations.
- Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006) California Global Warming Solutions Act of 2006. This bill requires the ARB to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020. ARB shall adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program. AB 32 directs the Climate Action Team established by the Governor to coordinate the efforts set forth under Executive Order S-3-05 to continue its role in coordinating overall climate policy.

Probability of Future Events: Climate change is an ongoing occurrence. Essentially, it has occurred, is occurring and will continue to occur for several decades, centuries or longer.

5.2.3 Dam Failure

Nature: A dam failure is the structural collapse of a dam that releases the water stored in the impounded reservoir. Dam failures usually result due to the age of the structure, inadequate spillway capacity used in construction, or structural damage caused by an earthquake or flood. When a dam fails, large quantities of water may be suddenly released with a great potential to cause human casualties, economic loss, and environmental damage. This type of disaster is especially dangerous because it can occur suddenly, providing little warning or evacuation time for the downstream communities. The flows resulting from dam failure generally are much larger than the capacity of the downstream channels and therefore lead to extensive flooding. Flood damage occurs as a result of the momentum of the flood caused by the sediment-laden water flooding over the channel banks and impact debris carried by the flow.

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History: There is no record of dam failure within the County.

Location: There are nine dams in the County. **Table 5-4** lists the name, owner, stream, year built, capacity, height, type, and regulatory authority of each dam. Seven dams are under regulatory authority of the California Division of Safety of Dams (DSOD). Two are owned and operated by the U.S. Army Corps of Engineers (USACE). The two dams with the largest capacities in the County are Success Dam and Terminus Dam, both of which are owned by the USACE. Based on location (distance from the populated areas), capacity and height, the other seven dams in the County do not pose a substantial risk to the County. Therefore, no mitigation actions are identified for them.

Two dams not within the County may release flows that can cause flooding in the County: Pine Flat Dam and Isabella Dam. Pine Flat Dam on Kings River is located in Fresno County, which is north of and adjacent to the County. Pine Flat Dam was completed in 1954 and is operated by USACE. The dam has a gross capacity of approximately 1 million acre-feet, and affects peak discharges for Kings River and Alta East Branch Canal, which receives flood flows from Kings River. Isabella Dam on the Kern River in Kern County consists of two dams, a "main dam", and an "auxiliary dam". The main dam is of earthen build, 1,695 feet long and 98 feet tall, and owned and maintained by USACE. The main reservoir, Lake Isabella, can hold up 570,000-acre feet of water.

Table 5-4: Dams in the County							
Name of Dam	Owner	Stream	Year Built	Design Capacity (acre- feet)	Height (feet)	Type	Jurisdiction
Bravo Lake Reservoir	Wutchumna Water Company	Wutchumna Ditch	1980	3,427	24	Earth	State
Crystal Lake	Southern California Edison Company	East Fork of Kaweah River	1903	162	16	Gravity	State
Elk Bayou	Kaweah Delta Water Conservation District	Elk Bayou	1903	60	16	Earth	State
Lady Franklin Lake	Southern California Edison Company	East Fork of Kaweah River	1905	467	21	Gravity	State
Larson	South Tule Independent Ditch Company	South Tributary of Tule River	1963	325	54	Earth	State
Sand Creek	County Resources Management Agency	Sand Creek	1980	1,050	60	Earth	County
Upper Monarch Lake	Southern California Edison Company	East Fork of Kaweah River	1905	314	22	Gravity	State
Success	USACE	Tule River	1961	82,300	156	Earth	Federal
Terminus	USACE	Kaweah River	1962	143,000	255	Earth	Federal

Source: California Division of Safety of Dams 2010.

USACE = U.S. Army Corps of Engineers

Extent: Figure B-6 (Appendix B, Hazard Figures) shows the Terminus Dam (on Lake Kaweah) and Success Dam (on Lake Success), can cause substantial flooding in the event of a failure. Individual jurisdiction dam inundation maps are provided in **Figures B-8, B-9, B-11, B-15, B-17, B-19 and B-22 (Appendix B, Hazard Figures)**

- The Terminus Dam regulates discharges on the Kaweah River, St. Johns River, Deep Creek, Mill Creek, and Packwood Creek, as well as the smaller elements through the Kaweah River tributary network. The dam has been operated for flood control by the USACE since 1962 and forms Lake Kaweah, which has a gross pool of 150,000 acre-feet, somewhat larger than design capacity. Lake Kaweah is approximately 30 miles east of Visalia and 20 miles west of the entrance to Sequoia National Park. If the Terminus Dam were to fail, the dam inundation area will extend to portions of Exeter, Farmersville, Ivanhoe, Goshen Tulare, Visalia, and Woodlake,
- The Success Dam affects the hydrology of the Lower Tule River, Porter Slough, and other small canals in the Tule River tributary network. The Success Dam reservoir has a gross storage of 85,400 acre-feet. If the Success Dam were to fail, the dam inundation areas will include the City of Porterville which could flood within as little as 20 minutes. Other potential inundation areas are the City of Visalia and approximately 450,000 acres of land downstream of the dam.

Probability of Future Events: Dam failure can result from numerous natural or human activities. Earthquakes, internal erosion, improper siting, structural and design flaws, or rising floodwaters can all result in the collapse or failure of a dam. A dam failure may also be a result of the age of the structure or inadequate spillway capacity. The probability of a future dam failure affecting the County is unknown. While possible, it is unlikely that a dam failure event will occur within the next ten years. Event history is less than or equal to 10% likelihood per year.

5.2.4 Drought

Nature: Drought is an extended period of years when a region is deficient in its water supply or consistently receives below average precipitation. Drought patterns in the West are related to large-scale climate patterns in the Pacific and Atlantic oceans, such as the El Niño–Southern Oscillation in the Pacific, and the Atlantic Multidecadal Oscillation in the Atlantic. As these large-scale ocean climate patterns vary in relation to each other, drought conditions in the U.S. shift from region to region. Drought produces a variety of impacts that span many sectors of the economy such as reduced crops, rangeland, and forest productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in reduced income for farmers and agribusiness, increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, migration and foreclosures on bank loans to farmers and businesses.

Drought is a lack of adequate water, whether atmospheric, surface or ground water. Drought occurs over a prolonged period of time; typically, more than one year or lasting several years. Drought impacts mostly

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the populations that rely on, or are affected by a lack of, water or annual rainfall. A drought negatively impacts forests and wildland fires, the economy of the agricultural industry, growth of feed and sufficient grazing for livestock, and rural residents that use wells or small water systems for their water source. The California Department of Water Resources (DWR) tracks water supply conditions across the State. Indicators include the annual snowpack, precipitation, runoff, and reservoir storage. There are ten major hydrologic regions in California. By tracking the indicators in the hydrologic regions, the DWR can continually monitor drought conditions and forecast potential drought or dry years in the 58 counties across the state.

In the County, drought impacts strongly affect the agriculture production. The County relies on sufficient irrigation water to support the extensively cultivated and fertile valley floor which has allowed the County to become the second-leading producer of agricultural commodities in the U.S. That lack of precipitation has had dire consequences with hundreds of thousands of acres of farmland fallowed, tens of thousands of farmworkers laid off, depressed local economies, an increase in prices paid for some farm products at the grocery store and an increase in diseases.

Location: When a drought occurs, the entire OA is affected. Recent drought conditions have persisted throughout the OA and California from 2012 through 2016, with lingering effects still being felt in some areas in 2017.

History: Historical drought data for the Southern San Joaquin Valley region indicate there have been four significant droughts in the last 79 years. This equates to a drought every 19.8 years on average, or a 5.1% chance of a drought in any given year. The most recent drought began in 2012 and lasted through 2016, ultimately being alleviated by near-record precipitation and snowpack during the winter of 2016-2017. Local and State emergency proclamations remain in effect as of mid-2017 as the abundant surface water has yet to percolate to many aquifers which historically take up to 2 years to begin to recharge. Over \$25 million was spent within Tulare OA between 2014 and 2017 on emergency response actions to address the public health and safety impacts of drought on local residents and communities, and over \$60 million was invested in resilient infrastructure solutions to mitigate against future drought impacts.

Previous periods droughts that have affected the Southern San Joaquin Valley include:

- 1976-77 - One of the most vivid historical examples of drought in California is the two-year dry period spanning 1976 and 1977. Precipitation during each of these calendar years, and during the 1976-1977 water year in particular, was extremely low. These were two consecutive years in which statewide precipitation was ranked among the top five lowest ever recorded in California.
- 1987-92 - The years 1987 to 1992 comprised the second driest period in California's recorded climate history. For six years, precipitation in the state was only about three-quarters of the recorded average, while streamflow was a mere one-half of the average.
- 2007-2009 - Saw three years of drought conditions, the 12th worst drought period in the state's history, and the first drought for which a statewide proclamation of emergency was issued. The drought of 2007-2009 also saw greatly reduced water diversions from the state water project. The summer of 2007 saw some of the worst wildfires in Southern California history

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Incidental to drought, a local and State proclamation of emergency for tree mortality remains in effect, as over 102 million dead trees are present within California, at least 8 million of which were estimated to be in Tulare County as of 2016. Tulare County is utilizing California Disaster Assistance Act funding to remove an estimated 36,625 dead or dying trees on non-Federal lands for an estimated \$36,625,000, while State agencies (including CAL FIRE and Cal Trans), Federal agencies (including the National Park Service and United States Forest Service), utility companies, Resource Conservation Districts, Fire Safe Councils, and others continue their own mitigation efforts to remove the hazardous vegetation within their respective jurisdictions / areas of operation.

Impact of Climate Change: Climate change is likely to increase the number and severity of future droughts. Climate change is having a profound impact on California water resources, as evidenced by changes in snowpack, sea level, and river flows.⁴ These changes are expected to continue and more precipitation will likely fall as rain instead of snow. This potential change in weather patterns will exacerbate flood risks and add additional challenges for water supply reliability.

The mountain snowpack provides as much as a third of California's water supply by accumulating snow during wet winters and releasing it slowly during the dry springs and summers, when need is the greatest. Warmer temperatures will cause snow to melt faster and earlier, making it more difficult to store and use. By the end of this century, the Sierra snowpack is projected to experience a 48-65% loss from the historical April 1st average. This loss of snowpack means less water will be available for Californians to use.

Climate change is also expected to result in more variable weather patterns throughout California. More variability can lead to longer and more severe droughts. In addition, the sea level rise will continue threatening the sustainability of the Sacramento-San Joaquin Delta, the heart of the California water supply system and the source of water for 25 million Californians and millions of acres of prime farmland.

Farmers throughout the State have seen a decrease in crop yield as a direct result of a spike in temperatures, a decrease in rainfall and inconsistent access to water since the beginning of the drought. Lack of water for irrigation has had a negative impact on farmers' operations at every level. During wet years, farmers irrigate their farms with water from various sources. Farmers, who have run out of water for irrigation and do not have the financial means to dig wells on their property or access water from other sources, have been forced to let their crops perish.

Extent:

Drought is classified by a variety of indices and categories. Figure 5-4 below depicts three that are widely used. It contains severity classification ranges for each indicator for each dryness level. Because the ranges of the various indicators often don't coincide, the final drought category tends to be based on what the majority of the indicators show and on local observations.

⁴ California Department of Water Resources; <http://www.water.ca.gov/climatechange/>

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Drought Severity	Return Period (years)	Description of Possible Impacts	Drought Monitoring Indices		
			Standardized Precipitation Index (SPI)	NDMC* Drought Category	Palmer Drought Index
Minor Drought	3 to 4	Going into drought; short-term dryness slowing growth of crops or pastures; fire risk above average. Coming out of drought; some lingering water deficits; pastures or crops not fully recovered.	-0.5 to -0.7	D0	-1.0 to -1.9
Moderate Drought	5 to 9	Some damage to crops or pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing or imminent, voluntary water use restrictions requested.	-0.8 to -1.2	D1	-2.0 to -2.9
Severe Drought	10 to 17	Crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed.	-1.3 to -1.5	D2	-3.0 to -3.9
Extreme Drought	18 to 43	Major crop and pasture losses; extreme fire danger; widespread water shortages or restrictions.	-1.6 to -1.9	D3	-4.0 to -4.9
Exceptional Drought	44 +	Exceptional and widespread crop and pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells creating water emergencies.	less than -2	D4	-5.0 or less

*NDMC - National Drought Mitigation Center

Figure 5-4: Drought Severity Classifications

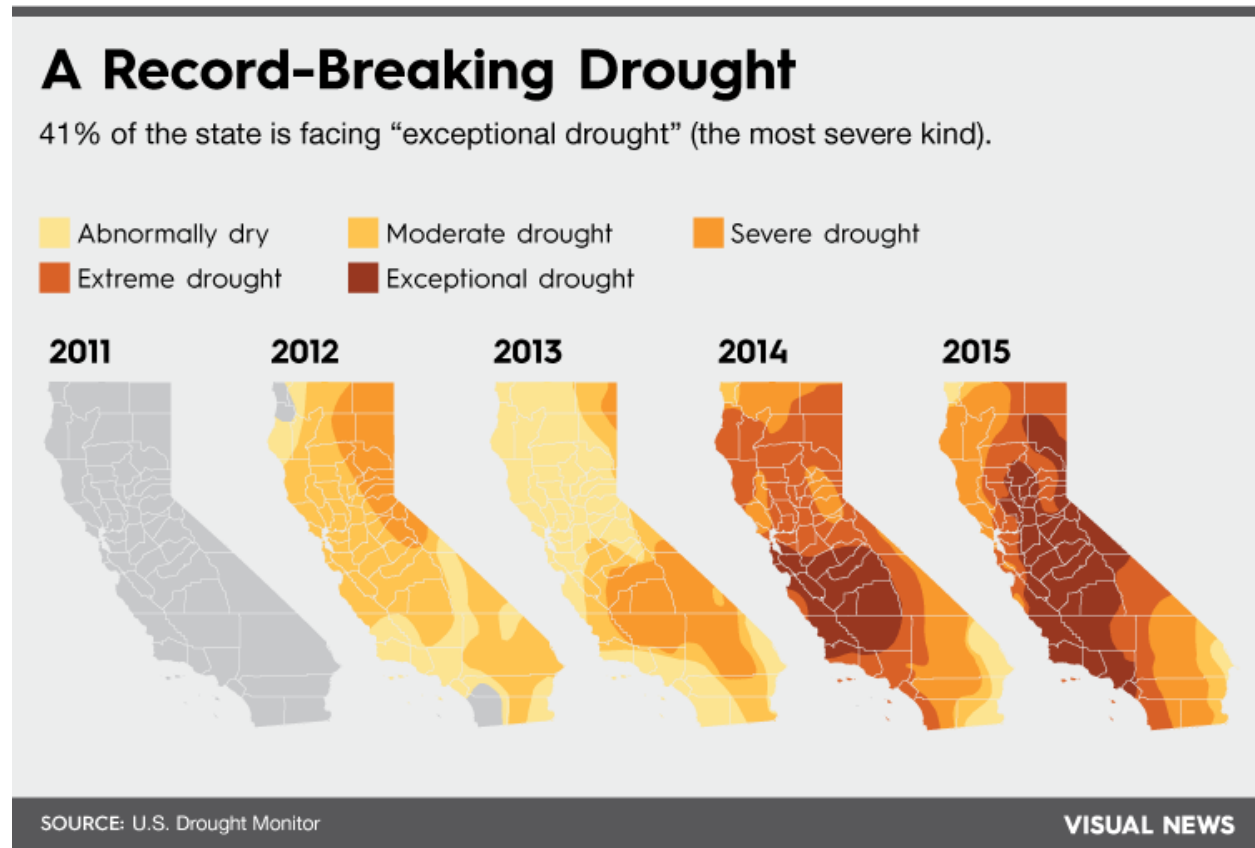
California recently experienced an unprecedented drought beginning in 2012. This is the longest drought in over a century. Reservoirs, groundwater basins, and ecosystems reached half-capacity or less, with some reservoirs reaching perilously close to dead pool levels. As a result of extremely dry conditions – 2014 was the State's third driest in 119 years of record based on statewide precipitation – wildfire risk was extremely high. At its peak, drought encompassed over 98% of the State of California, with more than 44% of California in "exceptional" drought — the worst level of drought.

On January 17, 2014 Governor Edmund G. Brown Jr. declared a drought state of emergency. The County Board of Supervisors proclaimed a local emergency on February 4, 2014. On July 15, 2014, the California State Water Resources Control Board approved an emergency regulation to ensure agencies and State residents increase water conservation allowing local agencies to ask courts to fine water users up to \$500 per day for failure to implement conservation requirements. Both local and state emergency proclamations remained in effect as of mid-2017. The County Board of Supervisors remains active in water policy matters, having called for State legislators to place a water bond on a future ballot and formed a Water Commission to address ongoing water issues and advocacy strategy.

In late July 2015, the U.S. Drought Monitor classified 58% of California in "exceptional" drought, the most severe on the U.S. Drought Monitor's five-point scale, and that percentage remained unchanged through September. More than 80% was in "extreme" drought (DWA). **Figure 5-3** displays draught conditions as

they increased for the most recent event. The Planning Team chose to use this set of maps to indicate the severity of the recent draught rather than a current map which does not show draught conditions in the County.

Figure 5-3: California Drought Monitor 2011 - 2015



Probability: An extreme multiyear drought could impact the region with little warning. Combinations of low precipitation and unusually high temperatures could occur over several consecutive years. Intensified by such conditions, extreme wildfires could break out throughout the County, increasing the need for water. Surrounding communities, also in drought conditions, could increase their demand for water supplies relied upon by the planning partnership, causing social and political conflicts. If such conditions persisted for several years, the economy of the County could experience declines, especially in water-intensive industries such as agriculture, the County’s main economic driver.

5.2.5 Earthquake

Nature: An earthquake is a sudden motion or trembling caused by a release of strain accumulated within or along the edge of the earth’s tectonic plates. The effects of an earthquake can be felt far beyond the site of its occurrence. Earthquakes usually occur without warning and can cause massive damage and extensive casualties in a few seconds. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure. Ground motion is the vibration or shaking of the ground during an earthquake. When a fault ruptures, seismic waves radiate, causing the ground to vibrate. The severity of the vibration

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increases with the amount of energy released and decreases with distance from the causative fault or epicenter. Soft soils can amplify ground motions.

The Richter scale is often used to rate the strength of an earthquake and is an indirect measure of seismic energy released. The scale is logarithmic, with each one-point increase corresponding to a ten-fold increase in the amplitude of the seismic shock waves generated by the earthquake. However, in actual energy released, each one-point increase on the Richter scale corresponds to about a 32-fold increase in energy released. Therefore, a moment magnitude (M) 7 earthquake is 100 times (10×10) more powerful than an M 5 earthquake and releases 1,024 times (32×32) the energy.

The Modified Mercalli Intensity (MMI) scale is another way of rating earthquakes. This method attempts to quantify the intensity of ground shaking. Intensity in this scale is a function of distance from the epicenter (the closer a site is to the epicenter, the greater the intensity at that site), ground acceleration, duration of ground shaking, and degree of structural damage. The MMI rates the level of severity of an earthquake by the amount of damage and the perceived shaking as shown in **Table 5-5**.

Table 5-5: Modified Mercalli Intensity Scale		
Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.

Table 5-5: Modified Mercalli Intensity Scale		
Intensity	Shaking	Description/Damage
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Source: USGS 2017

Earthquake faults are indications of past seismic activity. Those that have been active most recently are the most likely to be active in the future. According to the California Geological Survey Alquist-Priolo Earthquake Fault Zoning Act, an “active” fault is one that has ruptured in the last 11,000 years. Faults that are “potentially active” have been active within the last two million years and are referred to as being in the Quaternary Period. In addition, new faults are being identified with every new earthquake.

Location: Only one active fault runs through the County. While the County rarely feels the effects of even the largest earthquakes from the nearest major fault line, the San Andreas Fault, it is located within four principal fault zones with potential seismic activity. These faults are shown on the California Geological Survey’s Fault Activity Map of California, published in 2010. Descriptions of the principal faults are provided below. The locations of the active and potentially active faults are shown on **Figure B-3 (Appendix B, Hazard Figures)**.

San Andreas Fault: San Andreas is the longest and most significant fault zone in California. Because of considerable historic earthquake activity, this fault has been designated as active by the State. The large fault collectively accommodates the majority of relative north-south motion between the North American and Pacific plates. The San Andreas Fault is a strike-slip fault that is approximately 684 miles long and approximately 40 miles west of the County boundary. The zone originates at the triple divide off Fort Bragg in the north and terminates near the Salton Sea in the south. It is located within multiple

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metropolitan areas. Major earthquakes occurred on the San Andreas Fault in 1857 (Tejon Earthquake, M 7.9) and in 1906 (Great San Francisco Earthquake, M 7.8).

Owens Valley fault zone: The Owens Valley fault zone is located on the eastern base of the Sierra Nevada and is a complex system containing both active and potentially active faults. The right-lateral Owens Valley fault zone in eastern California extends north from Owens Lake to beyond Big Pine. It passes through Lone Pine near the eastern base of the Alabama Hills and follows the floor of Owens Valley northward to the Poverty Hills and continues northwest across Crater Mountain and through Big Pine. The zone is located within Tulare and Inyo Counties and has historically been the source of seismic activity within the County. The Owens Valley fault is the primary active fault within the zone and has a fault length of 107 kilometers (approximately 75 miles). The last major rupture was approximately M 7.4 and occurred in 1872.

Kern Canyon fault: The Kern Canyon fault runs along the length of Kern Canyon in the southern Sierra Nevada Mountains. A large portion of the fault runs through the eastern portion of the County. Although the 93-mile-long fault has been considered inactive since the 1930s, recent investigations reveal that the fault has ruptured within the past few thousand years. This discovery, paired with an abundance of low-magnitude earthquakes along the fault, indicates that the fault is active. The Kern Canyon fault is shown as an active fault on the California Geological Survey's 2010 Fault Activity Map of California.

Clovis fault: The Clovis fault generally runs north to south through Fresno County and through the City of Clovis. This fault is classified as a "potentially active" fault which was active within the last two million years. Although it is located in Fresno County, a strong earthquake on this fault could affect the northern portion of the County. Activity along this fault could potentially generate more seismic activity in the County than the San Andreas or Owens Valley faults. However, lack of historic activity along the fault makes it difficult to assess the maximum earthquake impacts.

History: The County has not experienced any earthquakes equal to or greater than M 5.5 in recent years. However, several historical earthquakes greater than M 5.5 have occurred within close vicinity of the County. The towns of Tehachapi and Arvin, in Kern County, were hit severely by the July M 7.3 1952 Kern County earthquake. Twelve persons died, many were injured, and \$60 million property damage was sustained. Damage to well-designed structures was slight, but old and poorly built buildings were cracked and many collapsed. Reinforced tunnels with walls 18 inches thick near Bealville were cracked, twisted, and caved in; rails were shifted and bent into S-shaped curves. Near Caliente, reinforced concrete railroad tunnels were demolished. Many aftershocks occurred, three over 6 on the Richter scale. One aftershock on August 22 (magnitude 5.8) centered near Bakersfield. It took two lives and caused extensive damage to many already weakened buildings. The Kern County earthquake, the largest with an epicenter in California since 1906, originated on the White Wolf Fault.

Table 5-6 indicates the date, magnitude, and location of historical earthquakes near the County between 1956 and 2016. Shaking would have been felt by those in the County, but no major or structural damage occurred. **Table 5-6** shows historical earthquakes with a magnitude of 5.0 or greater that have occurred in the County and the surrounding region from 1871 to 2016.

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Table 5-6: Historical Earthquakes of M5.5 or Greater Near the County, 1956–2016		
Date	Magnitude	Location
July 11, 1992	5.7	Eastern Kern County
September 20, 1995	5.6	Ridgecrest–China Lake

Table 5-7: Historical Earthquakes in the County		
Date	Magnitude	Location
May 29, 1915	5.0	Porterville
June 30, 1926	5.7	South Central County

Source: California Geological Study 2016.

Extent: The strength of an earthquake’s ground movement can be measured by peak ground acceleration (PGA). PGA measures the rate in change of motion relative to the established rate of acceleration due to gravity (g) (g = 980 centimeters (32.152 feet) per second, per second). PGA is used to project the risk of damage from future earthquakes by showing earthquake ground motions that have a specified probability (e.g., 10%, 5%, or 2%) of being exceeded in 50 years. The ground motion values are used for reference in construction design for earthquake resistance and can also be used to assess the relative hazard between sites when making economic and safety decisions.

In 2009, the U.S. Geological Survey (USGS) updated the 2002 National Seismic Hazard Maps displaying earthquake ground motions for various probability levels across the U.S. The updated maps incorporate new findings on earthquake ground shaking, faults, and seismicity and are currently applied in seismic provisions of building codes, insurance rate structures, risk assessments, and other public policy. PGA data from these maps have been used to determine the areas within the County that are at risk for earthquake hazards. **Figure B-3** shows the PGA values in the County for the 2% probability of exceedance in 50 years. Moderate-earthquake hazard areas are defined as ground accelerations of 0.65g, 0.75g, and 0.85g, and high-earthquake hazard areas are defined as ground accelerations of 0.95g and 1.05g.

The County falls within the low to moderate ranges of the scale. Regions at the upper end of the scale are often near major active faults. These regions will, on average, experience stronger earthquake shaking more frequently, with intense shaking that can damage even strong, modern buildings. Thus, based on historical activity and the PGA values shown on **Figure B-3**, all areas in the County are likely to experience low to moderate shaking from earthquakes, and may experience higher levels if an earthquake were to occur in or near the County.

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Liquefaction

Ground settlement and soil compaction may occur as a result of seismic ground shaking. When unconsolidated valley sediments are saturated with water, water is forced to the ground surface, where it emerges in the form of mud spouts or sand boils. If soil liquefies in this manner (known as liquefaction), it loses its supporting capacity, which can result in the minor displacement to total collapse of structures. These types of unconsolidated sediments represent the poorest kind of soil condition for resisting seismic shock waves. No specific County-wide assessments to identify liquefaction hazards have been performed. Areas where groundwater is less than 30 feet below the surface occur primarily in the San Joaquin Valley portion of the County. However, soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. Areas subject to 0.3g acceleration or greater are located in a small section of the Sierra Nevada Mountains along the Tulare-Inyo County boundary. However, the depth to groundwater in such areas is greater than in the valley, which would minimize liquefaction potential as well. Detailed geotechnical engineering investigations would be necessary to more accurately evaluate liquefaction potential in specific areas and to identify and map the extent of locations subject to liquefaction. A liquefaction analysis is conducted as part of all bridge and bridge replacement projects.

Regulatory Environment

Numerous building and zoning codes exist at the State and local level to decrease the impact of an earthquake event on residents and infrastructure. Building and zoning codes include the Alquist-Priolo Earthquake Fault Zoning Act of 1972, Seismic Hazards Mapping Act of 1990, 2013 California Building Standards Code (CBSC), as well as relevant jurisdictional codes and general plans. To protect lives and infrastructure in the County, the building division of each jurisdiction ensures codes regarding hazards are met.

The 1971 San Fernando Earthquake resulted in the destruction of numerous structures built across its path. This led to passage of the Alquist-Priolo Earthquake Fault Zoning Act. This Act prohibits the construction of buildings for human occupancy across active faults in the State of California. Similarly, extensive damage caused by ground failures during the 1989 Loma Prieta Earthquake focused attention on decreasing the impacts of landslides and liquefaction. This led to the creation of the Seismic Hazards Mapping Act. This Act increases construction standards at locations where ground failures are probable during earthquakes. Active faults in the County's jurisdictions have been included under the Alquist-Priolo Geologic Hazards Zones Act and Seismic Hazards Mapping Act.

The 2013 CBSC is based on the International Building Codes which are widely used throughout the U.S. CBSC was modified for California's conditions to include more detailed and stringent building requirements. The County and its jurisdictions utilize the 2010 CBSC to regulate infrastructure. This includes unreinforced masonry buildings. For new buildings, the County's jurisdictions include earthquake safety provisions, with enhancements for essential services buildings, hospitals, and public schools.

Probability of Future Events: The USGS has stated that the probability of a M 6.7 earthquake in California within the next 30 years exceeds 99% while the likelihood of an earthquake with a greater than M 7.5 is calculated to be 46%. The fault rupture characteristics such as length, depth and epicentral location cannot be accurately predicted. Ongoing field and laboratory studies suggest the following maximum, likely magnitudes and recurrence intervals for the major faults near the County:

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- San Andreas Fault: M 6.8-8.0, recurrence interval varies from under 20 years to over 300 years
- Owens Valley fault zone: M 6.5-8.2, recurrence interval likely between 2,000 to 3,000 years
- Kern Canyon fault: M 6.0-7.0, recurrence interval unknown
- Clovis fault: Magnitude and recurrence interval unknown

5.2.6 Energy Emergency

Nature: When energy resources availability disrupts the course of day-to-day business and the lives of the citizens of the County, the situation results in an energy emergency. The California Energy Commission defines an energy emergency as an actual or potential loss of energy supply that significantly impacts the State. “Energy resources” includes not only electricity but also natural gas and automotive fuels. In the case of the County, an energy emergency is a loss of supply that significantly impacts the County. An energy emergency can be caused by aging infrastructure, human factors (such as accidents or negligence), natural disasters (such as severe storm, earthquake, fire, or flood) or geopolitical events (such as war, terrorism, civil disturbance, or embargo). Since each energy emergency is unique, it is impossible to envision every potential event or combination of events that might contribute to, or result in, an energy emergency.

Energy emergencies may develop with no notice due to equipment failure or disaster such as a severe storm or an earthquake. They may also develop over the long-term due to economic or environmental factors such as the California Energy Emergency of 2001, which was caused by a complex series of events and include legislation that resulted in deregulation of the electric utility industry in California.

Electric power emergencies pose immediate and widespread risks. In addition to the interruption of basic services such as pumping water, treating waste, sustaining critical home and institutional medical equipment, supporting commerce and managing traffic flow, power emergencies put large segments of the community at risk, particularly the very old and young, and those requiring special access and functional needs support. Each of these impacts was observed in a local incident on August 19, 2014, in which a monsoonal storm system lightning strike caused a widespread power outage over much of the OA, with late evening conditions in excess of 100°F and 50% humidity. As many systems do not have backup power generation, and many of those with such capacity employed heat exchangers which were ineffective given the conditions, numerous life safety, infrastructure, traffic, and economic issues arose within the initial hours as residents, businesses, healthcare facilities, and infrastructure operators within the OA attempted to cope with conditions.

A natural gas-related incident during a cold period in early 2017, with overnight lows in the 20’s and daytime temperatures in the upper 40’s / low 50’s, was caused by third party negligence while excavating in the area of a regional high-pressure natural gas transmission line. This incident threatened to disrupt residential and commercial heating, transit (which operates natural-gas powered vehicles), manufacturing, agricultural operations (such as water production from natural-gas powered wells to protect crops from freezing), and co-generated electricity production (such as at area hospitals) in much of the northern valley portion of the OA. While an outage was ultimately averted, the threatened impacts to health, safety, and the economy serve as a reminder of the importance of all forms of energy to a functioning society.

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Location: Because energy supplies tend to be generated and distributed in regional networks, a large portion of, or the County may be affected by an energy emergency. Local energy emergencies may occur as a result of damaged infrastructure or distribution system operating errors. Numerous factors outside the County have the potential to create energy emergencies. They include: crude oil supply interruption, out-of-region generating equipment failure or operator error in distant control centers, earthquakes dropping transmission lines and cyber-terrorism that intrudes into electric or gas generation or distribution systems.

History: Numerous large and small energy disruptions have occurred in the County. The most common cause was failure of transmission systems or management errors. An interesting exception occurred in 2000 through 2001 when much of California, including the County, experienced power outages and rolling blackouts due to a host of economic and regulatory issues. **Table 5-8** lists major energy emergencies that have affected California.

Table 5-8: Power Disruptions in California 1996 to 2016			
Date/s	Locations	Numbers Affected	Cause
August 10, 1996	14 western states	> Over 4 Million	Power line failure and high demand
December 8, 1998	San Francisco, CA	> 900 Thousand	Operational error after substation maintenance
2000 through 2001	CA	The entire state	Deregulation and inadequate governance
September 8 – 9, 2011	CA, AZ, Mexico	> 5 Million	Monitoring equipment failure

Impact of Climate Change: Climate change is not likely to directly result in energy emergencies. Second order effects of climate change may potentially have an impact on the reliability and availability of energy. As California experiences less rainfall and lower snowpack levels in the Sierras and other mountains, hydro-electric power will be less available. Concomitantly, limits on greenhouse gas emissions will constrain conventional power plant production. Renewable power sources production is expected to increase as power demand rises, but they are less stable and reliable than hydro or conventional power production. Without careful planning, power shortages or disruption will occur.

Extent: A future energy emergency could extend to the entire County, particularly if a natural or manmade power generation or distribution disruption or an oil production interruption occurs. The duration of future events will be based on the cause and type of energy emergency.

Probability of Future Events: It is possible but only somewhat likely that an energy emergency will occur which will affect large portions of the County within ten years. History of events is less than or equal to 25% likely per year. Local energy emergencies, such as small area blackouts due to equipment failure, will likely occur more frequently.

5.2.7 Extreme Heat

Nature: According to the National Weather Service (NWS), extreme heat occurs when the temperature reaches high levels or when the combination of heat and humidity causes the air to become oppressive and stifling. The NWS will issue advisories or warnings when the heat index is expected to have a significant impact on public safety. The common guidelines for the issuance of excessive heat warnings are when the maximum daytime index is expected to reach 105°F and the nighttime low temperature does not fall below 75°F.⁵

Excessive Heat Outlook occurs when the potential exists for an excessive-heat event in the next three to seven days. The NWS will provide an indication of areas where people and animals may need to take precautions. The outlook is based on a combination of temperature and humidity, Heat Index,⁶ over a certain number of days. An outlook is used to indicate that a heat event may develop. It is intended to provide information to those who need lead time to prepare for the event, such as public utilities, emergency management personnel, and public health officials. **Table 5-9** provides a description of heat- related public notifications.

Table 5-9: Heat Advisories, Warnings and Watches	
Heat Advisories	<p>The Heat Index has to remain at or above 100°F for a minimum of two hours. Heat advisories are issued by zone when any location within that zone is expected to reach criteria. For example: If you expected the heat index to reach 100°F in Visalia, a heat advisory would be issued for that county.</p> <p>A heat advisory means that people can be affected by heat if precautions are not taken. The issuance of a heat advisory is important to raise public awareness that these precautions need to be taken. Heat advisories are also used to trigger other actions and regulations such as no evictions, no turning off of power, changing outdoor work requirements, etc.</p>
Excessive Heat Watches	<p>Issued when Heat Warning criteria is possible (50-79%) 1 to 2 days in advance.</p>
Excessive Heat Warnings	<p>Criteria for an Excessive Heat Warning is a Heat Index of 105°F or greater that will last for two hours or more. Heat Warnings are issued by zone when any location within that zone is expected to reach criteria. For example: If you expected the Heat Index to reach 105°F in Visalia an Excessive Heat Warning would be issued for that zone.</p> <p>A heat warning means that some people can be seriously affected by heat if precautions are not taken. Studies in Canada, Europe, and the U.S. have indicated that mortality begins to increase exponentially as the heat increases or stays above a Heat Index of 104°F. Note:</p> <p>In addition to raising public awareness, the issuance of a heat warning will alert hospitals and officials to take certain actions to prepare and respond to an increase in emergency calls, and activate programs to check on elderly and the home-bound. In some cases, cooling centers can be open or designated and donation programs activated for fans and air conditioners. As in the case of an advisory, certain regulations</p>

⁵ NWS <http://www.nws.noaa.gov/om/heat/ww.shtml>

⁶ NWS http://www.nws.noaa.gov/om/heat/heat_index.shtml for a detailed description

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may change such as turning off people's electricity, evictions, and outside work requirements.

History: According to the NWS, there are no weather monitoring stations with detailed records located in the County; the nearest monitoring station with detailed records is located in the City of Fresno. This area experiences similar climatologic patterns as the County and may be considered as a proxy for the weather experienced in the County. The highest recorded temperature in Visalia ever officially recorded is 115°F which occurred on three dates: July 26, 1931; August 12, 1933; and July 18, 1935. **Table 5-10** shows the recent record high temperatures recorded in Visalia.

Table 5-10: High Temperatures in Visalia since 2006	
Month and Year	Temperature (degrees F)
July 2006	113
July 2007	107
June 2008	109
July 2009	107
August 2010	107
July 2011	104
June 2012	108
June, July 2013	105
June 2014	109
July 2015	108
June, July 2016	106

Source: NWS

Location: When an excessive heat event occurs, it likely affects the low elevations in the western portion of the County, affecting all cities and the unincorporated areas of the County. Once higher elevations are reached, such as the area of the Tule River Tribe in the Sierra Nevada, extremely high heat levels are less likely.

Impact of Climate Change: Climate change is likely to increase the number and severity of extreme heat events in the County. This will place more vulnerable populations at greater risk of heat related injuries. Additionally, more frequent and severe heat events will reduce agricultural production, weaken and kill fruit trees and require more water for irrigation.

Extent: The hottest months are July and August; these months have average high temperatures of 94 and 93° F, respectively, with temperatures often greater than 100°F. See **Table 5.9** for the range of temperature and other details for heat advisories, watches and warnings

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Probability of Future Events: Based on historical occurrences, the County can expect to experience a Heat Index of higher than 100° F several times every year, generally between April and September. The County can also expect temperatures to exceed 100°F every summer. It is highly likely that extreme heat events will occur within a calendar year (1/1=100% chance of occurring). Event is 100% likely per year.

5.2.8 Fire

Nature: A wildfire is an uncontrolled fire spreading through vegetative fuels. Wildfires can be caused by human activities (such as arson or campfires) or by natural events (such as lightning). Wildfires often occur in forests or other areas with ample vegetation. Wildfires differ from other fires due to their large size, the speed at which the fires can spread, and the ability of the fire to change direction unexpectedly and to jump gaps, such as roads, rivers, and fire breaks. In areas where structures and other human development meet or intermingle with wildland or vegetative fuels (referred to as the wildland urban interface or WUI), wildfires can cause significant property damage and present extreme threats to public health and safety. The following three factors contribute significantly to wildfire behavior and can be used to identify wildfire hazard areas.

Topography: As slope increases, the rate of wildfire spread increases. South-facing slopes are also subject to more solar radiation, making them drier and thereby intensifying wildfire behavior. However, ridgetops may mark the end of wildfire spread because fire spreads more slowly or may even be unable to spread downhill.

Fuel: The type and condition of vegetation plays a significant role in the occurrence and spread of wildfires. Certain types of plants are more susceptible to burning or will burn with greater intensity, and nonnative plants may be more susceptible to burning than native species. Dense or overgrown vegetation increases the amount of fuel load. The ratio of living to dead plant matter is also important. The risk of fire increases significantly during periods of prolonged drought, as the moisture content of both living and dead plant matter decreases; or when a disease or infestation has caused widespread damage. The fuel's continuity, both horizontally and vertically, is also an important factor.

Weather: The most variable factor affecting the behavior of wildfires is weather. Temperature, humidity, wind, and lightning can affect chances for ignition and spread of fire. Extreme weather, such as high temperatures and low humidity, can lead to extreme wildfire activity. By contrast, cooling and higher humidity often signal reduced wildfire occurrence and easier containment. Years of precipitation followed by warmer years tend to encourage more widespread fires and longer burn periods. Also, since the mid-1980s, earlier snowmelt and associated warming due to global climate change has been associated with longer and more severe wildfire seasons in the western U.S.

Wildfires can have serious effects on the local environment, beyond the removal of vegetation. Soil exposed to intense heat may lose its capability to absorb moisture and support life. Exposed soils erode quickly and enhance siltation of rivers and streams, thereby enhancing flood potential, harming aquatic life, and degrading water quality. Lands stripped of vegetation are also subject to increased debris flow hazards, as described above. Wildfires can also greatly affect the air quality of the surrounding area.

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History: Historical information between 1910 and 2014 indicates that 610 wildfires occurred in the County which burned approximately 1,328,000 acres during this 104-year time period. The following causes represent approximately 95% of the 610 recorded wildfires (approximately 1.3 million acres), and are included as follows: miscellaneous 36% (532,800 acres); lightning 27% (309,000 acres); unknown or unidentified 14% (97,000 acres); arson 8% (63,300 acres); equipment use 5% (43,500 acres); smoking 3% (53,400 acres); and campfires 2% (184,600 acres). The remaining causes which include escaped prescribed burns, debris, vehicles, structures, powerlines, railroads and playing with fire account for the remaining 5% (44,400 acres) of the recorded wildfires. **Appendix C** lists documented fires over 1000 acres that have burned in the County since 1985.

Location: Public Resources Code 4201-4204 and Government Code 51175-89 directed CAL FIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones are referred to as fire hazard severity zones and represented as very high, high and moderate. Specifically, the maps were created using data and models describing development patterns, potential fuels over a 30- to 50-year time horizon, expected fire behavior and expected burn probabilities. The maps are divided into local responsibility areas and State responsibility areas. Local responsibility areas generally include incorporated cities, cultivated agriculture lands and portions of the desert.

Local responsibility area fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to the local government. The fire hazard severity zones for the area of local responsibility in the County are shown on **Figure B-4 (Appendix B, Hazard Figures)**. Fire severity zones are depicted for the Cities of Porterville and Woodlake in **Figures B-13 and B-20 (Appendix B, Hazard Figures)**.

State responsibility area is a legal term defining the area where the State has financial responsibility for wildfire protection. Incorporated cities and Federal ownership are not included. The prevention and suppression of fires in all areas that are not State responsibility areas are primarily the responsibility of local or Federal agencies.

The portion of the County that transitions from the valley floor into the foothills and mountains is characterized by high to very high threat of wildfire; this includes the cities of Porterville and Woodlake, the jurisdiction of Tulare County Office of Education (TCOE), the Tule River Tribe Reservation and areas of the County unincorporated. Steeper terrain in these areas increases the threat of wildfire. The western portion of the County has little or no threat of wildfire. The risk of wildfire increases where human access exists in high fire hazard severity zones, such as the Sierra Nevada Mountains and foothills, because of a greater chance for human carelessness and because of historic and current fire management practices.

Impact of Climate Change: Climate and weather have long been acknowledged as playing key roles in wildfire activity, and global warming is expected to exacerbate fire impacts on natural and urban ecosystems. Predicting future fire regimes requires an understanding of how temperature and precipitation interact to control fire activity.⁷ Since 2012, record drought and record temperatures, have weakened trees throughout

⁷ Jon E. Keeley and Alexandra D. Syphard; *Climate Change and Future Fire Regimes: Examples from California*; Geoscience Review; August 2016

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California, resulting in millions of acres of failing forestland that then become vulnerable to disease and infestation. Infestations, such as those caused by native bark beetles, have caused tree mortality of epidemic proportions. The scale of tree mortality in California contributes to significantly increased wildfire risks, and presents life safety risks due to falling trees that can injure or kill people. The immediate consequence of tree mortality on California forestlands increases the potential for wildfires, further spread of forest insect tree damage, threats to critical public safety infrastructure from falling trees, reduced forest carbon stocks, loss of commercial timber values to landowners, and diminished wildlife habitat. Due to these increased risks, the County proclaimed states of emergency for tree mortality.

In addition, and in response to the millions of dead trees, a State of Emergency Proclamation was issued by the Governor. A Tree Mortality Task Force, comprised of State and Federal agencies led by CAL FIRE, Cal OES and the Governor's office has identified six counties as high hazard zones due to dead and dying trees and the hazards, this tree mortality presents. The 10 counties include: Amadore, Calaveras, El Dorado, Fresno, Kern, Madera, Mariposa, Placer, Tulare, and Tuolumne. Both the State's and the County's Tree Mortality Task Forces are structured as a Multi-Agency Coordination Group and meet monthly to exchange information and updates among stakeholders. Participants are encouraged to discuss needs and concerns, and leverage each other's subject matter expertise and resources to further response efforts.

Extent: CAL FIRE has classified 22% of the County as high wildfire hazard areas and an additional 27% as very high wildfire hazard areas. These areas are primarily in the foothills and mountain regions in the eastern portion of the County and to a large extent on National Forest or National Park land. Figure B- depicts the fire severity rating for areas of the County.

Probability of Future Events: Based on historical events, on average, slightly more than on wildfire of over 1000 acres burns within the County each year. Therefore, it is highly likely that a wildfire event will occur within the calendar year impacting the County. Wildfire events have a greater than 1 in 1-year (100%) chance of occurring.

5.2.9 Floods

Nature: A flood occurs when the existing channel of a stream, river, canyon, or other watercourse cannot contain excess runoff from rainfall or snowmelt, resulting in overflow onto adjacent lands. A floodplain is the area adjacent to a watercourse or other body of water that is subject to recurring floods. Floodplains may change over time from natural processes, changes in the characteristics of a watershed, or human activity such as construction of bridges or channels. River channels change as water moves downstream, acting on the channel banks and on the channel bottom. On the outside of a channel curve, the banks are subject to erosion as the water scours against them. On the inside of a channel curve, the banks receive deposits of sand and sediment transferred from the eroded sites. In areas where flow contains a high-sediment load, the course of a river or stream may shift dramatically during a single flood event. There are three major types of flooding within the County: riverine flooding (also known as overbank flooding), shallow flooding, and localized drainage flooding.

- Riverine flooding occurs when downstream channels receive more rain or snowmelt from their watershed than normal, or a channel is blocked by an ice jam or debris. Excess water overloads the channels and flows out onto the floodplain. When flooding occurs in steep, mountainous

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areas, it is usually confined, strikes with less warning time, and has a short duration. In comparison, larger rivers typically have longer, more-predictable flooding sequences and broad floodplains. Riverine floodplains range from narrow, confined channels in the steep valleys of mountainous and hilly regions to wide, flat areas in plains and coastal regions. The amount of water in the floodplain is a function of the size and topography of the contributing watershed, the regional and local climate, and land use characteristics.

- Shallow flooding occurs in the valley of the County. Shallow flooding may consist of sheet flow or ponding and generally occurs in flat areas where a lack of channels prevents water from draining away easily. Sheet flow occurs where there are inadequate or no defined channels. Floodwaters spread over a large area at a uniform depth after an intense or prolonged rainfall during which surface soils reach saturation. Ponding occurs in some flat areas when runoff collects in depressions and cannot drain out. The floodwaters remaining form a temporary pond until they infiltrate into the soil, evaporate, or are pumped out.
- Localized flooding in the County is generally associated with irrigation ditches and canals in the valley, which may contribute to flooding because of levee overtopping or failure. Major canal systems and numerous ditches follow the line of the foothills and cut across the natural drainage pattern. When flood flows overtop the banks of the channels in reaches of inadequate capacity, they may pond against the embankments of the canals (such as roads and railroads), or flow along the embankment until they reach a crossing. Floodwaters may also back up behind obstacles until they overtop a canal bank, then flow down the canal to increase flooding downstream.

History: Tulare County has a long history of flooding along its major rivers: the Kings, Kaweah, and Tule Rivers. Major flood protection facilities were completed on the Kaweah and Tule rivers, and since their completion, the most-severe flooding events, as described below, occurred in 1966 and 1969. Recent improvements to raise the elevation of the spillway at the Terminus Dam and planned improvements to the Success Dam will help to minimize future flood risk. Flooding has also occurred on the White River a small waterway contained wholly in the County.

- The 1966 flood on the Tule River was a 120-year event. Despite the presence of Success Dam and Reservoir, which has been operated by the USACE since 1961, significant damage still occurred. According to the 1971 County Flood Control Master Plan, the December 1966 rains were so intense over the watershed of the Tule River that they produced uncontrolled spill at Success Dam. In addition, snowfall was so great that the resulting runoff could not be controlled completely. Water poured into Tulare Lake and flooded agricultural land. Primary damage from the 1966 flood was estimated at \$21.4 million.
- The January 1969 flood caused flooding along Sand Creek, Cottonwood Creek, Yokohl Creek, Lewis Creek, Frazier Creek, Deer Creek, White River, and in the southwest corner of the County. Terminus Dam, which has been operated by the USACE since 1962, helped reduce the potential flood hazards on Kaweah River and its distributaries. However, flood damage could not be completely avoided. Most of the flooding occurred in agricultural areas in the valley. Some urban damage occurred in Cutler, Earlimart, East Orosi, Orosi, Strathmore, Dinuba, Exeter, and Lindsay.

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The flood caused over \$86.2 million (1969 dollars) in damage and approximately 100,000 acres in the County were flooded.

Over the last two decades, the County has experienced a number of severe floods. During 1997 to 1998, the mountainous areas of the County sustained flooding as heavy rains swelled creeks over their banks. Heavy rains contributed to high runoff and flooding throughout Kings Canyon and Sequoia National Park. Numerous roads, bridges, and trails were damaged. Flooding from the Tule and White Rivers caused extensive agricultural damage in the San Joaquin Valley. The communities of Three Rivers, Springville, Lindsay, and Earlimart also experienced significant flooding. Lake Success above Porterville and Kaweah Lake were both filled in about 24 hours. Total damages were estimated at more than \$1 million in the County.

In 2006, the State of California issued three proclamations for severe rainstorms between late December 2005 and April 2006. This series of storms brought unusually heavy rains that caused flooding, mudslides, debris accumulation, damaged roads, and loss of human life in 40 California counties, including the County. Damage occurred primarily in Cutler-Orosi.

The County experienced severe rainstorms between December 2010 and January 2011 which led to a Presidential Disaster Declaration for the State of California, including the County and nine other counties. For the County, the constant rainfall caused major flooding and millions of dollars in damage to agriculture crops, infrastructure, roads and homes. Primary estimates from the County noted more than 60 miles of road damage, 33 homes and two commercial properties received flood damage and six residents from two homes were displaced from their homes due to the flooding.

In February 2017, A broken levee on Poso Creek in southern Tulare County near Alpaugh flooded several square miles of farmland, and two or three mobile homes were reported affected. The break was within a week.

Most recently, as a result of excessive precipitation in early 2017, Tulare County experienced flooding from Poso Creek in the southwest portion of the County, impacting almost exclusively agricultural lands. Rapid snow melt with the first excessive heat event of the summer in June, 2017, resulted in flood control releases greater than 14,000 cubic feet per second (cfs) from Pine Flat Dam, which inundated areas along the Kings River in Tulare and Fresno Counties and ultimately caused multiple breaches impacting several local homes and businesses.

Location: Watercourses in the County originate in the Sierra Nevada mountain range and foothills and flow in a westerly or southwesterly direction across the valley floor. The County has two primary stream systems which drain the mountainous portions: the Kaweah River and Tule River. When the two rivers reach the valley floor, they form distributary systems.

The Kaweah River distributary system contributes primarily to flooding in the cities of Tulare, Visalia, Woodlake, Farmersville, and unincorporated areas of the County. The Tule River flows in a westerly direction and eventually reaches the Success Reservoir. It has three main forks: the North, Middle, and South Forks. The North Fork and Middle Fork join together just above the town of Springville. The South Fork joins the other two forks at the Success Reservoir. The Tule River then flows to Porterville. In general,

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all major and minor streams within the County are dissipated by irrigation diversions, channel percolation, or evapotranspiration. During flood events, stream flows from major streams may reach the Tulare lake bed, a former lake encompassing most of the southern San Joaquin Valley that disappeared by the early twentieth century due to draining and land reclamation.

Other major rivers in the County include the Kings River and the Kern River. The Kern River system drains the eastern one-third of the County and flows in a southerly direction toward east of the city of Bakersfield. It then discharges onto the floor of the San Joaquin Valley, into Buena Vista Lake and Tulare Lake. Almost all lands within the County which are drained by the Kern River system are located within Sequoia National Forest. The Kings River drains the northeastern portion of the County, flowing onto the valley floor in a southerly direction and entering the County just west of Dinuba. Waters from the Kings River eventually end up in Tulare Lake or the San Joaquin River.

Throughout the valley portion of the County, several irrigation companies operate a large network of irrigation ditches and canals. These irrigation ditches and canals may contribute to localized flooding because of levee overtopping or failure. Due to the flatness of the valley area of the County, canal levees, and highway and railroad embankments collect and divert floodwater which may cause local areas of ponding. The largest canal, the Friant-Kern Canal, is a major conveyance facility of the Central Valley Project, a U.S. Bureau of Reclamation Federal water project in California which was devised to provide irrigation and municipal water to California's Central Valley. The Friant-Kern Canal runs from the north portion of the County to the south along the base of the foothills. During recent historical flood events, the canal has not experienced overtopping or failure.

Seasonal/uncontrolled flooding on Deer Creek, White River, and Poso Creek along with potential flooding on other uncontrolled streams / rivers, in the southern portion of the County creates problem recurring areas. In addition to localized flooding of irrigation ditches and canals, other flooding in the valley of the County occurs as sheet flow and ponding in flat areas where there are inadequate or undefined channels.

Impact of Climate Change: According to the Sacramento and San Joaquin Basins Climate Impact Assessment, reductions in precipitation from 3-10% are expected in the San Joaquin and Tulare Lake basins of the Central Valley through 2100. Combined with higher temperatures, more of the precipitation will occur as rainfall, leading to increased runoff and reduced snowpack. Per the assessment, with current reservoir capacities, excess runoff would need to be released from reservoirs early for flood control, which would lead to overall reductions in the amount of stored water available for use over the dry months.⁸

Climate change can also lead to more frequent and extreme weather. This includes heavy rainfall events, which can trigger landslides and debris flows that are especially problematic in areas where wildfires have occurred. Heavy rain events can also overwhelm sewage and water treatment facilities with negative impacts to water quality.

Extent: The magnitude of flooding that is used as the standard for floodplain management in the U.S. is a flood with a probability of occurrence of 1% in any given year. This flood is also known as the 100-year

⁸ U.S. Department of Interior, Bureau of Reclamation; *West-Wide Climate Risk Assessment Sacramento and San Joaquin Basins Climate Impact Assessment*; Reclamation, Managing Water in the West, September, 2014

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flood or base flood. The most readily available source of information regarding the 100-year flood, as well as the 500-year flood (0.2 % probability of occurrence in any given year), is the system of Flood Insurance Rate Maps (FIRMs) prepared by FEMA. These maps are used to support the NFIP.

FEMA has prepared a digital FIRM (DFIRM), effective June 16, 2009, for the incorporated and unincorporated areas of the County. FEMA has not prepared flood hazard data for Federal lands in the County, which include the Sequoia National Park. **Figure B-5 (Appendix B, Hazard Figures)** shows the 100-year floodplain and 500-year floodplain for the County. **Figures B-7, B-10, B-12, B-14, B-16, B-18 and B-21 (Appendix B, Hazard Figures)** depict detailed floodplains for individual jurisdictions.

Flooding in the valley is primarily characterized as shallow flooding with depths less than three feet in the floodplains. Velocities are low, and flooding generally results in deposition of large amounts of sand, silt and debris over the flooded areas. Shallow flooding from local runoff is caused by high-intensity localized rainfall, such as the 5.55 inches of precipitation that occurred in a five-day period in December 1966.

Probability of Future Events: Floods usually occur in low-lying areas of the County that do not have extended periods of below-freezing temperatures, significant snowfall during the winter or after heavy rainfalls following prolonged dry periods. Although the climate throughout the County varies considerably due to differences in elevation, it is generally hot and dry with low humidity during the summer. In the valley portions of the County, very mild conditions with infrequent snowfall at low elevations predominate during winter. Over 75% of the annual precipitation occurs between November and April. Average annual precipitation varies widely, from eight inches in the southwest corner of the County to 45 inches in the Sierra at the headwaters of the Kaweah and Tule rivers.

Flood season extends from November through June with general rain floods usually occurring between November and April, and snowmelt floods occurring from April to June. Based on previous occurrences, severe flooding is most likely to occur during strong El Niño years (every five to seven years). Therefore, it is possible a flood will occur which will affect the County and several of its jurisdictions within five years (a 1 in 5-year chance of occurring having a $1/5 = 20\%$). History of events is greater than 20% likely per year.

5.2.10 Hazardous Material and Oil Spills

Nature: Hazardous materials are substances that may have negative effects on health or the environment. The MJLHMP does not focus on the hazards contained in everyday products but rather on the hazards associated with potential releases of hazardous substances from transportation corridors and fixed facilities within the County. Exposure to hazardous materials causes injury, illness, or death. Effects may be felt over seconds, minutes, or hours (short-term effects) or not emerge until days, weeks, or even years after exposure (long-term effects). Some substances are harmful after a single exposure of short duration, but others require long episodes of exposure or repeated exposure over time to cause harm. Hazardous materials in the County primarily consist of paints, solvents, adhesives, gasoline, household cleaners, batteries, pesticides and herbicides, dairy products and ammonia. The toxicity of a specific substance is one important factor in determining the risk it poses, but other factors can be just as important, if not more so. Factors affecting the severity of a hazardous material release include:

- Toxicity
- Quantity

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- Dispersal characteristics
- Location of release in relation to population and sensitive environmental areas
- Efficacy of response and recovery actions

Mobile incidents include those that occur on a roadway or a railroad. These incident-related releases are dangerous because they can occur anywhere, including near human populations, critical facilities or environmentally sensitive areas. Mobile incident-related releases can also be more difficult to mitigate because of the great area over which any given incident might occur and the potential distance of the incident site from response resources.

The release of hazardous substances from stationary sources can be caused by human error, equipment failure, intentional dumping, acts of terrorism, or natural phenomena. Earthquakes pose a particular risk, because they can damage or destroy facilities containing hazardous substances. The threat posed by a hazardous-material event can be amplified by restricted access, reduced fire suppression and spill containment capability, and even complete cutoff of response personnel and equipment. In addition, pipeline transportation of substances such as petroleum products, natural gas, and other chemicals exist throughout the County. Southern California Gasoline Company is the primary natural gas distributor in the County.

California manages facilities and release on the local level through the California Unified Program Agency (CUPA). The County Environmental Health is the CUPA for this jurisdiction. There are currently 12,131 CUPA facilities in the County. Of these CUPA facilities, 480 are classified as extreme-hazard substance sites. Common substances at the extreme-hazard substance sites are ammonia, ethylene, hydrogen peroxide and peroxyacetic mixtures, paraquat dichloride, and sulfur dioxide. In addition, the Visalia County Fire Department serves as the primary hazardous materials response agency.

History: The National Response Center, which serves as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment in the U.S., shows that from 2002 through 2016, hundreds of releases have occurred. The most common occurrences include truck accidents where oil spills, power transformer leaks resulting from cars striking poles, dairy spillage, ammonia leaks from agriculture operations and stationary petroleum spills. While most of the petroleum spills are less than 100 gallons, some of the dairy spills were greater than 1,000 gallons. The largest reported release was 35,000 gallons of dairy product in September 2008. These incidents are listed in **Table 5-11**.

Table 5-11: Representative Fixed Hazardous Material Releases 2005 – 2015				
Date	Location	Incident Cause	Material	Amount/Action
4/21/06	Rd. 36 and Merritt Dr.	Dumping	Lab drug waste	80 pounds
9/27/08	Rd. 72 Pixley	Human error	Dairy	35,000 gallons
7/1/09	13129 Ave. 248 Tulare	Human error	Ammonia	120 pounds
1/25/10	Ave. 93 and Rd. 236	Human error	Sewage	60,000 gallons
9/31/11	19531 Ave. 248 Tulare	Pipe rupture	Natural gas	5 evacuees
3/26/12	1304 Goshen Ave. Visalia	Transformer leak	Mineral oil	142 gallons

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8/8/12	Pratt Ave. Tulare	Overflow	Dairy	7000 gallons
3/17/13	400 S M St. Tulare	Over-pressurization	Ammonia	73.5 pound
5/20/13	Blackstone Ave. Tulare	Overflow	Dairy	3000 gallons
7/22/14	Dinuba El Monte/Monte Vista	Punctured 4" gas main	Natural gas	52 homes, 7 businesses and 1 apartment complex evacuated
1/29/15	S. Ave 48 and Rd 168	Fire and tank leak	Diesel # 2	4000 gallons

Location: In Tulare County, a hazardous material transportation accident is most likely to occur along Highways 43, 63, 65, 99, 198, and the railroad tracks. Trucks and rail cars that use these transportation corridors commonly carry a variety of hazardous materials, including gasoline, other petroleum products, and other chemicals known to cause human health problems, including fertilizers, pesticides, and industrial chemicals. Cities that are bisected by both major highways and railroad tracks include the cities of Exeter, Lindsay, Tulare and Visalia. However, the entire County is vulnerable to a hazardous material event.

There 99 facilities that are included in the California Accidental Release Program. These facilities are scattered throughout the western portion of the County; therefore, all participating jurisdictions, except for the Tule River Tribe, are susceptible to the release of a hazardous substance. These facilities include food processing facilities, warehouses, cold storage, and water treatment plants, to name a few.

Extent: The extent of a hazardous materials release varies widely based on the nature and quantity of the material released. Historically, releases have been localized. In addition, the CUPA proactively manages facilities to mitigate potential concerns. However, accidents, especially traffic accidents, are unforeseeable and ever present.

Probability of Future Events: Based on previous occurrences, it is likely a minor hazardous materials event due to a vehicular accident will occur every one to five years (a $1/5=20\%$ chance of occurring) and every one to three years (a $1/3=33\%$ chance of occurring) due to a rail accident in the County. History of events is greater than 20% but less than or equal to 33% likely per year. In addition, based on previous occurrences, the County can expect a minor hazardous material event two to seven times a year from equipment failure, operator error, dumping, or other causes. Based on previous event history, it is likely a fixed incident will occur within the County from a minor hazardous material event within two to seven years (a $1/3=33\%$ chance of occurring) due to various factors indicated above. History of events is greater than 20% but less than or equal to 33% likely per year.

5.2.11 Landslides/Mudslides/Debris Flows

Nature: Landslide is a general term for the dislodging and fall of a mass of soil or rocks along a sloped surface or the dislodged mass itself. The term is used for varying phenomena, including mudflows, mudslides, debris flows, rock falls, rock slides, debris avalanches, debris slides and slump-earth flows. Landslides may result from a wide range of combinations of natural rock, soil or artificial fill. The susceptibility of hillside and mountainous areas to landslides depends on variations in geology,

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topography, vegetation and weather. Landslides may also occur because of indiscriminate development of sloping ground or the creation of cut-and-fill slopes in areas of unstable or inadequately stable geologic conditions. Additionally, landslides often occur together with other natural hazards, thereby exacerbating conditions, as described below:

- Shaking due to earthquakes can trigger events ranging from rock falls and topples to massive slides.
- Intense or prolonged precipitation that causes flooding can also saturate slopes and cause failures leading to landslides.
- Wildfires can remove vegetation from hillsides, significantly increasing runoff and debris flows.
- Landslides into a reservoir can indirectly compromise dam safety; a landslide can even affect the dam itself.

Mudslides are another type of soil failure, and are defined as flows or rivers of liquid mud down a hillside. They occur when water accumulates under the ground, usually following long and heavy rainfalls. If there is no brush, tree, or ground cover to hold the soil, mud will form and flow down the slope. Debris flows are like mudslides. They typically occur after large fires that destroy vegetation and result in a burned layer of soil that is unable to sufficiently hold moisture from precipitation. After heavy rains, the burned soil may flow down steep hillsides along with rocks, trees and other landscape features creating a moving stream of debris.

History: No major landslides, mudslides or debris flows have been recorded in the populated portions of the County.

Location: In the County, areas that are more prone to landslide/mudslide/debris flows include the foothill and mountain areas where fractured and steep slopes are present (as in the Sierra Nevada), where less-consolidated or weathered soils overlie bedrock, or where inadequate ground cover accelerates erosion. Erosion and slumping of soils can also occur along bluffs along the Kaweah, Kern and Tule Rivers. Therefore, the unincorporated areas of the County and the Tule River Tribe are susceptible to landslide/mudslides.

Extent: Landslides in the foothill and mountain areas of the County, such as in the steep slopes of the Sierra Nevada, are typically deep-seated landslides which are hundreds to thousands of feet in length or width and only move fractions of an inch per year. However, during heavy rainfall or seismic events, a landslide or mudslide can move several yards a minute or faster. In these areas, rocks may have been weakened through faulting and fracturing, uplift and soils due to heavy or prolonged rainfall.

Probability of Future Events: Due to the possibility of earthquakes in the region and the presence of steep slopes in the foothill and mountain areas, landslides/mudslides can be expected to occur during or shortly after strong El Niño rainfall years (every 5 to 7 years) or during a large earthquake event. It is possible a landslide event will occur within the County within two to seven years (a 1/5=20% chance of occurring). Probability is greater than 10% but less than or equal to 20% likelihood per year. Occurrence in populated of the County is unlikely.

5.2.12 Levee Failure

Nature: Levees are typically earthen embankments designed to contain, control, or divert the flow of water to provide some level of protection from flooding. Some levee systems are built for agricultural purposes and provide flood protection and flood-loss reduction for farm fields and other land used for agricultural purposes. Urban levee systems are built to provide flood protection and flood-loss reduction for population centers and the industrial, commercial, and residential facilities within them.

Levees are designed to provide a specific level of flood protection. Agricultural levee systems provide a level of protection that is appropriate based on the value of the assets being protected. Urban levee systems, because they are designated to protect developed areas, are generally built to higher standards. No levee system provides full protection from all flooding events to communities located behind it. Some level of flood risk exists to any levee-impacted areas.

Levee failure is the overtopping, breach or collapse of the levee wall. Levees may fail due to earthquake, internal erosion, poor engineering/construction or landslides; however, levees most commonly fail as a result of significant rainfall. During a period of heavy rainfall, water inside the levee can accumulate and flow over the top. The overflow of water erodes the levee, creating deep channels. Eventually the levee will weaken, resulting in a breach or collapse of the levee wall and uncontrollable amounts of water will be released.

History: The last major levee failure in the County was during the winter of 1998-1999. Levee failure on the White River caused Highway 99 to be shut down at the community of Earlimart. However, in recent years FEMA has embarked on a flood map modernization initiative, to update and modernize the existing FIRMs for the majority of the U.S. This process revealed that a number of levees nationwide have not been assessed since their original inclusion in the NFIP and may no longer be in compliance with FEMA flood program regulations. Should a levee be non-compliant, it will be decertified and the residential structures behind the levee will be subject to the mandatory purchase of flood insurance and additional floodplain regulations.

Location: Levees are an interesting anomaly in the County. They are not limited to just tributary waterways but also distributary waterways present in the alluvial fan geography. Property rights for levees reside almost exclusively with private owners, with waterway easements being equally limited. There is not a complete inventory list of all levees on the watercourses throughout the County. However, the following levees and their locations are known.

- The Friant-Kern canal flows north to south through the County on the eastern side of the valley.
- The St. Johns River begins at the diversion dam in the Kaweah River and flows in a westerly direction along the north side of the city of Visalia; the system is over 14 miles long. The levees on the St. Johns River were at one point maintained by Levee Maintenance Districts I and II. However, District I ceased maintenance in 1997 and District II has been inactive for over two decades.
- Both the Deer Creek and the White River run east to west in the southern portion of the County. The Deer Creek levees begin west of Highway 43 and extend at least to Highway 99, approximately 10 miles. The White River levees begin in the westerly distribution system constructed during the

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1930s and 1940s between Highway 43 and Road 128 which is composed primarily of excavated canals with levees. The levee system continues easterly to Road 208 about 16 miles.

- Sand Creek holds the only levees to which the County has property rights. Sand Creek is in the northwest part of County from Avenue 432 to Avenue 384 and stretches 8.5 miles.

Extent: Currently, there is no database for the County that completely accounts for all levees and their condition. Without the location and design/condition of each levee, the extent of levee failures for the County cannot be determined.

Probability of Future Events: Due to the lack of knowledge regarding the levee system in the County, the probability of future levee failures in the County is unknown. However, levee failure may result from a large winter storm or seismic event. Therefore, due to past levee failure history, it is considered possible but unlikely that a levee failure event will occur within the next ten years (a one in ten-year chance of occurring – $1/10 = 10\%$). Event history is less than or equal to 10% likelihood per year.

5.2.13 Pandemics and Vector Borne Diseases

Nature: An influenza pandemic or other viral disease outbreak that occurs when a new strain of virus emerges in the human population that may cause serious illness or death and spreads easily from person to person worldwide. Pandemics may be categorized from mild to severe depending upon the number of people who become ill or die from the disease.

Pandemics are different from seasonal outbreaks of influenza that are caused by subtypes of influenza viruses that already circulate among people. Pandemic outbreaks are caused by entirely new subtypes to which the population has no immunity because the subtype has either never circulated among people, or has not circulated for a long time. Seasonal influenza occurs routinely worldwide each year, causing an average of 36,000 deaths annually in the U.S.

Vector-borne diseases (VBDs) are viruses and bacteria spread by vectors such as mosquitoes, ticks and fleas. The most prevalent VBDs in California and in the County include Plague, Zika and West Nile Virus. Outbreaks are not only concerning to humans but can be devastating to livestock operations.

History: Nearly 40 years have passed since the last influenza pandemic. During the last century, there have been three influenza pandemics. The influenza pandemic of 1918 was especially severe, killing a large number of young, otherwise healthy adults. That pandemic caused more than 500,000 deaths in the U.S. and an estimated 40 million deaths around the world. Subsequent pandemics in 1957-58 and 1968-69 caused far fewer fatalities in the U.S.: 70,000 and 34,000 deaths respectively but caused significant illness and death around the world.

The California Department of Public Health and Tulare County Health Department conduct annual surveys of VBDs. In a report recently released, they documented the annual occurrence of Plague and West Nile Virus. In addition, the presence of the Zika Virus is rapidly rising in the County and across the U.S. A public health emergency was declared by the United States Department of Health and Human Services on April 26, 2009. The County was part of a statewide Presidential Disaster Declaration on April 28, 2009 for a

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H1N1 Flu outbreak and followed with a County Emergency Proclamation on April 29, 2009. On October 23, 2009, the President declared a national emergency as a result of the potential impact on health care resources due to the H1N1 Influenza pandemic. The declaration of a national public health emergency freed up federal assets, such as the SNS and vaccines, for expedited delivery to states requesting these assets. However, no federal funding was made available to states for responding to this emergency.

Location: Currently, the potential exists for a pandemic or VBD to cause serious illness and death to many people throughout the world; the County is no exception.

Extent: Several characteristics of an influenza pandemic differentiate it from other public health emergencies. Foremost, it has the potential to cause illness in a very large number of people, overwhelming the health care system throughout the nation. A pandemic outbreak could also jeopardize essential community services by causing high levels of absenteeism in critical positions in every workforce. Basic services, such as health care, law enforcement, fire, emergency response, communications, transportation, and utilities could be disrupted during a pandemic. Finally, a pandemic, unlike many other emergency events, will last for months rather than days or weeks, disrupting supply chains for essential items such as food, water, and other essential provisions.

5.2.14 Severe Winter Storm/High Winds

Nature: The climate in California's Central Valley is hot Mediterranean. Summers are hot and dry while winters are cool and damp. A dominating factor in the weather of California is the semi-permanent high-pressure area of the northern Pacific Ocean, sometimes called the Pacific High. This pressure center moves northward in summer, holding storm tracks, originating on easterly winds, well to the north. As a result, California receives little or no precipitation during the summer and early autumn. The time period between mid-autumn to mid-spring comprises the rainy season (roughly October through April). During these months, winter storms may occur. This occurs as the Pacific High decreases in intensity in winter and moves further south, permitting storms to move into and across the State, producing widespread rain at low elevations and snow at high elevations. Occasionally the State's circulation pattern permits a series of storm centers to move into California from the southwest.

Winter storms may produce high winds. Wind strength depends on differences between the existing high- and low-pressure systems and the distances between them. A steeper pressure gradient resulting from a large pressure difference or short distance between systems causes higher winds. Winter storms may also bring snow to higher elevations as well as heavy rains and freezing temperatures.

Location: Higher elevations in the eastern portion of the County can average up to 72 inches of snowfall per year, while middle elevations in the central portion of the County average around 36 inches of snowfall per year (including the Tule River Reservation, the unincorporated areas of the County and areas under the jurisdiction of the TCOE). Low elevations in the western portion of the County receive little or no snowfall.

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The eastern and central parts of the County (limited to the County unincorporated) experience more days per year (31 to 40 days) with high peak gusts than the rest of the County (20 to 30 days). Freezing occurs throughout the County, and occurs more frequently at higher elevations. The Tule River Tribe, TCOE and unincorporated areas of the County all experience at least 31 days per year with a mean temperature of 32°F or below.

History: Severe Winter Storms are characterized by freezing temperatures, snow fall at high elevations and high winds (as flooding was previously captured as a specific hazard, heavy rainfall is not included in the hazard of Severe Winter Storm). The National Climatic Data Center database contains the following severe storm information for the County for the period 2005 to 2016:

- Seventy-five winter storm events since 2005. In most of these storms, snow occurred at elevations of 2,500 feet or higher. In one case, \$1,000,000 of property damage was reported. In another case, one death was reported.
- Thirty-three strong wind events since 2005. Several events damaged property exceeding \$100,000; one even as high as \$500,000. No injuries or fatalities occurred.
- Ninety-five severe freeze events occurred since 2005. One Presidential Declaration occurred in 2007. Prior to that, two additional events resulted in Presidential Declarations (1990-1991 and 1998). These freeze events caused a loss of citrus and seasonal crops throughout the County. Numerous farm workers also lost their jobs due to the damaged crops.⁹
- In January 27, 2008, a severe thunderstorm developed south of Visalia shortly after noon, and spawned a weak tornado that knocked down trees and severely damaged a trailer park. The tornado, rated EF-0 on the Enhanced Fujita Scale had peak winds of 70 mph. Damage was estimated at \$750,000.

Impact of Climate Change: The determination of climate change on severe winter storms and high winds is difficult to quantify. This is in part due to uncertainty of human activity to limit greenhouse gas increase in the atmosphere.

Warming central Pacific Ocean water has the potential to produce more frequent and longer winter storms originating in the intertropical convergence zone (ITCZ). Days on which atmospheric rivers (formed in the ITCZ and a major cause of severe winter storms) reach the West Coast each year could increase by a third this century, if greenhouse gas pollution continues to rise sharply Pacific Northwest National Laboratory researchers concluded after running model simulations.¹⁰ Currently, the West Coast is likely to receive rain or snow from atmospheric rivers between 25 and 40 days each year, the analysis concluded. By century's end, that's expected to rise to between 35 and 55 days annually. Meanwhile, the number of days each year on which the atmospheric rivers bring "extreme" amounts of rain and snow to the region could increase by more than a quarter.

⁹ NOAA 2017

¹⁰ Samson M. Hagos, L. Ruby Leung, Jin-Ho Yoon, Jian Lu, Yang Gao; *A projection of changes in landfalling atmospheric river frequency and extreme precipitation over western North America from the Large Ensemble CESM simulations*; Geophysical Research Letters, February 2016

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Extent: In the County, a severe winter storm can produce high snowfall (up to 60 inches in one day) and wind (peak gusts over 55 mph). High elevation areas may experience over 120 days of freezing temperatures during the year. The 2008 tornado was approximately 50 yards wide and traveled a distance of 2.03 miles. High wind events are characterized by the Beaufort Scale which is depicted in **Figure 5-4** below.

Figure 5-5: Beaufort Scale

#	MPH	Description	Specifications
0	< 1	Calm	Smoke rises vertically.
1	1-3	Light Air	Direction of wind shown by smoke drift but not by wind vanes.
2	4-7	Light Breeze	Wind felt on face; Leaves rustle; Wind vanes moved by wind
3	8-12	Gentle Breeze	Leaves and small twigs in constant motion; Wind extends light flag.
4	13-18	Moderate	Raises dust, loose paper; Small branches moved.
5	19-24	Fresh	Small trees begin to sway; Crested wavelets form on inland waters.
6	25-31	Strong	Large branches in motion; Whistling heard in telephone wires; Umbrellas used with difficulty.
7	32-38	Near Gale	Whole trees in motion; Inconvenience felt walking against the wind.
8	39-46	Gale	Twigs break off trees; Wind generally impedes progress; Mobile homes may shake.
9	47-54	Strong Gale	Slight structural damage occurs; Mobile homes, sheds, roofs, lanais, and RV's suffer minor damage.
10	55-63	Storm	Small trees uprooted; Moderate damage occurs to mobile homes and RV's; Brick and wood frame houses receive minor structural and roof damage; Some signs blown down.
11	64-73	Violent Storm	Moderate sized trees uprooted; Large branches snapped off trees; Chimneys and road signs toppled; Significant mobile home damage; Power lines downed.
12	74-95	Hurricane Category 1	Mobile homes overturned; Large trees and branches downed; Moderate roof damage to wood and brick homes; Minor pier damage.

Probability of Future Events: Based on previous events, the County can expect to experience at least one major winter storm annually. High winds, defined as those that last longer than one hour at greater than 39 mph or for any length of time at greater than 57 mph, occur every one to three years. Freezing temperatures and snowfall occur annually. The mountainous areas in the County will continue to experience over 70 inches of snowfall per year as well as freezing temperatures for over 120 days per year. Therefore, it is highly likely that an event will occur within the calendar year. Events have a one in one-year (a 1/1=100%) chance of occurring.

5.2.15 Terrorism and Cyber Terrorism

Nature: The definition of terrorism by the Federal Bureau of Investigation (FBI) is “the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.” The FBI defines cyber terrorism as the use of computer network tools to shut down critical national infrastructures (e.g., energy, transportation, government operations) or to coerce or intimidate a government or civilian population.

Terrorists typically use one or more of the following types of weapons: chemical, biological, incendiary, radiological, or explosive. In addition to large-scale attacks, a full range of assault styles must be considered, including simple bombings, assassinations with small arms, major bombings, and others. Use of explosive devices remains the weapon of choice for terrorist activity. Related activities include bomb threats which disrupt the normal operations of transit systems, government or corporate facilities. Primary locations likely to be targets include airports, mass transit targets, government facilities, and high population density locations, although so-called “soft targets” such as schools, local entertainment facilities, etc., are at risk. The potential for nuclear, biological or chemical terrorism is also a concern. These types of emergencies would necessitate detailed contingency planning and preparation of emergency responders to protect their communities.

Weapons of mass destruction (WMD) typically used by terrorists are categorized by an acronym that lists the types of materials/weapons: CBRNE stands for chemical, biological, radiological, nuclear, and explosives. BNICE stands for biological, nuclear, incendiary, chemical, and explosives. The nature of each category of weapon is described briefly below:

- **Chemical:** Chemical weapons include blood and choking agents, nerve agents, blister agents, and toxic industrial chemicals. The advantages of using chemical weapons for a terrorist include they are easy to make, readily available, inexpensive, have an immediate effect, and are easily spread. The disadvantages are they require significant quantities for a mass effect, and the production and deployment are potentially hazardous to the terrorist. Some chemical agents are odorless and tasteless and are difficult to detect, while others have distinct odors. They can have an immediate effect (a few seconds to a few minutes) or a delayed effect (several hours to several days). Routes of exposure for chemical weapons are inhalation, ingestion, absorption, and injection. Unlike many of the biological weapons, first responders can take self-protective measures by wearing personal protective equipment, first aid measures and effective medical interventions are available, and chemical agent exposures can be decontaminated and agents neutralized.
- **Biological:** Biological weapons are defined as bacteria, viruses, or toxins used to produce illness or death in people, animals, or plants. The advantages of biological weapons are that they are easy to make, readily available, and relatively inexpensive. The disadvantages include delayed effects and potential deployment hazards to the terrorist. Routes of exposure for biological weapons are inhalation, ingestion, absorption, and injection. Biological agents can be dispersed as airborne particles or aerosols on food items or in water, or through an injection. Terrorists may use biological weapons because the agents are odorless, tasteless, and extremely difficult to detect.

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Because of the significant extent of agriculture in the County and the widespread national distribution and economic impact of County agriculture products, agro-terrorism, a subset of bioterrorism, (defined as the deliberate introduction of an animal or plant disease with the goal of generating fear, causing economic losses, and/or undermining stability) may be a concern. Agriculture has several characteristics that pose unique problems for managing the threat. Agricultural production is geographically disbursed in unsecured environments. Livestock are frequently concentrated in confined locations, and then transported and commingled with other herds. Pest and disease outbreaks can quickly halt economically important exports. Many veterinarians lack experience with foreign animal diseases that are resilient and endemic in other countries.

- **Radiological / Nuclear:** Radioactive or nuclear weapons are typically in the form of a traditional fission device such as an atom bomb, a radiological dispersal device, often called a dirty bomb, or a conventional explosion at a nuclear facility. The advantages of radiological or nuclear weapons are that the materials are available, cause devastating effects and a great psychological impact on the population. The disadvantages include delayed effects, hazardous deployment for the terrorists, and extreme expense – in the millions of dollars for a nuclear weapon. Radiation cannot be detected by human senses. Consequences may include death, severe health risks to the public, damage to the environment, and extraordinary loss of, or damage to, property. The health effects of radiological or nuclear materials include radiation burns, fragmentation wounds, acute radiological poisoning, and long term effects, such as cancers and birth defects.
- **Explosives:** Explosive weapons are most terrorist's weapon of choice. 86% of domestic terrorist incidents involve the use of explosives. Explosives are readily available and have dramatic results, are low risk, require few skills to build and use, are easy to execute, allow for remote attacks, and don't require many people to execute. There are low explosives and high explosives. The effects include blast pressure, both positive and negative, fragmentation, and thermal. There are pipe bombs or bombs that can be easily concealed into a backpack, box, vehicles, or virtually any type of container with numerous trigger mechanisms to set off the bomb. Bombings account for up to 50% of worldwide terrorist attack patterns.
- **Cyber-terrorism:** According to the FBI, cyber terrorism is any "premeditated, politically motivated attack against information, computer systems, computer programs, and data which results in violence against non-combatant targets by sub-national groups or clandestine agents." As nations and critical infrastructure became more dependent on computer networks for their operations, new vulnerabilities are created. A cyber terrorist attack is designed to cause physical violence or extreme financial harm. Possible cyber terrorist targets include the banking industry, military installations, power plants, air traffic control centers, and water systems, but could be against any facility that relies on computers, computer systems and programs for their operations.

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Location: There is a wide range of motivations for terrorist attacks. They can be for or against almost any issue, religious belief, political position, or group of people of one national origin. Because of the tremendous variety of causes supported by terrorists and the wide variety of potential targets, there is no place that is truly safe from terrorism. Primary locations likely to be targets include airports, mass transit, government facilities, and high population density locations, although so-called “soft targets” such as schools, local entertainment facilities, etc., are also at risk. The County is home to power plants, water utilities, agriculture, rail stations, colleges, and chemical manufacturers, all of which could be a target for terrorism. The potential for nuclear, biological or chemical terrorism is also a concern. The entire State is considered at risk for a nuclear event. These types of emergencies would be devastating to any community and necessitate detailed contingency planning and preparation of emergency responders prior to such an attack.

History: The County has not had a terrorist attack.

Extent: As outlined in the 2010 National Security Strategy, there is no greater danger to the U.S. than a terrorist attack with a weapon of mass destruction. Terrorist acts may cause casualties, extensive property damage, fires, flooding, and other subsequent hazards. Incidents generating significant mass casualties make preparedness and the mechanisms for effective response essential. In addition to large-scale attacks, a full range of terrorism tactics must be considered, including simple bombings, chemical or biological incidents, explosions and cyber-attacks, bomb threats, and the use of radiological and nuclear materials. Use of explosive devices remains the weapon of choice for terrorist activity. The possibility exists that a terrorist organization might acquire the capability of creating a small nuclear detonation. A single nuclear detonation in the U.S. would likely produce fallout affecting an area many times greater than that of the blast itself.

The damage caused by a terror attack is dependent on the method of attack. Large bomb attacks could destroy major infrastructure, kill many people and disrupt regional functioning for a significant time. Cyber-terrorism would cause very different types of damage, possibly severely hampering local government operations and local business with no direct injuries or loss of life. In addition to direct physical damage, terrorist attacks breed fear. Even an unsuccessful attempt to attack the region would seriously impact the comfort level of residents and could affect local business.

Terrorism cannot be forecast with any accuracy. Therefore, the potential exists for most, if not all, types of terrorist acts to occur anywhere and at any time. Terrorism can strike not just large cities, but in any community of any size. It is not possible to estimate the probability of a terrorist attack. The approach experts use to prioritize mitigation and preparedness efforts is to identify critical sites and assess the vulnerability of these sites to terrorist attack. Vulnerability of these sites is determined subjectively by considering factors such as visibility (e.g., does the public know this facility exists in this location?), accessibility (e.g., is it easy for the public to access this site?) and occupancy (e.g., is there a potential for mass casualties at this site?).

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Buildings and other structures constructed to resist earthquakes and fires usually have qualities that also limit damage from blasts and resist fire spread and spread of noxious fumes. Efforts to retrofit buildings to resist earthquakes often provide cost-effective opportunities to incorporate measures to mitigate against attacks using bombs, chemical and biological agents.

Probability: While terrorism is a serious concern, there is a low probability of a terrorist event in the County due to its low population density and distance from the larger metropolitan areas of San Francisco and Los Angeles.

5.2.16 Fog

Nature: Fog is defined by the NWS as water droplets suspended in the air at the Earth's surface. Fog is often hazardous when the visibility is reduced to $\frac{1}{4}$ mile or less. Fog can be considered as a cloud that forms at ground level. Similar to clouds, fog is made up of condensed water droplets which are formed as the result of air being cooled to the dew point. The dew point is the temperature to which air must be cooled in order for water vapor in the air to condense to liquid water.

In California's Central Valley, a type of fog known as Tule fog is common. Tule fog is defined by the NWS as "radiation fog¹¹ in the Central Valley of California. It forms during night and morning hours in late fall and early winter months following the first significant rainfall." Thus, Tule fog tends to form at night during California's rainy season, roughly between November 1 and March 31. The fog is formed when cold air from the Sierra Nevada flows into the Central Valley at night and is unable to escape the valley due to the coastal ranges to the west. Higher pressure air from above the mountaintops presses down on the colder, denser air, resulting in the fog.

The NWS notes that Tule fog is a leading cause of weather-related accidental death in California. The fog can last for days or weeks, until it is dispersed by turbulent air. Visibility under Tule fog can be reduced to near zero. Tule fog may also cause a light drizzle. During cold months, this drizzle may freeze, causing conditions to become even more dangerous on roadways.

¹¹ NWS: Radiation fog is a very common type of fog throughout the United States. It is most prevalent during the fall and winter. It forms overnight as the air near the ground cools and stabilizes. When this cooling causes the air to reach saturation, fog will form.

Figure 5-5: Tule fog



History: A number of fog-related accidents have occurred in the County due to the reduction in visibility and slowing of traffic during fog. According to data from the California Highway Patrol, 180 fog-related collisions occurred on Highway 99 in the County between 1997 and 2008, resulting in 4 deaths and 129 persons injured. One of the worst fog-related accidents occurred on November 14, 1998, when a number of vehicles were traveling too fast under poor visibility conditions on Highway 99, approximately two miles southeast of Kingsburg in the County. A series of chain-reaction accidents involved 74 vehicles, including 19 tractor-trailer rigs. Over 132 people were involved in the accident, and there were two fatalities and 51 injuries.

On December 10, 2008, another fog-related accident occurred on Highway 99. Thick fog caused 60 vehicles to collide in a string of accidents near Visalia. The California Highway Patrol indicated that there were more than four separate accidents, involving 56 cars and 4 big rigs. However, no serious injuries occurred. Traffic was diverted for nearly two hours after parts of Highway 99 were closed. Other large scale vehicle accidents due to heavy fog have occurred in the vicinity of the County. On November 3, 2007, heavy fog caused a massive pile-up that included over ten passenger vehicles and nine big rig trucks on Highway 99 between Fowler and Fresno, which is north of the County. There were 2 fatalities and 39 injuries resulted from the crash.

More recently, a medical transport van collided with a big rig just after 9 a.m. on January 28, 2016 at Road 44 and Paige Avenue. Investigators stated the van pulled in front of a big rig truck causing the collision.

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They said the area was extremely foggy at the time. One person died and several others suffered minor injuries requiring transport to local hospitals.

Location: Tule fog is known to occur regularly in the western portion of the County; this includes all cities in the County as well as near the facilities of TCOE. Areas most susceptible in within the County are low elevations, specifically below 200 meters (656 feet).

Extent: Tule fog may occur throughout low elevations within the County. Areas of fog vary from small patches to many square miles. Fog patterns shift rapidly as wind and temperatures vary. Predicting exact locations and density of fog is not feasible.

Probability of Future Events: Tule fog is a continual occurrence in the County and is not expected to cease. As noted above, Tule fog tends to form at night during the rainy season, roughly between November 1 and March 31. It is highly likely a severe weather fog event will occur within the County within the calendar year (a one in one year chance of occurring - $1/1 = 100\%$). History of events is greater than 50% likely per year.

5.3 Risk Assessment

A risk assessment involves evaluating vulnerable assets, describing potential impacts, and estimating losses for each hazard. The intention of a risk assessment is to help the community understand the greatest risks facing the County. The risk assessment defines and quantifies vulnerable populations, buildings, critical facilities, and other assets at risk from hazards, and is based on the best available data and the significance of the hazard. The risk assessment further examines the impact of the identified hazards on the County, determines which areas of the County are most vulnerable to each hazard, and estimates potential losses to County facilities for each hazard.

5.3.1 Hazard Risk Rating

For the 2017 MJLHMP the risk for each hazard was rated using the Calculated Priority Risk Index (CPRI). The CPRI examines four criteria for each hazard (probability, magnitude/severity, warning time, and duration) as seen on **Table 5-12**. For each hazard, an index value is assigned for each CPRI category from 0 to 4 with 0 being the least hazardous and 4 being the most hazardous situation. This value is then assigned a weighting factor and the result is a hazard ranking score, **Table 5-13**.

CPRI Category	Table 5-12: Calculated Priority Risk Index (CPRI)			Assigned Weight
	Degree of Risk Chart			
	Level ID	Description	Index Value	
Probability	Unlikely	Extremely rare with no documented history of occurrences or events. Annual probability of less than 0.001.	1	45%
	Possible	Rare occurrences with at least one documented or anecdotal historic event. Annual probability of	2	

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CPRI Category	Table 5-12: Calculated Priority Risk Index (CPRI)			Assigned Weight
	Degree of Risk Chart			
	Level ID	Description	Index Value	
		between 0.01 and 0.001.		
	Likely	Occasional occurrence with at least two or more documented historic events. Annual probability of between 0.1 and 0.01.	3	
	Highly Likely	Frequent events with a well-documented history of occurrence. Annual probability of greater than 0.1.	4	
Magnitude-Severity	Negligible	Negligible property damages (less than 5% of critical and non-critical facilities and infrastructure). Injuries or illnesses are treatable with first aid and there are no deaths. Negligible quality of life lost. Shut down of critical facilities for less than 24 hours.	1	30%
	Limited	Slight property damages (greater than 5% and less than 25% of critical and non-critical facilities and infrastructure). Injuries and illnesses do not result in permanent disability and there are no deaths. Moderate quality of life lost. Shut down of critical facilities for more than 1 day and less than 1 week.	2	
	Critical	Moderate property damages (greater than 25% and less than 50% of critical and non-critical facilities and infrastructures). Injuries or illnesses result in permanent disability and at least one death. Shut down of critical facilities for more than 1 week and less than 1 month.	3	
	Catastrophic	Severe property damages (greater than 50% of critical and non-critical facilities and infrastructure). Injuries or illnesses result in permanent disability and multiple deaths. Shut down of critical facilities for more than 1 month.	4	
Warning Time	< than 6 hours	Population receives less than 6 hours of warning.	4	15%
	6 to 12 hours	Population receives between 6-12 hours of warning.	3	
	12 to 24 hours	Population receives between 12-24 hours of warning.	2	
	> than 24 hours	Population receives greater than 24 hours of warning.	1	
Duration	< than 6 hours	Disaster event will last less than 6 hours.	1	10%
	6 to24 hours	Disaster event will last between 6-24 hours.	2	
	24 hrs. to 1 week	Disaster event will last between 24 hours and 1 week.	3	
	> than 1 week	Disaster event will last more than 1 week.	4	

Table 5-13: CPRI Summary									
Hazard	Probability	Weighted 45%	Magnitude Severity	Weighted 30%	Warning Time	Weighted 15%	Duration	Weighted 10%	CPRI Ranking
Civil Disturbance	1	.45	3	.6	2	.3	1	.1	1.45
Climate Change	4	1.8	3	.9	1	.15	4	.4	3.25
Dam Failure	1	.45	4	1.2	4	.6	4	.4	2.65
Drought	3	1.35	2	.6	1	.15	4	.4	2.40
Earthquake	3	1.35	2	.6	4	.6	4	.4	2.95
Energy Emergency	1	.45	2	.6	4	.6	2	.2	1.85
Extreme Heat	4	1.8	3	.9	2	.3	3	.3	3.30
Fire	4	1.8	2	.6	4	.6	3	.3	3.30
Flood	4	1.8	3	.9	2	.3	4	.4	3.40
HAZMAT	4	1.8	1	.3	4	.6	2	.2	2.90
Landslides/Mudslides/Debris Flows	2	.9	3	.9	4	.6	1	.2	2.60
Levee Failure	1	.45	2	.6	2	.3	3	.3	1.64
Pandemic	2	.9	4	1.2	1	.15	4	.40	2.65
Severe Winter Storm/High Winds	3	1.35	2	.6	1	.15	3	.3	2.40
Terrorism	1	.45	3	.3	4	.6	1	.1	1.45
Fog	4	1.8	3	.9	3	.45	2	.2	3.35

CPRI Hazard Risk Scoring

Risk Level	Severe	High	Moderate	Low
Rank Score	4	3 – 3.9	2 – 2.9	1 – 1.9

5.3.2 Populations and Businesses at Risk

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the County by evaluating the inventory of existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the City was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State—January 1, 2016/2017. The population is estimated to be 460,437 in an area of 4,839 square miles. The estimate is 147,518 residential units with a 2016 median value of \$169,600. The most common employment sectors for those who live in the County are agriculture, retail trade, manufacturing, government and manufacturing.

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Economic Risks

The County's economy is based on agriculture, especially dairy production, grapes, olives, cotton, citrus and nursery products. The area is regarded as one of the most productive agricultural regions in the nation. Livestock is also a significant element of the economy.

The dairy industry, with sales of milk products, brings in the most revenue for the county, typically more than \$1 billion a year annually. Oranges, grapes, and cattle-related commodities also earn hundreds of millions of dollars annually. In 2001, Tulare became the most productive county in the U.S. in terms of agricultural revenues, at US \$3.5 billion annually.

The greatest vulnerability to the County's economy is hazards that affect agricultural production. While the economic impacts of any single, specific, future incident are impossible to know, climate change, dam inundation, drought and animal or plant sickness caused by vector borne disease have the potential to result in billions of dollars of economics losses.

Top employers

Agriculture is the top employer in the County with nearly 20 percent of the work force engaged in food production or other farm related jobs. The largest employers are listed below:

County of Tulare	4,320
Porterville Developmental Center	3,000
Kaweah Delta Medical Center	2,000
Ruiz Foods	1,800
Wal-Mart	1,692
College of the Sequoias	1,160
Cigna	900
Jostens	720
Land O'Lakes	600
Monrovia Nursery	600

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table 5-13** used the best data currently available to produce an understanding of potential losses. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

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Table 5-13: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Dam Inundation	<p><u>Impacts:</u> Dam inundation is a particularly extensive hazard to the City. Both Terminus and Success Dams may inundate Tulare resulting in an overall potential inundation area of the entire City.</p> <p><u>Costs:</u> A rapid failure of Success or Terminus Dam would result in catastrophic loss of life and injury, and property loss. Map B-6 depicts the potential footprint for dam inundation. Specifics of the inundation curves are contained in the Dam Emergency Action Plans which are a limited distribution documents. The potential injury and death from a short notice dam failure could be in the 10,000s. Total losses within the Visalia jurisdiction could exceed \$6,000,000,000.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its needs. During prolonged draughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from draught to the County and its communities are difficult to quantify and are dependent upon draught duration and severity. In addition to increased costs for water, prolonged draught may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Earthquake	<p><u>Impacts:</u> The County is not in a high hazard area for earthquakes. Impacts from previous earthquakes have been minimal with little damage of injuries.</p> <p><u>Costs:</u> Potential direct costs from earthquakes are likely to be small. Second order affects such as supporting displaced populations from more vulnerable regions, disruption to fuel products and loss of ability to ship agricultural products could result in substantial economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the County's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to 94hermos-regulate, causing heat stress and sometimes leading to death.</p>

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	<p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Fire	<p><u>Impacts:</u> Structures near the urban/wildland interface are susceptible to wildland fire. Impacts on low density communities are limited. A map of wildland fire vulnerabilities is contained in Figure B-4.</p> <p><u>Costs:</u> Costs to the County will include emergency response and damage to private property. Total costs are likely to be less than \$50,000,000.</p>
Flood	<p><u>Impacts:</u> Flooding occurs in the County during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding. A map of potential flooding vulnerabilities is contained in Figure B-5.</p> <p><u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$2,000,000,000.</p>
Fog	<p><u>Impacts:</u> The NWS notes that Tule fog is a leading cause of weather-related accidental death in California. The fog can last for days or weeks, until it is dispersed by turbulent air. Visibility under Tule fog can be reduced to near zero. Tule fog may also cause a light drizzle. During cold months, this drizzle may freeze, causing conditions to become even more dangerous on roadways.</p> <p><u>Costs:</u> Costs associated with fog are difficult to quantify. While most of the County's infrastructure is subject to fog, damage seldom occurs. Vehicle accidents resulting from fog may result in injury and death, and property damage. Economic activity may be reduced slightly due to fog. Total costs are likely to be less than \$10,000,000 per year.</p>
Landslides, Mudslides and Debris Flows	<p><u>Impacts:</u> No major landslides, mudslides or debris flows have been recorded in the populated portions of the County.</p> <p><u>Costs:</u> County owned roads at higher elevations are susceptible to landslides. Costs under \$1,000,000 could result from damage to or debris on County roads.</p>
Pandemic and Vector Born Disease	<p><u>Impacts:</u> A novel strain of influenza has the potential to cause illness in a very large number of people, overwhelming the health care system throughout the nation. A pandemic outbreak could also jeopardize essential community services by causing high levels of absenteeism in critical positions in every workforce. Basic services, such as health care, law enforcement, fire, emergency response, communications, transportation, and utilities could be disrupted during a pandemic. Finally, a pandemic, unlike many other emergency events, will last for months rather than days or weeks, disrupting supply chains for essential items such as food, water, and other essential provisions.</p> <p><u>Costs:</u> The human costs associated with a pandemic may be catastrophic. Up to 30 percent of the County's population may become ill with a large portion requiring hospitalization. Fatalities may exceed 1,000. The economic costs could easily be more than \$1,000,000,000 due to decreased commercial activity such as business shutdowns, loss of employee workdays and social isolation practices. Agriculture losses would be a large part of the economic loss due to lack of farm workers to sow and harvest crops, and manufacture food products. Significant disruptions to normal activity in all communities is a likely outcome.</p>
Severe Winter Storms/High Winds	<p><u>Impacts:</u> Winter storms and high winds typically occur at higher elevation which are sparsely populated. The Tule River Tribe is the community most impacted by this hazard. Property damage is slight in most cases. Road closures may occur with resulting needs for snow removal.</p> <p><u>Costs:</u> Financial costs due to winter storms and high winds are likely to be low for County communities. Most of the roads at higher elevations are the responsibility of Caltrans for snow removal. Short term disruption to traffic may cause short duration economic disruptions to small hill and mountain towns. Costs per year are likely to be less than \$5,000,000.</p>

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Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Visalia:

- Climate Change
- Dam Inundation
- Drought
- Extreme heat
- Flood

These hazards which may impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, these are hazards that represent vulnerabilities to infrastructure.

6. Mitigation & Adaptation Strategy

The Federal regulations require local mitigation plans to identify goals for reducing long-term vulnerabilities to the identified hazards in the planning area (Section 201.6(c)(3)(i)).

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's "existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools."

Elements

C1. Does the plan document the jurisdiction's existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3).

C2. Does the Plan address the jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii).

C3. Does the Plan include goals to reduce or avoid long-term vulnerabilities to identified hazards? 44 CFR § 201.6(c)(3)(i).

C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for the jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? See 44 CFR § 201.6(c)(3)(ii).

C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost-benefit review), implemented, and administered by the jurisdiction? 44 CFR § 201.6(c)(3)(iii).

C6. Does the plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate?

Source: FEMA, *Local Mitigation Planning Handbook Review Tool*, March 2013.

A hazard mitigation plan's primary focus is the mitigation strategy. It represents the efforts selected by the County to reduce or prevent losses resulting from the hazards identified in the risk assessment. The strategy includes mitigation actions and projects to address the risk and vulnerabilities discovered in the risk assessment. The mitigation strategy consists of the following steps:

- Identify and profile hazards and risk within the County.
- Identify projects and activities that can prevent or mitigate damage and injury to the population and buildings.
- Develop a mitigation strategy to implement the mitigation actions.
- Develop an action plan to prioritize, implement, and administer the mitigation actions.
- Implement the MJLHMP mitigation action plan.

A capability assessment was conducted of County and participating jurisdictions' authorities, policies, programs, and resources. From the assessment, goals and mitigation actions were developed. The planning team also developed a plan to prioritize, implement, and administer the mitigation actions to

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reduce risk to existing buildings and new development. This section also includes information regarding County's implementation of and continued participation in the National Flood Insurance Program (NFIP).

6.1 Introduction, Mission Statement

The 2017 MJLHMP represents the County's commitment to create a safer, more resilient community by taking actions to reduce risk and by committing resources to lessen the effects of hazards on the people and property of the County.

6.2 Mitigation Goals and Actions

Mitigation goals are guidelines that represent what the community wants to accomplish through the mitigation plan. Goals are broad statements that represent a long-term, community-wide vision. The planning team reviewed example goals and objectives, and determined which goals best met the County's objectives for mitigation. In addition to the overarching hazard mitigation goals, the County worked with CAL FIRE to develop the strategies in alignment with the County General Plan Health and Safety Element. The goals align with the hazards in the 2016 General Plan and reflect input provided by stakeholders and the public. **Table 6-1** lists the goals for the 2017 MJLHMP.

Table 6-1 Hazard Mitigation Goals
Goal 1: Protect life, property, and reduce potential injuries from natural, technological, and human-caused hazards.
Goal 2: Improve public understanding, support and need for hazard mitigation measures.
Goal 3: Promote disaster resistance for the County's natural, existing, and future built environment.
Goal 4: Strengthen partnerships and collaboration to implement hazard mitigation activities.
Goal 5: Enhance the County's ability to effectively and immediately respond to disasters.

Many of the County's mitigation strategies from the 2011 HMP are still relevant to this update. **Table 6-2** contains an updated set of potential future County-specific mitigation actions. Mitigation actions were derived from numerous sources including the General Plan, the Climate Action Plan and input from the public and stakeholders. The County shall strive to implement these mitigation actions as determined to be economically and technically feasible under current regulations and fiscal constraints. Applicable hazards codes are:

CD – Civil Disturbance
CC – Climate Change
DF – Dam Failure
EQ – Earthquake
EN – Energy Emergency
EH – Extreme Heat
FR – Fire
FL – Flood
FG – Fog

HZ – Hazardous Materials
LS – Landslides/Mudslides/Debris Flows
LF – Levee Failure
PD – Pandemics and Vector Borne Disease
SW – Storms and High Winds
TR – Terrorism
Mit. – Mitigation
Prep. – Preparedness
Res. – Response

Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
1	1-2	Continue to integrate the Tulare County MJLHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
1	1-3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
1	1-4	Continue to designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
1	1-5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
1	1-6	Continue to seek grant funding for the rehabilitation of deteriorated and dilapidated structures and provide available information regarding housing programs and other public services including the identification of existing nonconforming building construction specific to building codes that apply in the Very High Fire Hazard Safety Zones.	FR	Mit.
1	1-7	Continue to evaluate areas to determine levels of earthquake risk.	EQ	Mit.
1	1-8	Continue to discourage construction and grading on slopes in excess of 30%	EQ, FR, LS	Mit.
1	1-9	Request Federal and State financial assistance to implement corrective seismic safety measures required for existing County buildings and structures.	EQ	Mit

Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-10	Do not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resource code, Chapter 7.5) unless the specific provision of the Act and Title 14 of the California Code of Regulations have been satisfied.	EQ	Mit.
1	1-11	Discourage the location of new schools in areas designated for agriculture, unless the School District agrees to the construction and maintenance of all necessary infrastructure impacted by the project.	All	Mit.
1	1-12	Encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste, and solar or wind farms.	CC, DR, EH, EN	Mit.
1	1-13	Continue to require buffer areas between development projects and significant watercourses, riparian vegetation, wetlands, and other sensitive habitats and natural communities. These buffers should be sufficient to assure the continued existence of the waterways and riparian habitat in their natural state.	FL	Mit.
1	1-14	Continue to ensure that development in high or very high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
1	1-15	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or state responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.

Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-16	Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.	FR	Mit.
1	1-17	Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values. Plans should address protection of natural resource financial values, establishment of fire resilient natural resources, protection of watershed qualities, and protection of endangered species habitats. Actions should consider prescribed burning, fuel breaks, and vegetation thinning and removal.	FR	Mit.
1	1-18	Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helispots.	FR	Mit.
1	1-19	Incorporate native species habitat needs as part of long term fire protection and fire restoration plans.	FR	Mit.
1	1-20	Establish fire defense strategies (such as fire ignition resistant areas) that provide adequate fire protection without dependency on fire resources (both air and ground) and could serve as safety zones for the public or emergency support personnel.	FR	Mit.
1	1-21	Develop dead tree removal projects that are actionable based on available resources, rules, regulatory approvals and available funding.	FR	Mit.
1	1-22	Create an inventory of levees and their conditions in Tulare County.	FL, LF	Mit.
1	1-23	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.

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Table 6-2: County-Specific Actions and Applicable Hazards				
Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-24	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	
1	1-25	Wherever practical reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building higher bridges across the area that experiences regular flooding.	FL	Mit.
1	1-26	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	FL, DF	Mit.
1	1-27	Increase participation in the NFIP by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
1	1-28	Provide flood protection for the County's Juvenile Detention Facility and Records Storage Facility located north of Avenue 368.	FL	Mit.
1	1-29	Construct a new 24-inch culvert pipe with a canal gate from Sontag Ditch on the south side of SR 201 to daylight into the Stone Corral Ditch on the east side of Sontag Ditch. The purpose of this project is intended to direct high flows from Sontag Ditch to the Stone Corral Ditch during heavy rain events. The diverted water will flow into Stone Corral Irrigation District's detention basin located approximately two miles to the south, just north of Cottonwood Creek, therefore, alleviating flooding in the Seville area.	FL, DR	Mit.
1	1-30	Complete the Yettem Button ditch project by obtaining flood easement rights north of the community of Yettem adjacent to the Button Ditch. This will provide comparable flood protection with the added benefit of groundwater recharge.	FL, DR	Mit.
1	1-31	Contract and proceed with preparation of the Flood Control Master Plan Update for the Fresno-Tulare Unit.	FL, DF	Mit.

Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-32	Continue to conduct annual retention basin maintenance that includes weed abatement, fence repair, and drainage inlet flushing.	FL	Mit.
1	1-33	Inspect and cycle County flood control pumps annually to ensure functionality. Clear shrubs and debris in proximity to the basins and channels of the pumps to minimize potential blockage during operation. If required, contract with local pump repair contractors to service the equipment.	FL	Mit.
1	1-34	Regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following: 1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted. 2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible. 3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.	FL	Mit.
1	1-35	Continue to participate in the NFIP.	FL	Mit.
1	1-36	Review projects for their exposure to inundation due to dam failure. If a project presents a direct threat to human life, appropriate mitigation measures shall be taken, including restriction of development in the subject area.	FL, DR, DF	Mit.
1	1-37	Ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required to satisfy Federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.	HZ	Mit.

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Table 6-2: County-Specific Actions and Applicable Hazards				
Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-38	Continue to cooperate with the California Highway Patrol to establish procedures for the movement of hazardous wastes and explosives within the County.	HZ	Mit.
1	1-39	Implement post-fire debris flow hill-slope and channel treatments, such as seeding, mulching, check dams, and debris racks, as needed.	LS	Mit.
1	1-40	Manage vegetation in areas within and adjacent to rights of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.	WS	Mit.
1	1-41	Develop free annual tree chipping and tree pick-up days that encourages residents living in wind hazard areas to manage trees and shrubs at risk of falling on nearby structures.	WS	Mit.
1	1-42	Bolt down the roofs of critical facilities in wind gust hazard areas in order to prevent wind damage.	WS	Mit
1	1-43	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
1	1-44	Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
1	1-45	Design and construct a permanent solution to flooding east of Friant Kern Canal in Strathmore.	FL	Mit.
1	1-46	Design and construct a permanent solution to protect M137(Reservation Road) from flooding.	FL	Mit.

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Table 6-2: County-Specific Actions and Applicable Hazards				
Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-47	Restore Cottonwood creek back to natural flow path, protect Road 108 and provide additional impoundment.	FL	Mit.
1	1-48	Conduct a hydrological survey/study to investigate potential flooding issues due to ground subsidence caused by use of groundwater without replenishment. Create a data base for future land planning use.	CC, FL	Mit.
1	1-49	Identify and implement strategies that result in promoting stormwater management through groundwater recharge projects.	CC, FL	Mit.
1	1-50	Develop a program to identify, prioritize, fund and develop designs to replace functionally obsolete bridges.	FL	Mit.
1	1-51	Develop a program to identify, prioritize, fund and develop designs to replace structurally obsolete bridges.	FL	Mit.
1	1-52	Design and construct a bridge structure on Road 184 (btw A24-A32) on the White River.	FL	Mit.
1	1-53	Design and construct a bridge structure on R156 (btw A32-A40) on White River.	FL	Mit.
1	1-54	Design and construct a bridge structure on R88 (btw A56-A84) on Deer Creek.	FL	Mit.
1	1-55	Identify, prioritize, fund and develop permanent solutions for low water crossings throughout the County.	FL	Mit.
1	1-56	Engage the entire community and develop a County-wide drought response plan to respond to period of prolonged dry weather.	CC, DR, FR	Prep.
1	1-57	Identify potential problem areas, and develop and implement a plan to address potential groundwater contamination issues in small water systems.	HZ	Mit.
1	1-58	Develop transportation plans and projects that support providing adequate vehicular access to the southwest corner of the County after High Speed Rail is constructed.	FL	Mit.

Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-59	Develop and implement a program to address potential channel capacity loss, potential flooding issues, and bridge clearance issues resulting from subsidence on the Friant Kern Canal	FL	Mit.
1	1-60	Seismically retrofit or replace County and local ramps and bridges that are categorized as structurally deficient by Caltrans, are located in high ground shaking areas, and/or are necessary for first responders to use during and/or immediate after a disaster or emergency.	EQ	Mit.
1	1-61	Identify at risk structures and reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
1	1-62	Manage vegetation in areas within and adjacent to rights-of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.	WS	Mit.
1	1-63	Implement a fuel reduction program, such as the collection and disposal of dead fuel, within open spaces and around critical facilities and residential structures located within a high and very high wildfire zones.	FR	Mit.
1	1-64	Develop a Debris Management Plan.	FL, FR, WS	Mit.
1	1-65	Develop a County-wide Storm Water Resources Plan.	DR, CC, FL	Mit.
1	1-66	Develop and implement programs and policies to protect and enhance surface water and groundwater resources critical to human consumption.	DR, CC, FL	Mit.
1	1-67	Develop groundwater recharge projects to promote groundwater sustainability, and mitigate and recover from the effects of prolonged drought.	CC, DR, FL	Mit

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Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
2	2-1	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR, DF	Mit.
2	2-2	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
2	2-3	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, public health and other public education efforts.	CD, TR, PD	Mit.
2	2-4	Develop and implement a County-wide program to promote water use understanding and water conservation.	CC	Mit.
3	3-1	Conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.	CC, FL, HZ, LS,	Mit.
3	3-2	Maintain agriculture as the primary land use in the valley region of the County, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's real contribution to the conservation of open space and natural resources.	CC	Mit.
3	3-3	Consider developing an Agricultural Conservation Easement Program to help protect and preserve agricultural lands (including Important Farmlands), as defined in the General Plan Safety Element. This program may require payment of an in-lieu fee sufficient to purchase a farmland conservation easement, farmland deed restriction, or other farmland conservation mechanism as a condition of approval for conservation of important agricultural land to non-agricultural use.	CC	Mit.
3	3-4	Seek to protect and enhance surface water and groundwater resources critical to agriculture.	CC	Mit.

Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
3	3-5	Identify opportunities for infill development projects near employment areas within all unincorporated communities to reduce vehicle trips.	CC	Mit.
3	3-6	Encourage high-density residential development (greater than 14 dwelling units per gross acre) to locate along collector roadways and transit routes, and near public facilities (e.g., schools, parks), shopping, recreation, and entertainment where economically feasible.	CC	Mit.
3	3-7	Review Leadership in Energy and Environmental Design (LEED) and LEED-neighborhood development certification requirements and develop an implementation program.	CC, EN	Mit.
3	3-8	Encourage the location of ancillary employee services (including, but not limited to, child care, restaurants, banking facilities, convenience markets) near major employment centers for the purpose of reducing midday vehicle trips.	CC	Mit.
3	3-9	Encourage new streets to be designed and constructed to not only accommodate traffic, but also serve as comfortable pedestrian and cyclist environments. These should include, but not be limited to: <ul style="list-style-type: none"> • Street tree planting adjacent to curbs and between the street and sidewalk to provide a buffer between pedestrians and automobiles, where appropriate • Minimize curb cuts along streets • Sidewalks on both sides of streets, where feasible • Bike lanes and walking paths, where feasible on collectors and arterials 	CC	Mit.
3	3-10	Work with school districts and land developers to locate school sites consistent with current and future land uses. The County shall also encourage siting new schools near the residential areas that they serve and with access to safe pedestrian paths to schools.	CC	Mit.
3	3-11	Work to comprehensively study methods of transportation, which may contribute to a reduction in air pollution in Tulare County.	CC	Mit.

Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
3	3-12	Encourage all new development, including rehabilitation, renovation, and redevelopment, to incorporate energy conservation and green building practices to maximum extent feasible. Such practices include building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.	CC	Mit
4	4-1	Coordinate with cities to develop cohesive fire safety plans with overlapping coverage.	FR	Mit.
4	4-2	Work with local and Federal agencies to support efforts to reduce fuel related hazards on public lands.	FR	Mit.
4	4-3	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
4	4-4	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
4	4-5	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
4	4-6	Increase participation in the National Flood Insurance Program (NFIP) by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
5	5-1	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR, CD	Mit.

Table 6-2: County-Specific Actions and Applicable Hazards

Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
5	5-2	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.	All	Mit.
5	5-3	In approving new facilities, such as nursing homes, housing for the elderly and other housing for the mentally and physically infirm, to the extent possible, ensure that such facilities are located within reasonable distance of fire and law enforcement stations	FR	Mit.
5	5-4	Expand the Street Names and House Numbering Ordinance to all areas of the County, including private roads, for emergency 911 purposes.	All	Mit.

6.3 Mitigation Action Plan

Mitigation actions are specific activities or projects that serve to meet the goals that the community has identified. Mitigation actions and projects are more specific than goals or objectives, and often include a mechanism, such as an assigned timeframe, to measure the success and ensure the actions are accomplished. The planning team conducted a review of the mitigation actions and strategies from the 2011 HMP. With information from the risk analysis, capability assessment, and status of the actions implemented since the 2011 HMP, the planning team integrated outstanding action items with other County planning efforts to develop new mitigation actions and projects to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure. Current mitigation projects identified by the County are included in **Table 6-3**. A complete list of mitigation actions for all jurisdictions is included in individual jurisdiction annexes.

The requirements for prioritization of mitigation actions, as provided in the federal regulations implementing the Stafford Act as amended by DMA 2000, are described below.

FEMA REGULATION CHECKLIST: MITIGATION STRATEGY; PLAN REVIEW AND REVISION

Implementation of Mitigation Actions

44 CFR § 201.6(c)(3)(iii): The mitigation strategy section shall include “an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction.

Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.”

Element

C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost-benefit review), implemented, and administered by the jurisdiction? 44 CFR § 201.6(c)(3)(iii)

Plan Review and Revision

44 CFR § 201.6(d)(3): “A local jurisdiction must review and revise its plan to reflect...changes in priorities...”

Based on these criteria, the County prioritized potential mitigation projects and included them in the action plan discussed below in **Table 6-3**. The mitigation action plan developed by the planning team includes the action items that the County intends to implement during the next five years, assuming funding availability. The action plan includes the implementing department, an estimate of the timeline for implementation, and potential funding sources.

The planning team does not presume the expertise to prescribe which projects will be implemented. The prioritization of projects in the MJLHMP is a means to provide a basis for implementing the mitigation strategies, but all new mitigation actions and projects will be formally prioritized and selected by the implementing department. This will accommodate the project funding, schedule of the department, staff requirements, and ability to integrate the new project into existing and ongoing projects. Departments will take into account the funding source, the cost effectiveness of the project, alternative projects, the compatibility of the new project with ongoing projects, the extent to which the project addresses the risks assessed in Section 3, and the potential of economic and social damage.

Mitigation activities identified by the County are potentially applicable for all the jurisdictions within the County. Individual, detailed jurisdiction hazard mitigation action tables are included in **Annexes A** through **I**.

Prioritization

To assist with implementing the Mitigation Action Plan, the planning team used the following ranking process to provide a method to prioritize the projects for the Mitigation Action Plan. Designations of High, Medium, and Low priorities have been assigned to each action item using the following criteria:

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- | | |
|------------------|--|
| Does the action: | <ul style="list-style-type: none">• Solve the problem?• Address vulnerability assessment?• Reduce the exposure or vulnerability to the highest priority hazard?• Address multiple hazards?• Offer benefits that equal or exceed costs?• Implement a goal, policy, or project identified in the General Plan or Capital Improvement Plan? |
| Can the action: | <ul style="list-style-type: none">• Be implemented with existing funds?• Be implemented by existing State or Federal grant programs?• Be completed within the five-year life cycle of the MJLHMP? |
| Will the action: | <ul style="list-style-type: none">• Be implemented with currently available technologies?• Be accepted by the community?• Be supported by community leaders?• Adversely affect segments of the population or neighborhoods?• Require a change in local ordinances or zoning laws?• Result in positive or neutral impact on the environment?• Comply with all local, State, and Federal environmental laws and regulations? |
| Is there: | <ul style="list-style-type: none">• Sufficient staffing to undertake the project?• Existing authority to undertake the project? |

Each positive response is equal to one point. Answers to the criteria above determined the priority according to the following scale:

1–6 = Low priority

7–12 = Medium priority

13–18 = High priority

When direct benefits or grants were not available, indirect costs were analyzed through using the social, technical, administrative, political, legal, economic and environmental (STAPLEE) benefit method. **Appendix F** contains analysis of each of the mitigation activities based upon the STAPLEE method.

Benefit-Cost Analysis

Conducting benefit/cost analysis for a mitigation activity can assist the County in determining whether a project is worth undertaking now in order to avoid disaster related damages later. Cost-effectiveness analysis evaluates how to best spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating hazards can provide decision makers with an understanding of the potential benefits and costs of an activity as well as a basis for comparing alternative projects.

Funding

The funds required to implement the mitigation action plan will come from a variety of sources including: Federal Hazard Mitigation Grants, fares, bonds, fees and assessments, and others. Some projects are (or will be) included in capital improvement budgets, while some, especially ongoing projects, are included in department operating budgets.

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Prior to beginning a project or when Federal funding is involved, the implementing department will use a FEMA approved benefit/cost analysis approach to identify the actual costs and benefits of implementing these mitigation actions. For non-structural projects, implementing departments will use other appropriate methods to weigh the costs and benefits of each action item, and then develop a prioritized list.

Implementation

Mitigation projects were assigned one of three categories as a tentative schedule for implementation: short-range, mid-range, and long-range. Implementation of short-range projects will typically begin within the next three years. Mid-range projects will require some planning and likely require funding beyond what is currently allocated to the jurisdictions' general funds. Projects in the mid-range category will generally begin implementation in the next three to five years. Long range projects will require great planning and funding, and will generally begin implementation within five years and beyond. Continuing actions are those from the previous plan that are ongoing.

Table 6-3: County Hazard Mitigation Actions Implementation					
Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-1	RMA	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	Medium	Short	General Fund
1-2	RMA, OES	Continue to Integrate the Tulare County MJLHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	High	Short	General Fund
1-3	RMA	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	High	Continuing	N/A
1-4	RMA	Continue to designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	High	Continuing	N/A

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-5	RMA	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	High	Continuing	N/A
1-6	RMA	Continue to seek grant funding for the rehabilitation of deteriorated and dilapidated structures and provide available information regarding housing programs and other public services including the identification of existing nonconforming building construction specific to building codes that apply in the Very High Fire Hazard Safety Zones.	High	Continuing	N/A
1-7	RMA	Continue to evaluate areas to determine levels of earthquake risk.	Medium	Continuing	General Fund
1-8	RMA	Continue to discourage construction and grading on slopes in excess of 30%	High	Continuing	N/A
1-9	RMA	Request Federal and State financial assistance to implement corrective seismic safety measures required for existing County buildings and structures.	Medium	Continuing	N/A
1-10	RMA	Do not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resource code, Chapter 7.5) unless the specific provision of the Act and Title 14 of the California Code of Regulations have been satisfied.	Medium	Continuing	N/A
1-11	RMA, TCOE	Discourage the location of new schools in areas designated for agriculture, unless the School District agrees to the construction and maintenance of all necessary infrastructure impacted by the project.	High	Continuing	N/A

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-12	RMA, Ag	Encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste, and solar or wind farms.	High	Continuing	N/A
1-13	RMA	Continue to require buffer areas between development projects and significant watercourses, riparian vegetation, wetlands, and other sensitive habitats and natural communities. These buffers should be sufficient to assure the continued existence of the waterways and riparian habitat in their natural state.	High	Continuing	N/A
1-14	RMA, Fire	Continue to ensure that development in high or very high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	High	Continuing	N/A
1-15	RMA, Fire	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or state responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	Med	Short	General Fund
1-16	RMA, Fire	Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.	High	Short	General Fund

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-17	RMA, Fire	Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values. Plans should address protection of natural resource financial values, establishment of fire resilient natural resources, protection of watershed qualities, and protection of endangered species habitats. Actions should consider prescribed burning, fuel breaks, and vegetation thinning and removal.	High	Short	General Fund, HMPG
1-18	Fire	Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helispots.	High	Short	General Fund, Cal Fire
1-19	RMA, Fire	Incorporate native species habitat needs as part of long term fire protection and fire restoration plans.	High	Continuing	General Fund
1-20	Fire	Establish fire defense strategies (such as fire ignition resistant areas) that provide adequate fire protection without dependency on fire resources (both air and ground) and could serve as safety zones for the public or emergency support personnel.	Medium	Short	General Fund
1-21	RMA, Fire	Develop dead tree removal projects that are actionable based on available resources, rules, regulatory approvals and available funding.	Medium	Short	General Fund, State Grant
1-22	RMA	Create a database that accounts for all levees in Tulare County and their condition.	Medium	Short	General Fund
1-23	RMA	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	Low	Long	General Fund
1-24	RMA	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	Medium	Long	General Fund

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-25	RMA	Wherever practical reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building higher bridges across the area that experiences regular flooding.	High	Short	General Fund
1-26	RMA	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	High	Short	N/A
1-27	RMA	Increase participation in the NFIP by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	Med	Short	N/A
1-28	RMA	Provide flood protection for the County's Juvenile Detention Facility and Records Storage Facility located north of Avenue 368.	High	Short	General Fund, HMPG
1-29	RMA	Construct a new 24-inch culvert pipe with a canal gate from Sontag Ditch on the south side of SR 201 to daylight into the Stone Corral Ditch on the east side of Sontag Ditch. The purpose of this project is intended to direct high flows from Sontag Ditch to the Stone Corral Ditch during heavy rain events. The diverted water will flow into Stone Corral Irrigation District's detention basin located approximately two miles to the south, just north of Cottonwood Creek, therefore, alleviating flooding in the Seville area.	High	Short	General Fund, HMPG, Flood control fund
1-30	RMA	Complete the Yettem Button ditch project by obtaining flood easement rights north of the community of Yettem adjacent to the Button Ditch. This will provide comparable flood protection with the added benefit of groundwater recharge.	High	Short	General Fund, HMPG, Flood control fund
1-31	RMA	Contract and proceed with preparation of the Flood Control Master Plan Update for the Fresno-Tulare Unit.	Med	Short	General Fund

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-32	RMA	Continue to conduct annual retention basin maintenance that includes weed abatement, fence repair, and drainage inlet flushing.	High	Short	General Fund
1-33	RMA	Inspect and cycle County flood control pumps annually to ensure functionality. Clear shrubs and debris in proximity to the basins and channels of the pumps to minimize potential blockage during operation. If required, contract with local pump repair contractors to service the equipment.	High	Short	General Fund
1-34	RMA	Regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following: 1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted. 2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible. 3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.	High	Continuing	N/A
1-35	RMA	Continue to participate in the NFIP.	High	Continuing	N/A
1-36	RMA	Review projects for their exposure to inundation due to dam failure. If a project presents a direct threat to human life, appropriate mitigation measures shall be taken, including restriction of development in the subject area.	Med.	Continuing	General Fund

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-37	RMA	Ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required to satisfy Federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.	High	Continuing	N/A
1-38	Sheriff, HHSA Env. Health	Continue to cooperate with the California Highway Patrol to establish procedures for the movement of hazardous wastes and explosives within the County.	High	Continuing	General Fund
1-39	RMA	Implement post-fire debris flow hill-slope and channel treatments, such as seeding, mulching, check dams, and debris racks, as needed.	High	Short	General Fund, Grants
1-40	RMA	Manage vegetation in areas within and adjacent to rights of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.	Medium	Continuing	General Fund
1-41	RMA	Develop a free annual tree chipping and tree pick-up day that encourages residents living in wind hazard areas to manage trees and shrubs at risk of falling on nearby structures.	Medium	Short	General Fund
1-42	All	Bolt down the roofs of critical facilities in wind gust hazard areas in order to prevent wind damage.	Medium	Short	General Fund
1-43	OES	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/ transportation, mass care and shelter, and animal evacuation and sheltering.	High	Continuing	General Fund, Grants

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-44	RMA	Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	High	Continuing	General Fund, Grants
1-45	RMA	Design and construct a permanent solution to flooding east of Friant Kern Canal in Strathmore	High	Short	General Fund, Grants
1-46	RMA	Design and construct a permanent solution to protect M137 (Reservation Road) from flooding	High	Short	General Fund, Grants
1-47	RMA	Restore Cottonwood creek back to natural flow path, protect Road 108 and provide additional impoundment	High	Short	General Fund, Grants
1-48	RMA	Conduct a hydrological survey/study to investigate potential flooding issues due to ground subsidence caused by use of groundwater without replenishment. Create a data base for future land planning use.	High	Short	General Fund, Grants
1-49	RMA	Identify and implement strategies that result in promoting stormwater management through groundwater recharge projects	High	Continuing	General Fund, Grants
1-50	RMA	Develop a program to identify, prioritize, fund and develop designs to replace functionally obsolete bridges	High	Continuing	General Fund, Grants
1-51	RMA	Develop a program to identify, prioritize, fund and develop designs to replace structurally obsolete bridges	High	Continuing	General Fund, Grants
1-52	RMA	Design and construct a bridge structure on Road 184 (btw A24-A32) on the White River	High	Short	General Fund, Grants
1-53	RMA	Design and construct a bridge structure on R156 (btw A32-A40) on White Rive	High	Short	General Fund, Grants
1-54	RMA	Design and construct a bridge structure on R88 (btw A56-A84) on Deer Creek	High	Short	General Fund, Grants
1-55	RMA	Identify, prioritize, fund and develop permanent solutions for low water crossings throughout the County	High	Continuing	General Fund, Grants

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-56	RMA	Engage the entire community and develop a County-wide drought response plan to respond to period of prolonged dry weather	High	Continuing	General Fund, Grants
1-57	RMA	Identify potential problem areas, and develop and implement a plan to address potential groundwater contamination issues in small water systems	High	Continuing	General Fund, Grants
1-58	RMA	Develop transportation plans and projects that support providing adequate vehicular access to the southwest corner of the County after High Speed Rail is constructed	High	Short	General Fund, Grants
1-59	RMA	Develop and implement a program to address potential channel capacity loss, potential flooding issues, and bridge clearance issues resulting from subsidence on the Friant Kern Canal	High	Short	General Fund, Grants
1-60	RMA	Seismically retrofit or replace County and local ramps and bridges that are categorized as structurally deficient by Caltrans, are located in high ground shaking areas, and/or are necessary for first responders to use during and/or immediate after a disaster or emergency.	High	Continuing	General Fund, Grants
1-61	RMA	Identify at risk structures and reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	High	Continuing	General Fund, Grants
1-62	RMA	Manage vegetation in areas within and adjacent to rights-of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.	High	Continuing	General Fund, Grants
1-63	RMA	Implement a fuel reduction program, such as the collection and disposal of dead fuel, within open spaces and around critical facilities and residential structures located within a high and very high wildfire zones.	High	Continuing	General Fund, Grants
1-64	RMA	Develop a Debris Management Plan.	High	Medium	Grants

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
1-65	RMA	Develop a County-wide Storm Water Resources Plan.	High	Medium	General Fund, Grants
1-66	RMA	Develop and implement programs and policies to protect and enhance surface water and groundwater resources critical to human consumption.	High	Continuing	General Fund, Grants
1-67	RMA	Develop groundwater recharge projects to promote groundwater sustainability, and mitigate and recover from the effects of prolonged drought.	High	Continuing	General Fund, Grants
2-1	OES, RMA, PIO	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	High	Continuing	General Fund
2-2	RMA	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	High	Short	General Fund
2-3	HHSA, Fire, Sheriff	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	High	Continuing	General Fund
2-4	RMA	Develop and implement a County-wide program to promote water use understanding and water conservation.	High	Continuing	General Fund, Grants
3-1	RMA	Conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.	High	Continuing	Owners
3-2	RMA, Ag	Maintain agriculture as the primary land use in the valley region of the County, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's real contribution to the conservation of open space and natural resources.	High	Continuing	General Fund

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
3-3	RMA, Ag	Provide continuing support to the Agricultural Conservation Easement Program to help protect and preserve agricultural lands (including Important Farmlands), as defined in the General Plan Safety Element. This program may require payment of an in-lieu fee sufficient to purchase a farmland conservation easement, farmland deed restriction, or other farmland conservation mechanism as a condition of approval for conservation of important agricultural land to non-agricultural use.	High	Continuing	General Fund
3-4	RMA	Seek to protect and enhance surface water and groundwater resources critical to agriculture.	High	Short	General Fund
3-5	RMA	Identify opportunities for infill development projects near employment areas within all unincorporated communities to reduce vehicle trips.	High	Continuing	General Fund
3-6	RMA	Encourage high-density residential development (greater than 14 dwelling units per gross acre) to locate along collector roadways and transit routes, and near public facilities (e.g., schools, parks), shopping, recreation, and entertainment, where economically feasible.	High	Continuing	General Fund
3-7	RMA	Review Leadership in Energy and Environmental Design (LEED) and LEED-neighborhood development certification requirements and develop an implementation program.	High	Continuing	General Fund
3-8	RMA	Encourage the location of ancillary employee services (including, but not limited to, child care, restaurants, banking facilities, convenience markets) near major employment centers for the purpose of reducing midday vehicle trips.	High	Continuing	General Fund

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
3-9	RMA	<p>Encourage new streets to be designed and constructed to not only accommodate traffic, but also serve as comfortable pedestrian and cyclist environments. These should include, but not be limited to:</p> <ul style="list-style-type: none"> • Street tree planting adjacent to curbs and between the street and sidewalk to provide a buffer between pedestrians and automobiles, where appropriate • Minimize curb cuts along streets • Sidewalks on both sides of streets, where feasible <p>Bike lanes and walking paths, where feasible on collectors and arterials</p>	High	Continuing	General Fund, grants
3-10	RMA, TCOE	Work with school districts and land developers to locate school sites consistent with current and future land uses. The County shall also encourage siting new schools near the residential areas that they serve and with access to safe pedestrian paths to schools.	High	Continuing	General Fund, School Bonds
3-11	RMA	Work to comprehensively study methods of transportation, which may contribute to a reduction in air pollution in Tulare County.	High	Short	General Fund
3-12	RMA	Encourage all new development, including rehabilitation, renovation, and redevelopment, to incorporate energy conservation and green building practices to maximum extent feasible. Such practices include building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.	High	Continuing	Property Owners
4-1	RMA, Fire	Coordinate with cities to develop cohesive fire safety plans with overlapping coverage.	High	Continuing	General Fund
4-2	Fire, RMA	Work with local and Federal agencies to support efforts to reduce fuel related hazards on public lands.	High	Continuing	General Fund

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
4-3	OES, Fire	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	High	Continuing	General Fund
4-4	OES, Fire	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	High	Continuing	General Fund
4-5	OES	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	High	Continuing	General Fund
4-6	RMA	Increase participation in the National Flood Insurance Program (NFIP) by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	High	Continuing	General Fun
5-1	RMA, Fire, Sheriff	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	High	Short	General Fund
5-2	RMA	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.	Medium	Continuing	General Fund

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Project Number	Responsibility	Description	Priority	Schedule	Funding Source
5-3	RMA	In approving new facilities, such as nursing homes, housing for the elderly and other housing for the mentally and physically infirm, to the extent possible, ensure that such facilities are located within reasonable distance of fire and law enforcement stations	Medium	Continuing	General Fund
5-4	RMA	Expand the Street Names and House Numbering Ordinance to all areas of the County, including private roads, for emergency 911 purposes.	Medium	Short	General Fund

6.4 National Flood Insurance Program Participation and Compliance

Tulare County has adopted the Model Floodplain Management Ordinance within the County to maintain eligibility within the National Flood Insurance Program. **Table 6-4** shows the status of all jurisdictions in the NFIP. Since 1968 the National Flood Insurance Program (NFIP) has provided federally funded flood insurance to homeowners, renters, and businesses in communities that adopt and enforce floodplain management ordinances to reduce future flood damage. The County adopted the County Flood Prevention Ordinance, Ordinance Code of Tulare County, Part VII, Chapter 27. This allows residents of the County to remain eligible to purchase flood insurance through the NFIP. The Ordinance meets the minimum standards set forth in Title 44, Section 60.3 of the CFR. The City of Visalia participates in the Community Rating System.

Table 6-4: NFIP Participation by Jurisdiction		
Jurisdiction	NFIP Update	CRS Participation
Dinuba	June 16, 2009	No
Exeter	No Special Flood Hazard Area	No
Farmersville	June 16, 2009	No
Lindsay	June 16, 2009	No
Porterville	June 16, 2009	No
Tulare	June 16, 2009	No
Tulare County	December 18, 2012	No
Tule River Tribe	N/A	N/A
Visalia	June 16, 2009	Yes (expired)
Woodlake	June 16, 2009	No

The County Flood Prevention Ordinance's effect is limited to requiring that any new construction or substantial improvement to existing structures will have to comply with the standards of construction identified in the Ordinance. The County's continued involvement in NFIP supports this plan. Currently, all jurisdictions, except the City of Exeter, implement a floodplain management program designed to protect the people and property of the jurisdiction and implements activities such as public information and outreach activities, mapping and regulatory activities, and flood damage reduction activities as outlined in the individual jurisdictions floodplain management program.

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Repetitive Loss

A repetitive loss property is defined by FEMA as an NFIP-insured property that has experienced any of the following since 1978, regardless of any changes in ownership:

- Four or more paid losses in excess of \$1,000
- Two paid losses in excess of \$1,000 within any rolling 10-year period
- Three or more paid losses that equal or exceed the current value of the insured property.

No repetitive loss structures were identified in any jurisdiction.

7.0 Plan Maintenance Procedures

The following section describes the process to implement, monitor and update the 2017 MJLHMP. It also describes ways that the MJLHMP supports and other County and city plans such as the Safety Element of the General Plan and continued public involvement the hazard mitigation process.

7.1 Implementation, Updating and Enhancement

The planning team includes representatives from each jurisdiction who contributed to the development of the MJLHMP. **Table 7-1** identifies individual planning team members. The planning team oversaw the development of the MJLHMP and made recommendations on key elements of the MJLHMP including establishing goals and mitigation activities, implementing public outreach within their individual jurisdictions and developing maintenance strategies.

Table 7-1: Tulare County Hazard Mitigation Planning Team			
Jurisdiction	Agency/Department	Name	Title
City of Dinuba	Fire Department	Chad Thompson	Fire Chief
City of Dinuba	Police Department	Devon Popovich	Chief
City of Dinuba	Fire Department	Sean Doyle	Battalion Chief
City of Exeter	Public Works	Daymon Qualls	Public Works Director
City of Exeter	Administration	Randy Groom	City Manager
City of Farmersville	Fire Department	John Crivello	Fire Chief
City of Porterville	Fire Department	Glenn Hall	Battalion Chief
City of Lindsay	Public Works	Mike Camarena	City Services Director
City of Porterville	Fire Department	Glenn Irish	Fire Chief
City of Porterville	Administration	John Lollis	City Manager
City of Porterville	Public Works	Mike Reed	Public Works Director
City of Tulare	Fire Department	Cameron Long	Chief
City of Visalia	Public Works	Adam Ennis	Director
City of Visalia	Fire Department	Danny Wristen	Chief
City of Visalia	Fire Department	Darrin Hughes	Battalion Chief
City of Visalia	Fire Department	Karl Kassner	Captain
City of Visalia	Natural Resources	Lupe Garcia	
City of Visalia	Public Works	Norm Goldstrom	Public Works Manager
City of Woodlake	Community Development	Jason Waters	Director
College of the Sequoias	Police Department	Kevin Mizner	Police Chief
Tulare County	Information & Communications Tech.	Bob Irvine	Division Manager
Tulare County	Resource Management Agency	Bryce Howard	Director
Tulare County	Health and Human Services Agency	Carrie Amador	Staff Services Analyst
Tulare County	Resource Management Agency	Dave Bryant	Chief Planner

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Table 7-1: Tulare County Hazard Mitigation Planning Team			
Jurisdiction	Agency/Department	Name	Title
Tulare County	Office of Emergency Services	Dave Lee	OES Specialist
Tulare County	Office of Emergency Services	Andrew Lockman	Emergency Services Manager
Tulare County	Office of Emergency Services	Jacqui Balderas	Administrative Aid
Tulare County	Fire Department	David Cornett	Captain
Tulare County	Health and Human Services Agency	David Rozell	Manager
Tulare County	Resource Management Agency	Dennis Lehman	Manager
Tulare County	County Administrative Office	Eric Coyne	Deputy CAO
Tulare County	County Counsel	Jennifer Takehana	Deputy County Counsel
Tulare County	Sheriff's Office	Kevin Kemmerling	Sergeant
Tulare County	County Administrative Office	Kyria Martinez	Analyst, Economic Development
Tulare County	Agriculture	Marilyn Kinoshita	Ag-Commissioner/Sealer
Tulare County	Information & Communications Tech.	Mark Clark	GIS Coordinator
Tulare County	Resource Management Agency	Mike Washam	Director
Tulare County	Health and Human Services Agency	Nilsa Gonzalez	Env. Health Director
Tulare County	Sheriff's Office	Robert Schimpf	Lieutenant
Tulare County	Health and Human Services Agency	Timothy Lutz	Fiscal Operations Director
Tulare County Office of Education	General Services	Jeff Ramsay	Director
Tule River Indian Tribe	Emergency Services	Joe Boy Perez	Director of Emergency Services
Tule River Indian Tribe	Fire Department	Richard Brown	Fire Chief
Navigating Preparedness Assoc.		Lee Rosenberg	Managing Director

It was important to the County that each member of the planning team was given the opportunity to provide input during the MJLHMP development. This philosophy was essential to the previous 2011 effort and will be continued for future MJLHMP revisions through evaluations, maintenance, and updates of data, processes, and programs. The planning team will convene annually to perform annual reviews of the MJLHMP and its implementation. The planning team will include representation from local agencies, citizen groups, and stakeholders within the planning area.

If planning team members can no longer serve on the planning team, another staff person should be assigned to the planning team so that every department or agency is represented.

7.2 Monitoring

The County is responsible for keeping the MJLHMP relevant over its five-year life. As such, planning team should engage in continual monitoring, which can best be accomplished by developing an annual progress report. The annual report should review the effectiveness of the mitigation actions accomplished, and evaluate changes in the hazards profiles and the need for new mitigation activities. The objective is to both update the status of the plan and modify the mitigation actions as required.

7.2.1 Maintenance Schedule

Each January, the planning team will begin the process of reviewing the MJLHMP and the implementation of mitigation actions to develop an annual progress report. This process can also assist the budget review process by providing information on mitigation projects and activities that have been completed or implemented. The annual progress report process will serve to align annual reviews of the MJLHMP to incorporate information. As updates to the MJLHMP are completed, the public will be made aware of the changes to the MJLHMP and make recommendations or comments.

The MJLHMP progress report will also be posted on the County website on a dedicated page, provided to the local media through a press release, and presented in the form of a report to local agencies. The planning team will strive to complete the progress report process by March of each year.

Section 201.6.d.3 of 44 CFR requires that local MJLHMPs be reviewed, revised as appropriate, and resubmitted for approval in order to remain eligible for benefits awarded under the DMA. The County intends to update its MJLHMP on a five-year cycle.

FEMA REGULATION CHECKLIST: PLAN MAINTENANCE PROCESS

Monitoring, Evaluating, and Updating the Plan

44 CFR § 201.6(c)(4)(i): The plan shall include a plan maintenance process that includes a “section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.”

Element

A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating, and updating the mitigation plan within a five-year cycle)?

Incorporation into Other Planning Mechanisms

44 CFR § 201.6(c)(4)(ii): The plan shall include a plan maintenance process that includes a “process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.”

Element

C6. Does the plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate?

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

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7.2.2 Maintenance Evaluation Process

The planning team will monitor the hazard mitigation strategies during the year and at a meeting held in January of each year, team members will provide information for the evaluation of the progress of the 2017 MJLHMP. Tulare County Office of Emergency Services (OES) is responsible for leading the annual MJLHMP monitoring and evaluation process. Andrew Lockman is the current director of County OES. This evaluation will include:

- A summary of any hazard events that occurred during the prior year and their impact on the planning area
- A review of successful mitigation initiatives identified in the MJLHMP
- A brief discussion about the targeted strategies that were not completed
- A re-evaluation of the action plan to determine if the timeline for identified projects needs to be amended, and the reason for the amendment, e.g., funding issues
- Any recommendations for new projects
- Any changes in or potential for new funding options (grant opportunities)
- Any impacts of other planning programs or initiatives in the County planning area that involve hazard mitigation

The planning team will write a progress report that will be provided to the County and participating jurisdictions for review and incorporation in the budget process as mitigation projects are completed or implemented.

7.2.3 Update Process

Based on needs identified by the planning team the update will, at a minimum, include the following elements:

- The hazard risk assessment will be reviewed and updated using the most recent information and technologies.
- The action plan will be reviewed and revised to account for any initiatives completed, dropped, or changed and to account for changes in the risk assessment
- Any new County or member jurisdiction policies identified under other planning mechanisms, as appropriate.
- The draft MJLHMP update will be sent to appropriate agencies and organizations for comment.
- The public will be given an opportunity to comment on the updated version prior to adoption.
- The County and all jurisdictions will adopt the updated MJLHMP.

At a minimum of six months prior to the expiration date of the 2017 MJLHMP, the planning team will implement a MJLHMP revision schedule to formally update the MJLHMP. Tulare County Office of Emergency Services (OES) is responsible for leading the MJLHMP update process. Andrew Lockman is the current director of County OES. The MJLHMP will be revised using the latest FEMA hazard mitigation

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guidance documents, such as the Mitigation Planning Tool and Regulation Checklist to ensure compliance with current hazard mitigation planning regulations.

7.2.4 Method for Incorporation of the MJLHMP into Existing Planning Mechanisms

The requirements for review and incorporation of existing plans, studies, reports, and technical information (44 CFR §201.6(b)(3)), as described in the federal regulations was part of the planning process. During the planning process, members of the planning team reviewed and incorporated information into the MJLHMP information from several existing plans, studies, and reports. These documents are listed below:

- The 2016 County General Plan Health and Safety Element. The Safety Element adopts the MJLHMP.
- The 2013 Emergency Operations Plan. The hazard section of the EOP provided a basis for the hazards identified in the MJLHMP.
- The 2016 draft County Strategic Plan. This plan was used to align strategic objectives with hazard mitigation goals.
- The 2011 Local Hazard Mitigation Plan. This provided background and regional knowledge.
- Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2014
- California APG: The 2012 APG provides information on the effects of climate change on California, and provided adaptation planning guidance used in the development of the climate change hazard profile.
- 2013 State of California Multi-Hazard Mitigation Plan. The State HMP was reviewed to ensure the alignment of the County MJLHMP with the state's current hazard profiles and mitigation strategy.
- Tule River Indian Tribe, General Website, 2010. The Tule River Tribe website was accessed on numerous occasions throughout the planning process. The website provided information regarding the Tribe in general, their land use and the Tribal Council structure.

A full list of references that were used to support updating the MJLHMP is contained in **Appendix F**.

The hazard mitigation plan process provided the County and participating jurisdictions with an opportunity to review and expand on policies contained in several other plans. The County views the General Plan and the MJLHMP as complementary documents that work together to reduce risk exposure to residents. Many of the ongoing recommendations identified in the HMP are programs recommended in the General Plan Safety Element.

Per California Assembly Bill 2140, the County intends on adopting the MJLHMP as part of the Safety Element of the General Plan, adopted pursuant to Section 65302 (g) of the California Government Code. The County and participating jurisdictions will incorporate MJLHMP analysis of hazards and risks, mitigation goals and mitigation actions into the following planning mechanisms and processes:

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- City and County EOPs and other emergency response processes. Many EOPs list the hazards that the planning area faces. Since these are well developed in the MJLHMP, the EOPs can excerpt this documentation.
- The County and participating jurisdictions' capital improvement plans. The impacts of new development and projects will be analyzed for their effect on reducing hazards and lowering risk to the population and built out environment.
- Municipal Codes. The MJLHMP provides recommendations for strengthening city and County codes that support mitigation activities.
- County Flood Prevention Ordinance (Ordinance Code of Tulare County, Part VII, Chapter 27). The objective is to minimize the impacts of floods through building restrictions in flood zones and specifically in special flood hazard areas.
- County Flood Control Master Plan. This element of the General Plan addresses issues particularly related to flood control along natural watercourses in the County. This adopted Element is incorporated into this General Plan Update document as Chapter 15.
- Hazardous Waste Management Plan. The County has a hazardous materials management plan to protect the health and safety of all citizens within the County and minimize the risk associated with hazardous materials through the development of policies and procedures.
- Wildland Fire Management Plans. The County requires wildland fire management plans for projects adjoining significant areas of open space that may have high fuel loads.
- County Climate Action Plan. Incorporates climate adaptation and resiliency strategies identified in California Government Code 65302 (g)(4)
- Stormwater Quality Management Program (SWQMP). Describes measures that the local jurisdiction will take to minimize stormwater pollution. The SWQMP is required by the National Pollutant Discharge Elimination System Phase II regulations, which became effective in March 2003.

Incorporation of action items and processes from the 2017 MJLHMP into various planning documents will be completed as other plans are updated and when new plans are developed. These efforts may coincide with the Plan Maintenance Method and Schedule activities. Additional action items may be implemented through the creation of new public educational programs, continued interagency coordination, and public input and participation. **Appendix H** contains a detailed analysis of integration of the MJLHMP into the County General Plan Safety Element and Climate Action Plan.

7.3 Continued Public Involvement

The overall success of the MJLHMP is through implementation of the plan's hazard mitigation strategy and activities to reduce the effects of hazards, protect people and property, and improve the County's efforts to respond to and recover from disasters. Community outreach is considered a primary policy goal of all County agencies, specifically when addressing community-related health and safety risks. Residents in Tulare County's unincorporated communities, its cities, and members of the Tule River Tribe will ultimately benefit from the implementation of the MJLHMP and must be given the opportunity to provide input to the continuous cycle of MJLHMP planning.

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The County and participating jurisdictions will continue to strive to keep the public aware of hazard mitigation projects that take place because of the MJLHMP. Public information will be released through press releases, County website announcements, public hearings, council and commission meetings, and the County e-news blast to subscribers.

Projects that are hazard mitigative in nature are included in the County and participating jurisdictions' annual budget planning process. County workshops are held and meetings are convened, and the public is made aware of the planning through council meetings, open workshop sessions, and press releases during this time. The budget planning process will serve as an annual opportunity to conduct outreach to the public on updates to the hazard mitigation planning process. A survey can be developed to gather input on how the community knows about the progress being made on MJLHMP activities. The County will also provide press releases and information about hazard mitigation projects to the public on a regular basis, but at a minimum, the public will be engaged to learn about current MJLHMP activities, and given the opportunity to provide comments and information on an annual basis to update and maintain the MJLHMP. The County Office of Emergency Services will be responsible to ensure the public is included and involved in the annual public plan update and outreach.

When the time comes to begin revising the 2017 MJLHMP, the plan update process will be implemented, which will include continued public involvement and input through attendance at designated public meetings, web postings, through press releases to local media, community fairs and events, and surveys. As part of this effort, a series of public meetings will be held and public comments will be solicited on the revisions to the MJLHMP per the five-year cycle.

8.0 Changes in Elements since Previous Effort

This section describes changes to the MJLHMP organization and structure since the previous plan.

8.1 Changes in Planning Process and Mitigation Actions

FEMA REGULATION CHECKLIST: PLAN UPDATE

Plan Update to Reflect Development Changes

44 CFR § 201.6(d)(3): A local jurisdiction must review and revise its plan to reflect changes in development.

Element

D1. Was the plan revised to reflect changes in development? 44 CFR § 201.6(d)(3)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

The revised MJLHMP is a more comprehensive and actionable plan. While the 2011 LHMP provided a template for mitigation actions, it did not include jurisdiction-specific mitigation actions. This effort integrated the objectives and priorities of the General Plan Safety Element throughout the MJLHMP and included the impacts of climate change both as an individual hazard and as a component of other hazards.

Table 3.5 reflects the status of the 2011 Plan mitigation measures.

The planning team reviewed and approved the general outline of the new MJLHMP. Following the review, the planning team met to analyze and agree on the elements of the MJLHMP, approve the draft mitigation activities and priorities, and recommend forwarding the draft plan to the individual jurisdiction approval boards for approval and to FEMA and Cal OES for courtesy reviews.

To complete this planning effort, each jurisdiction reviewed previous assets, capabilities and hazard mitigation actions. The individual jurisdictions were required to complete a checklist describing changes since the 2011 planning effort. Those checklists are included in the individual jurisdiction **Annexes A** through **I**. Any new asset, capability or mitigation action is listed in **Annexes A** through **J**.

8.2 Changes to Identified Hazards

Two hazards were removed from the 2011 LHMP effort. Avalanche hazard was removed due to low frequency of occurrence and no impact to communities. Volcano hazard was removed due to no frequency in several hundred years.

Several hazards were added including climate change, dam failure, drought, and levee failure. Since 2011, climate change and drought have had a significant impact on the County and participating jurisdictions. Climate change directly affects the extremity of hazards and the impact of those hazards. The entire State of California has been under a State of Drought Emergency since 2014. The County agricultural industry is impacted significantly by the drought. The tree mortality mitigation action currently underway is a high priority to mitigate fuel for forest fires. Dam failures were added as hazards primarily due to aging

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infrastructure. The two USACE dams located within the County, if compromised, could have devastating effects to the County and jurisdictions within. Levee failures were added as hazards due to the lack of knowledge regarding whether they are in compliance with current FEMA requirements and the extent of which communities would potentially be impacted by levees that are not registered at all.

Appendix A FEMA Local Hazard Mitigation Plan Review Tool

REGION IX LOCAL HAZARD MITIGATION PLAN REVIEW TOOL

The *Local Hazard Mitigation Plan Review Tool* demonstrates how the Local Hazard Mitigation Plan meets the regulation in 44 CFR §201.6 and offers State and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The **Regulation Checklist** provides a summary of FEMA's evaluation of whether the plan has addressed all requirements.
- The **Plan Assessment** identifies the plan's strengths as well as documents areas for future improvement. This section also includes a list of resources for implementation of the plan.
- The **Multi-Jurisdiction Summary Sheet** is a mandatory worksheet for multi-jurisdictional plans that is used to document which jurisdictions are eligible to adopt the plan.
- The **Hazard Identification and Risk Assessment Matrix** is a tool for plan reviewers to identify if all components of Element B are met.

Jurisdiction: Tulare County	Title of Plan: The Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan	Date of Plan: October 2017
Local Point of Contact: Dave Lee	Address: 5957 S. Mooney Blvd. Visalia, CA 93277	
Title: OES Specialist		
Agency: Tulare County Office of Emergency Services		
Phone Number: 599-624-7496	E-Mail: dlee@tularehhsa.org	

State Reviewer:	Title:	Date:
Date Received at State Agency		
Date Sent to FEMA		

FEMA Reviewer: Bill Chapin Lindsey Robinson Alison Kearns	Title: Hazard Mitigation Planner Hazard Mitigation Planner Senior Community Planner	Date: February 26, 2018 February 27, 2018 March 7, 2018
Date Received in FEMA Region IX	First Submission: February 1, 2018 Second Submission: March 7, 2018	
Date Not Approved	After First Submission: March 2, 2018	
Date Approvable Pending Adoption	After Second Submission: March 7, 2018	
Date Approved		

**SECTION 1:
REGULATION CHECKLIST**

INSTRUCTIONS: The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the plan by element/sub-element and to determine if each requirement has been 'Met' or 'Not Met.' The 'Required Revisions' summary at the bottom of each element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is 'Not Met.' Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in the *Local Plan Review Guide* in Section 4, Regulation Checklist.

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT A. PLANNING PROCESS				
A1. Does the plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	a. Does the plan provide documentation of how the plan was prepared? This documentation must include the schedule or timeframe and activities that made up the plan's development as well as who was involved.	Section 2 Appendix D	X	
	b. Does the plan list the jurisdiction(s) participating in the plan that are seeking approval?	Section 1.4 Section 4	X	
	c. Does the plan identify who represented each jurisdiction? (At a minimum, it must identify the jurisdiction represented and the person's position or title and agency within the jurisdiction.)	Section 2.2 Section 7.1 Appendix D Samples 4, 8, 12 and 16	X	

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1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
A2. Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	a. Does the plan document an opportunity for neighboring communities, local, and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, as well as other interested parties to be involved in the planning process?	Section 2.2	X	
	b. Does the plan identify how the stakeholders were invited to participate in the process?	Appendix D, Table D-1, Sample 1	X	
A3. Does the plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	a. Does the plan document how the public was given the opportunity to be involved in the planning process?	Section 2.3 Appendix E	X	
	b. Does the plan document how the public's feedback was incorporated into the plan?	Section 2.3 Appendix E	X	
A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))		Section 2.2 Section 5.1 Section 6.2 Section 7.2.4 Appendix H	X	
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))		Sections 7.1 to 7.3	X	
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	a. Does the plan identify how, when, and by whom the plan will be monitored (how will implementation be tracked) over time?	Section 7.1 Section 7.2	X	
	b. Does the plan identify how, when, and by whom the plan will be evaluated (assessing the effectiveness of the plan at achieving stated purpose and goals) over time?	Section 7.1 Section 7.2	X	
	c. Does the plan identify how, when, and by whom the plan will be updated during the 5-year cycle?	Section 7.1 Section 7.2	X	
<u>ELEMENT A: REQUIRED REVISIONS</u>				

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1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT				
(Reviewer: See Section 4 for assistance with Element B)				
B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	a. Does the plan include a general description of all natural hazards that can affect each jurisdiction?	Section 5.1	X	
	b. Does the plan provide rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?	Section 5.1	X	
	c. Does the plan include a description of the type of all natural hazards that can affect each jurisdiction?	Section 5.2.2 Section 5.2.3 Section 5.2.4 Section 5.2.5 Section 5.2.7 Section 5.2.8 Section 5.2.9 Section 5.2.11 Section 5.2.12 Section 5.2.14 Section 5.2.16	X	
	d. Does the plan include a description of the location for all natural hazards that can affect each jurisdiction?	Section 5.2.2 Section 5.2.3 Section 5.2.4 Section 5.2.5 Section 5.2.7 Section 5.2.8 Section 5.2.9 Section 5.2.11 Section 5.2.12 Section 5.2.14 Section 5.2.16 Appendix B	X	
	e. Does the plan include a description of the extent for all natural hazards that can affect each jurisdiction?	Section 5.2.2 Section 5.2.3 Section 5.2.4 Section 5.2.5 Section 5.2.7 Section 5.2.8 Section 5.2.9 Section 5.2.11 Section 5.2.12 Section 5.2.14 Section 5.2.16 Appendix B Appendix C	X	

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1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
B2. Does the plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	a. Does the plan include information on previous occurrences of hazard events for each jurisdiction?	Section 4.7 Section 5.2.2 Section 5.2.3 Section 5.2.4 Section 5.2.5 Section 5.2.7 Section 5.2.8 Section 5.2.9 Section 5.2.11 Section 5.2.12 Section 5.2.14 Section 5.2.16 Appendix C	X	
	b. Does the plan include information on the probability of future hazard events for each jurisdiction?	Section 5.2.2 Section 5.2.3 Section 5.2.4 Section 5.2.5 Section 5.2.7 Section 5.2.8 Section 5.2.9 Section 5.2.11 Section 5.2.12 Section 5.2.14 Section 5.2.16 Section 5.3.1 Appendix B	X	
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	a. Is there a description of each hazard's impacts on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)?	Section 5.2.2 Section 5.2.3 Section 5.2.4 Section 5.2.5 Section 5.2.7 Section 5.2.8 Section 5.2.9 Section 5.2.11 Section 5.2.12 Section 5.2.14 Section 5.2.16 Annexes A – J, Summary of Vulnerabilities and Potential Loss Tables	X	

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1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
	b. Is there a description of each identified hazard's overall vulnerability (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction?	Section 4.6 Section 5.2.2 Section 5.2.3 Section 5.2.4 Section 5.2.5 Section 5.2.7 Section 5.2.8 Section 5.2.9 Section 5.2.11 Section 5.2.12 Appendix B Annexes A – J, See Section X.3 for each jurisdiction	X	
B4. Does the plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))		Section 6.4	X	
ELEMENT B: REQUIRED REVISIONS				
ELEMENT C. MITIGATION STRATEGY				
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	a. Does the plan document each jurisdiction's existing authorities, policies, programs and resources?	Section 3 Section 5.2.2 Section 5.2.5 Annexes A – J See Section X.4 for each jurisdiction	X	
	b. Does the plan document each jurisdiction's ability to expand on and improve these existing policies and programs?	Section 3 Annexes A – J See Section X.4 for each jurisdiction	X	
C2. Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))		Section 6.4	X	
C3. Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))		Section 6.2	X	
C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being	a. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects to reduce the impacts from hazards?	Section 6.2 Section 6.3	X	

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 8

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	b. Does the plan identify mitigation actions for every hazard posing a threat to each participating jurisdiction?	Section 6.2 Section 6.3 Annexes A – J, See Section X.5 for each jurisdiction	X	
	c. Do the identified mitigation actions and projects have an emphasis on new and existing buildings and infrastructure?	Section 6.2 Section 6.3 Annexes A – J, See Section X.5 for each jurisdiction	X	
C5. Does the plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	a. Does the plan explain how the mitigation actions will be prioritized (including cost benefit review)?	Section 6.3 Appendix F	X	
	b. Does the plan identify the position, office, department, or agency responsible for implementing and administering the action, potential funding sources and expected timeframes for completion?	Section 6.3 Annexes A – J, See Table X.11 or X.12 for each jurisdiction	X	
C6. Does the plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	a. Does the plan identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated?	Section 1.3 Section 7.2.4 Appendix H	X	
	b. Does the plan describe each community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms?	Section 7.2.4, Appendix H Annexes A-J	X	
	c. The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts.	Section 7.2.4 Appendix H	X	
ELEMENT C: REQUIRED REVISIONS				
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (Applicable to plan updates only)				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))		Section 4.5	X	

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 8

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	Section 3.5 Section 8.1 Annexes A-J, Table X-9 or X-10	X		
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	Section 2.2 Section 6.3 Section 8 Appendix F	X		
<u>ELEMENT D: REQUIRED REVISIONS</u>				
ELEMENT E. PLAN ADOPTION				
E1. Does the plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	Courtesy Review	NA		
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	Courtesy Review	NA		
<u>ELEMENT E: REQUIRED REVISIONS</u>				
ELEMENT F. ADDITIONAL STATE REQUIREMENTS (Optional for State Reviewers only; not to be completed by FEMA)				
F1.				
F2.				
<u>ELEMENT F: REQUIRED REVISIONS</u>				

SECTION 2: PLAN ASSESSMENT

A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be improved beyond minimum requirements.

Element A: Planning Process

Strengths:

1) The plan provides detailed descriptions of the processes and methods that will be used to evaluate and update the plan.

Opportunities for Improvement:

1) Continue to build out your planning team with stakeholders who are interested in risk reduction.

Element B: Hazard Identification and Risk Assessment

Strengths:

1) Overall, the plan demonstrates a strong grasp of each of the required elements in the risk assessment.

2) Like the Summary of Vulnerabilities and Potential Loss tables in each Annex; they are clear and easy to read.

Opportunities for Improvement:

1) The vulnerability summary would benefit from clear statement about key problems/issues facing the county.

2) As vulnerability is usually informed by the risks identified, it is a little confusing that the list of vulnerable assets by hazard comes before the hazard profiles in the plan.

3) While following a template for jurisdictional annexes is OK, the annexes in the plan are in many ways nearly identical, with little indication of what makes the jurisdictions unique in terms of their vulnerabilities. Each annex includes a unique list of vulnerable facilities, but a vulnerability summary should go beyond this and highlight the key issues/problems facing a jurisdiction.

Element C: Mitigation Strategy

Strengths:

- 1) The main plan contains a particularly strong section on incorporation/integration.
- 2) The mitigation strategy considers a wide range of actions with a lot of genuine opportunities for reducing long-term risk for nearly all of the identified hazards.

Opportunities for Improvement:

- 1) With some exceptions, the jurisdiction-specific mitigation actions within each annex mostly consist of identical sets of actions. Each jurisdiction's mitigation strategy should be tailored to address the unique vulnerabilities that it faces.

Element D: Plan Update, Evaluation, and Implementation (*Plan Updates Only*)

Strengths:

- 1) The section devoted to summarizing what is different about the plan update is extremely helpful.

Opportunities for Improvement:

- 1) Consider adding a reference to Table 3.5 (p. 24) within Section 8.

B. Resources for Implementing and Updating Your Approved Plan

This resource section is organized into three categories:

- 1) Guidance and Resources
- 2) Training Topics and Courses
- 3) Funding Sources

Guidance and Resources

Local Mitigation Planning Handbook

<https://www.fema.gov/media-library/assets/documents/31598>

Beyond the Basics

<http://mitigationguide.org/>

Mitigation Ideas

<https://www.fema.gov/media-library/assets/documents/30627>

Plan Integration: Linking Local Planning Efforts

<https://www.fema.gov/media-library/assets/documents/108893>

Integrating Disaster Data into Hazard Mitigation Planning

<https://www.fema.gov/media-library/assets/documents/103486>

Integrating Historic Property and Cultural Resource Considerations into Hazard Mitigation Planning

<https://www.fema.gov/ar/media-library/assets/documents/4317>

Community Rating System User Manual

<https://www.fema.gov/media-library/assets/documents/8768>

U.S. Climate Resilient Toolkit

<https://toolkit.climate.gov/>

2014 National Climate Assessment

<http://nca2014.globalchange.gov/>

Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation

http://ipcc-wg2.gov/SREX/images/uploads/SREX-All_FINAL.pdf

FY15 Hazard Mitigation Assistance Unified Guidance

<https://www.fema.gov/media-library/assets/documents/103279>

Climate Resilient Mitigation Activities for Hazard Mitigation Assistance

<https://www.fema.gov/media-library/assets/documents/110202>

Training

More information at <https://training.fema.gov/emi.aspx> or through your State Training Officer

Mitigation Planning

IS-318 Mitigation Planning for Local and Tribal Communities

<https://training.fema.gov/is/courseoverview.aspx?code=is-318>

IS-393 Introduction to Hazard Mitigation

<https://training.fema.gov/is/courseoverview.aspx?code=is-393.a>

G-318 Preparing and Reviewing Local Plans

G-393 Mitigation for Emergency Managers

Hazard Mitigation Assistance (HMA) Grant Programs

IS-212.b Introduction to Unified HMA

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-212.b>

IS-277 Benefit Cost Analysis Entry Level

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-277>

E-212 HMA: Developing Quality Application Elements

E-213 HMA: Application Review and Evaluation

E-214 HMA: Project Implementation and Programmatic Closeout

E-276 Benefit-Cost Analysis Entry Level

GIS and Hazus-MH

IS-922 Application of GIS for Emergency Management

<http://www.training.fema.gov/is/courseoverview.aspx?code=IS-922>

E-190 ArcGIS for Emergency Managers

E-296 Application of Hazus-MH for Risk Assessment

E-313 Basic Hazus-MH

Floodplain Management

E-273 Managing Floodplain Development through the NFIP

E-278 National Flood Insurance Program/ Community Rating System

Potential Funding Sources

Hazard Mitigation Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/hazard-mitigation-grant-program>

Pre-Disaster Mitigation Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/pre-disaster-mitigation-grant-program>

Flood Mitigation Assistance Grant Program

POC: FEMA Region IX and State Hazard Mitigation Officer

Website: <https://www.fema.gov/flood-mitigation-assistance-grant-program>

Emergency Management Performance Grant Program

POC: FEMA Region IX

Website: <https://www.fema.gov/emergency-management-performance-grant-program>

SECTION 3: MULTI-JURISDICTIONAL SUMMARY SHEET

INSTRUCTIONS: For multi-jurisdictional plans, this summary sheet must be completed by listing each participating jurisdiction that is eligible to adopt the plan.

MULTI-JURISDICTION SUMMARY SHEET					
#	Jurisdiction Name	Jurisdiction Type	Eligible to Adopt the Plan?	Plan POC	Email
1	Tulare County	County	N	Andrew Lockman	alockman@tularehhsa.org
2	Dinuba	City	N	Chad Thompson	cthompson@dinuba.ca.gov
3	Exeter	City	N	Daymon Qualls	dqualls@exetercityhall.com
4	Farmersville	City	N	John Crivello	jcrivello@farmersvillepd.com
5	Lindsay	City	N	Mike Camarena	engineering@lindsay.ca.us
6	Porterville	City	N	Mike Reed	mreed@ci.porterville.ca.us
7	Tulare	City	N	Paul Melikian	pmelikian@tulare.ca.gov
8	Visalia	City	N	Norm Goldstrom	norm.goldstrom@visalia.city
9	Woodlake	City	N	Ramon Lara	rlara@ci.woodlake.ca.us
10	Tulare County Office of Education	Special District	N	Adam Valencia	avalencia@tcoe.org
11	Tule River Tribe	Tribe	N	Joe Boy Perez	joeboy.perez@tulerivertribe-nsn.gov

SECTION 4:**HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX (OPTIONAL)**

INSTRUCTIONS: This matrix can be used by the plan reviewer to help identify if all of the components of Element B have been met. List out natural hazard names that are identified in the plan in the column labeled “Hazards” and put a “Y” or “N” for each component of Element B.

HAZARD IDENTIFICATION AND RISK ASSESSMENT MATRIX								
Hazard	Requirement Met? (Y/N)							
	Type	Location	Extent	Previous Occurrences	Probability	Impacts	Vulnerability	Mitigation Action

SECTION 1:

REGULATION CHECKLIST

INSTRUCTIONS: The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the plan by element/sub-element and to determine if each requirement has been 'Met' or 'Not Met.' The 'Required Revisions' summary at the bottom of each element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is 'Not Met.' Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in the *Local Plan Review Guide* in Section 4, Regulation Checklist.

1. REGULATION CHECKLIST		Location in Plan	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)		(section and/or page number)		
ELEMENT A. PLANNING PROCESS				
A1. Does the plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	a. Does the plan document the planning process, including how it was prepared (with a narrative description, meeting minutes, sign-in sheets, or another method)?	Section 2.2, Appendix D		
	b. Does the plan list the jurisdiction(s) participating in the plan that are seeking approval?	Section 1, pg. 1, Section 1.4, pg. 4		
	c. Does the plan identify who represented each jurisdiction? (At a minimum, it must identify the jurisdiction represented and the person's position or title and agency within the jurisdiction.)	Section 2.2 Table 2.1, Appendix D		

1. REGULATION CHECKLIST		Location in Plan	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)		(section and/or page number)		
A2. Does the plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	a. Does the plan document an opportunity for neighboring communities, local, and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, as well as other interested parties to be involved in the planning process?	Section 2.2 Table 2.1		
	b. Does the plan identify how the stakeholders were invited to participate in the process?	Appendix D, Table D-1 Sample 10		
A3. Does the plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))		Section 2.3, Appendix E		
A4. Does the plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))		Section 7.2.4, Appendix H		
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))		Section 7.3		
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	a. Does the plan identify how, when, and by whom the plan will be monitored (how will implementation be tracked) over time?	Section 7.2		
	b. Does the plan identify how, when, and by whom the plan will be evaluated (assessing the effectiveness of the plan at achieving stated purpose and goals) over time?	Section 7.2.2		

1. REGULATION CHECKLIST		Location in Plan	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)		(section and/or page number)		
	c. Does the plan identify how, when, and by whom the plan will be updated during the 5-year cycle?	Section 7.2.3		
ELEMENT A: REQUIRED REVISIONS				
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT				
(Reviewer: See Section 4 for assistance with Element B)				
B1. Does the plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	a. Does the plan include a general description of all natural hazards that can affect each jurisdiction?	Section 5.2		
	b. Does the plan provide rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?	Section 5.1 pg. 43, Section 5.5.2 addresses subsidence which is human caused in the Central Valley		
	c. Does the plan include a description of the location for all natural hazards that can affect each jurisdiction?	Section 5.2		
	d. Does the plan include a description of the extent for all natural hazards that can affect each jurisdiction?	Section 5.2		

1. REGULATION CHECKLIST		Location in Plan	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)		(section and/or page number)		
B2. Does the plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	a. Does the plan include information on previous occurrences of hazard events for each jurisdiction?	Section 5.2		
	b. Does the plan include information on the probability of future hazard events for each jurisdiction?	Section 5.2		
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	a. Is there a description of each hazard's impacts on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)?	Section 5.2		
	b. Is there a description of each identified hazard's overall vulnerability (structures, systems, populations, or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction?	Sections 4.6, 5.2, 5.3, Appendix J Annexes A - J		
B4. Does the plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))		Section 6.4, pg. 112		
ELEMENT B: REQUIRED REVISIONS				
ELEMENT C. MITIGATION STRATEGY				
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these	a. Does the plan document each jurisdiction's existing authorities, policies, programs and resources?	Section 3, Appendix J Annexes A - J		

1. REGULATION CHECKLIST		Location in Plan		
Regulation (44 CFR 201.6 Local Mitigation Plans)		(section and/or page number)	Met	Not Met
existing policies and programs? (Requirement §201.6(c)(3))	b. Does the plan document each jurisdiction's ability to expand on and improve these existing policies and programs?	Appendix J, Annexes A – J See Section X.4 for each jurisdiction		
C2. Does the plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))		Section 6.4		
C3. Does the plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))		Section 6.2		
C4. Does the plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	a. Does the plan identify and analyze a comprehensive range (different alternatives) of specific mitigation actions and projects to reduce the impacts from hazards?	Sections 6.2, 6.3		
	b. Does the plan identify mitigation actions for every hazard posing a threat to each participating jurisdiction?	Sections 6.2, 6.3, Appendix J Annexes A – J, See Section X.5 for each jurisdiction		

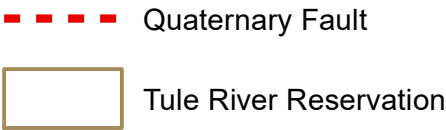
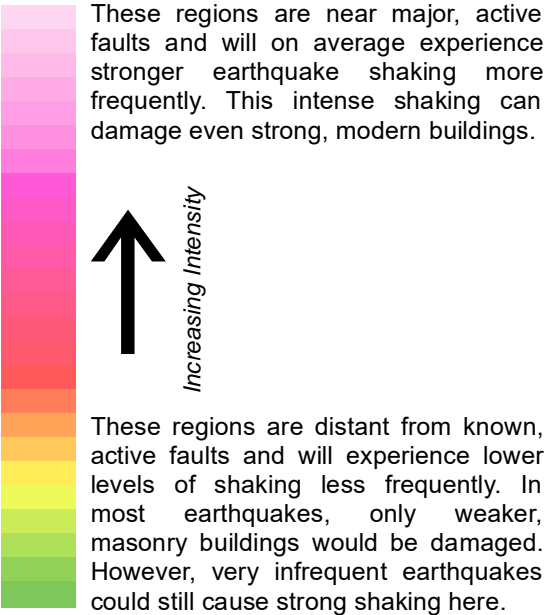
1. REGULATION CHECKLIST		Location in Plan		
Regulation (44 CFR 201.6 Local Mitigation Plans)		(section and/or page number)	Met	Not Met
	c. Do the identified mitigation actions and projects have an emphasis on new and existing buildings and infrastructure?	Sections 6.2, 6.3, Appendix J Annexes A – J, See Section X.5 for each jurisdiction		
C5. Does the plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	a. Does the plan explain how the mitigation actions and projects will be prioritized (including cost benefit review)?	Section 6.3, Appendix F		
	b. Does the plan identify the position, office, department, or agency responsible for implementing and administering the action/project, potential funding sources and expected timeframes for completion?	Section 6.3, Table 6.3		
C6. Does the plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	a. Does the plan identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated?	Section 7.2.4, Appendix H		
	b. Does the plan describe each community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms?	Section 7.2.4, Appendix H, Appendix J Annexes A -J		

1. REGULATION CHECKLIST		Location in Plan	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)		(section and/or page number)		
	c. The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts.	Appendix H		
ELEMENT C: REQUIRED REVISIONS				
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION				
(Applicable to plan updates only)				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))		Sections 4.4, 4.5		
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))		Section 8.1		
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))		Section 6.4, Appendix F		
ELEMENT D: REQUIRED REVISIONS				
ELEMENT E. PLAN ADOPTION				
E1. Does the plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))		Pending approval		

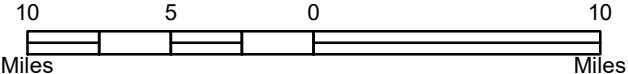
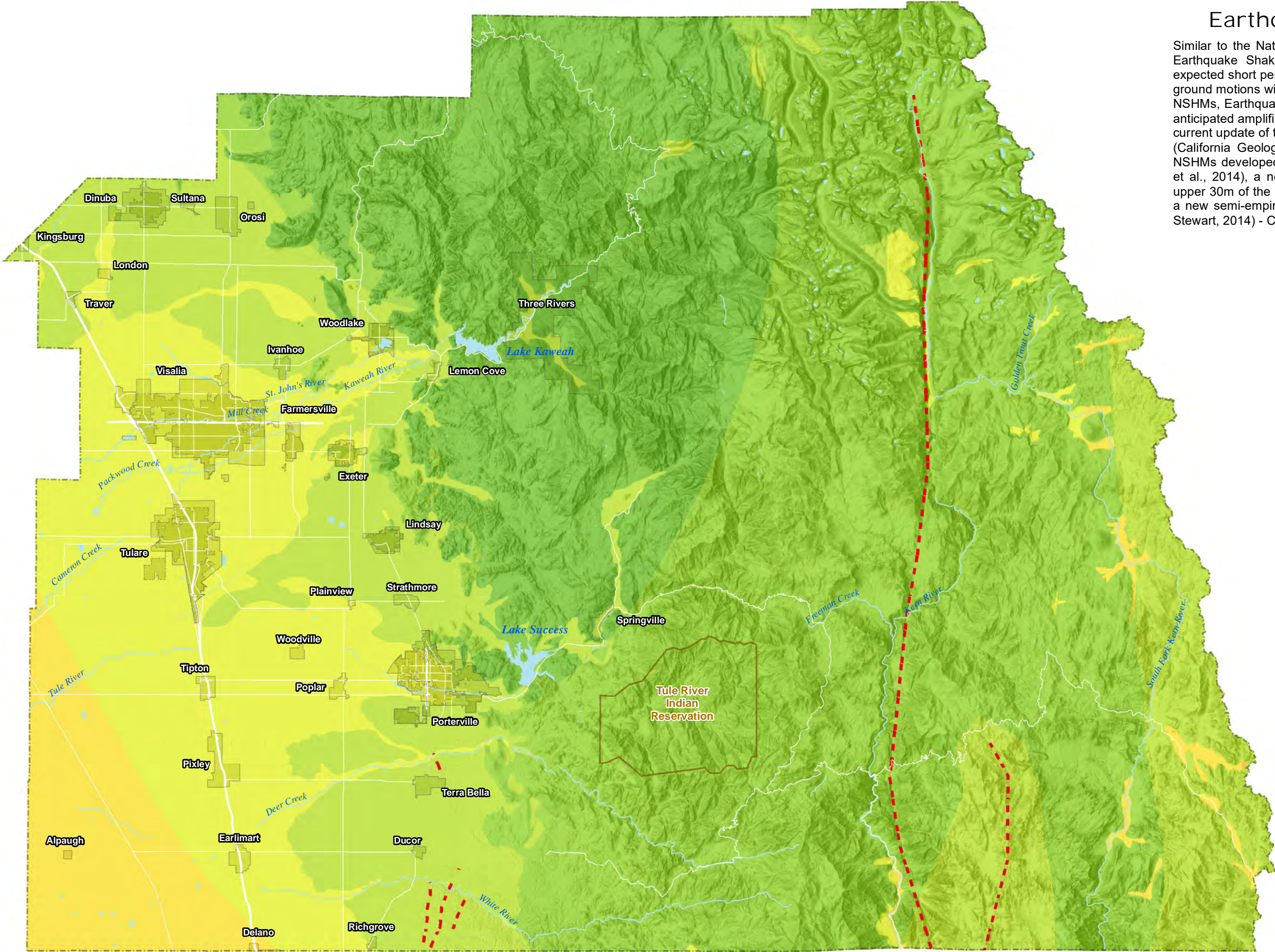
1. REGULATION CHECKLIST		Location in Plan	
Regulation (44 CFR 201.6 Local Mitigation Plans)	(section and/or page number)	Met	Not Met
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	Pending approval		
<u>ELEMENT E: REQUIRED REVISIONS</u>			
ELEMENT F. ADDITIONAL STATE REQUIREMENTS			
(Optional for State Reviewers only; not to be completed by FEMA)			
F1.			
F2.			
<u>ELEMENT F: REQUIRED REVISIONS</u>			

Earthquake Shaking Potential

Similar to the National Seismic Hazard Maps (NSHM) by USGS, the Earthquake Shaking Potential Maps for California by CGS depict expected short period (0.2s or 5hz) and intermediate period (1s or 1hz) ground motions with 2% exceedance probability in 50 years. Unlike the NSHMs, Earthquake Shaking Potential Maps for California incorporate anticipated amplification of ground motions by local soil conditions. The current update of the Earthquake Shaking Potential Maps for California (California Geological Survey Map Sheet 48) is based on the 2014 NSHMs developed by the United States Geological Survey (Petersen et al., 2014), a new map of the average shear wave velocity in the upper 30m of the earth's surface for California (Wills et al., 2015), and a new semi-empirical nonlinear site amplification model (Seyhan and Stewart, 2014) - Credit: CGS.



Note: Both City Limit (darker) and Urban Development Boundaries (lighter) are displayed.



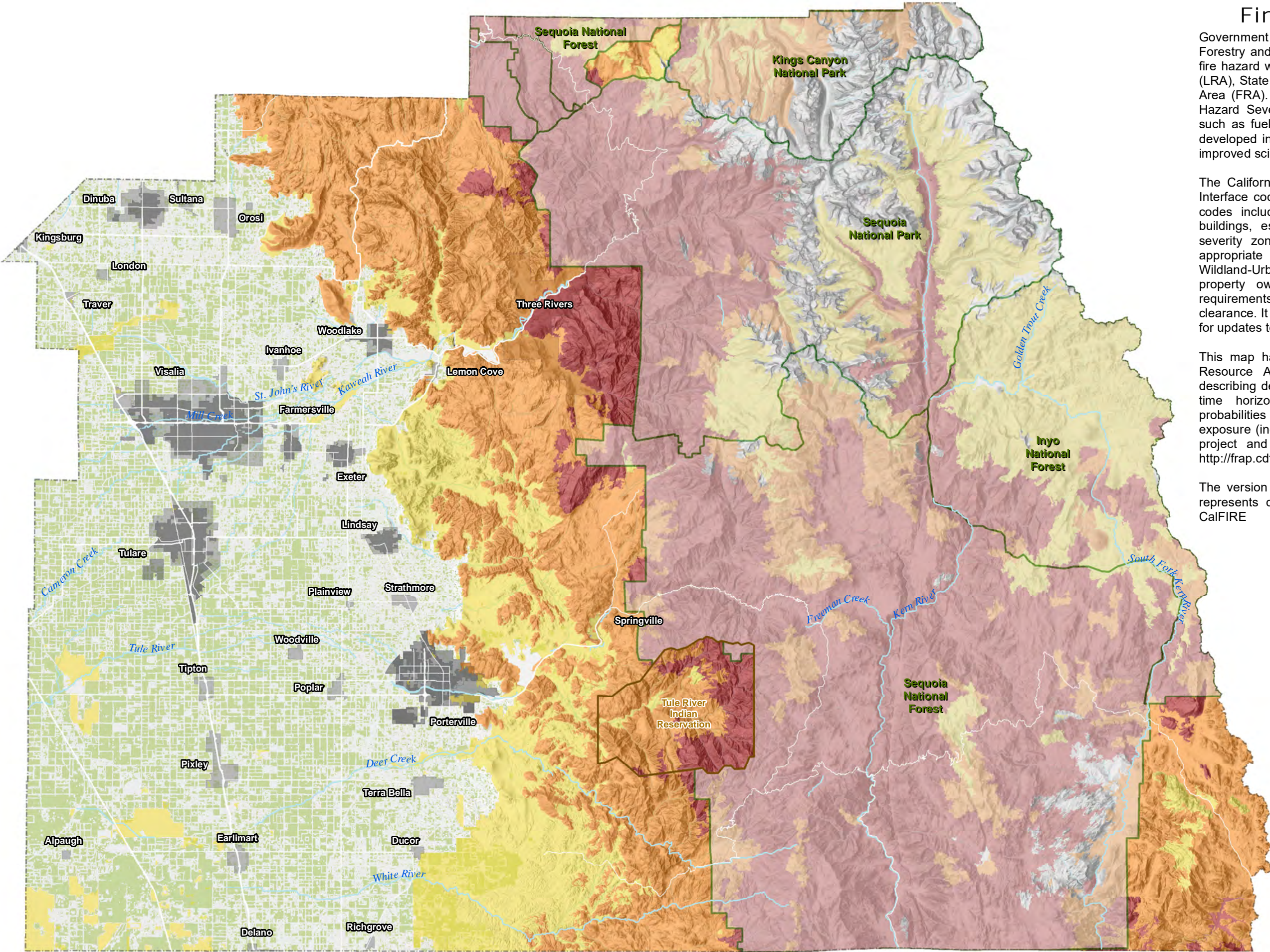
Fire Hazard Severity Zones

Government Code 51175-89 direct the California Department of Forestry and Fire Protection (CalFIRE) to map areas of very high fire hazard within the state and includes Local Responsibility Area (LRA), State Responsibility Area (SRA), and Federal Responsibility Area (FRA). Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on relevant factors such as fuels, terrain, and weather. VHFHSZ maps were initially developed in the mid-1990s but are now being updated based on improved science, mapping techniques, and data.

The California Building Commission adopted the Wildland-Urban Interface codes in late 2005 to be effective in 2008. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. The updated fire hazard severity zones will be used by building officials to determine appropriate construction materials for new buildings in the Wildland-Urban Interface. The updated zones will also be used by property owners to comply with natural hazards disclosure requirements at time of property sale and 100-foot defensible space clearance. It is likely that the fire hazard severity zones will be used for updates to the safety element of general plans.

This map has been created using data from CalFIRE's Fire & Resource Assessment Program (FRAP) which uses models describing development patterns, potential fuels over a 30-50 year time horizon, expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to new construction. Details on the project and specific modeling methodology can be found at <http://frap.cdf.ca.gov/projects/hazard/methods.htm>.

The version dated September 17, 2007 of the map shown here represents draft VHFHSZs within LRA, SRA, and FRA. Credit: CalFIRE



Fire Hazard Severity Zone

- Very High
- High
- Moderate
- Agriculture
- Tule River Reservation
- National Forest

Note: both City limit (darker) and Urban Development Boundary (lighter) are displayed.



Special Flood Hazard Area

Special Flood Hazard Areas (SFHA) are identified by the FEMA National Flood Insurance Program (NFIP) as an area with special flood, mudflow, or flood related erosion hazard, as shown on a Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map. FHBM and FRIM denote classifications, or zones, for flood risk. Areas of Special Flood Hazard include the following Zones: A, AO, A1-A30, AE, A99, AH, AR, AR/A, AR/AE, AR/AH, AR/AO, AR/A1-A30, V1-V30 or V.

SFHAs are areas subject to inundation by the one percent annual chance flood. The one percent annual flood (100-year flood), also known as the base flood, is the flood that has a one percent chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the one percent annual chance flood.

Zone A: No Base Flood Elevations determined.

Zone AE: Base Flood Elevations determined.

Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

Zone AR: Special Flood Hazard Area formerly protected from the 1 % annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1 % annual chance or greater flood.

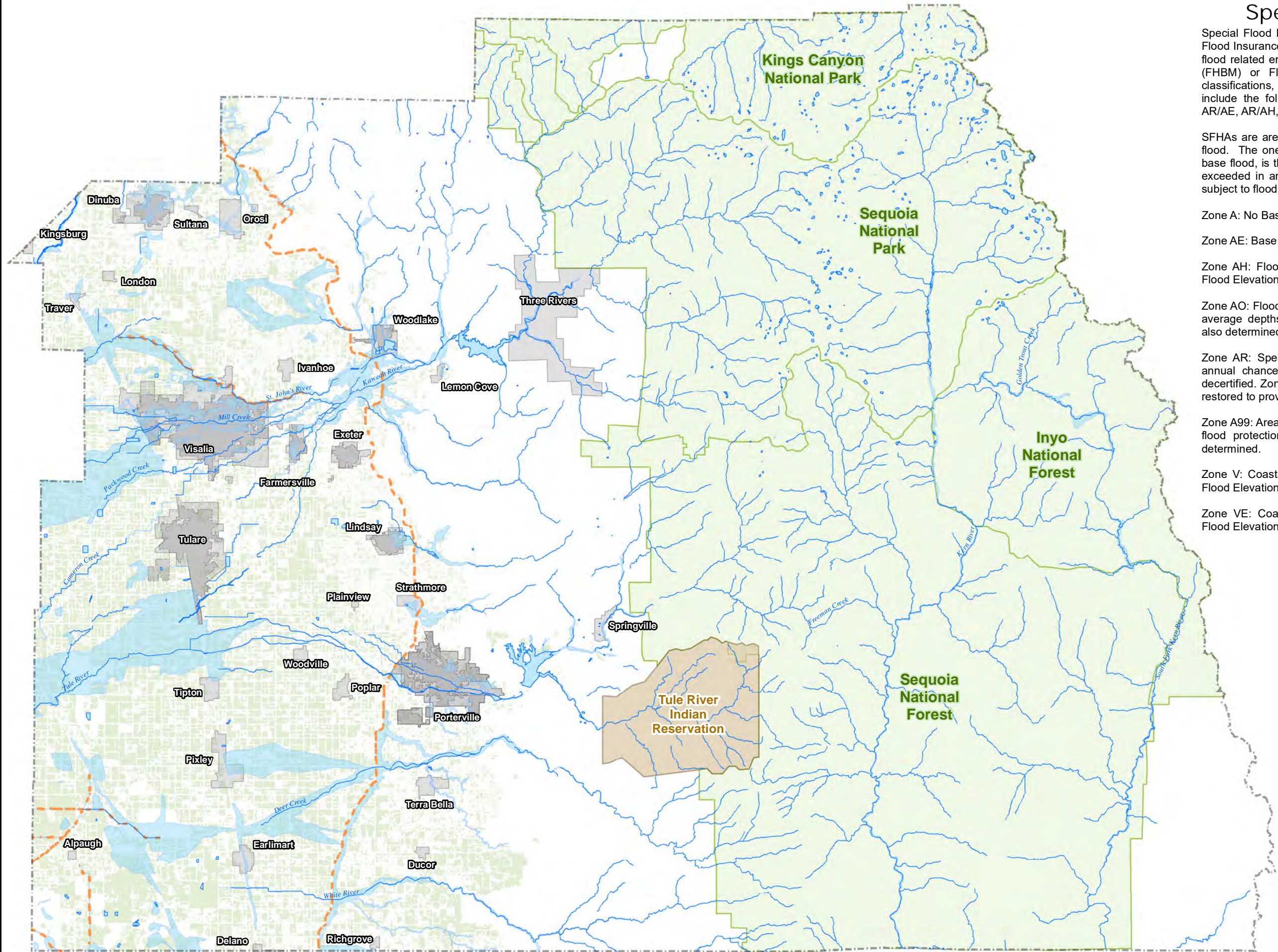
Zone A99: Area to be protected from 1 % annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

Zone V: Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

Zone VE: Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

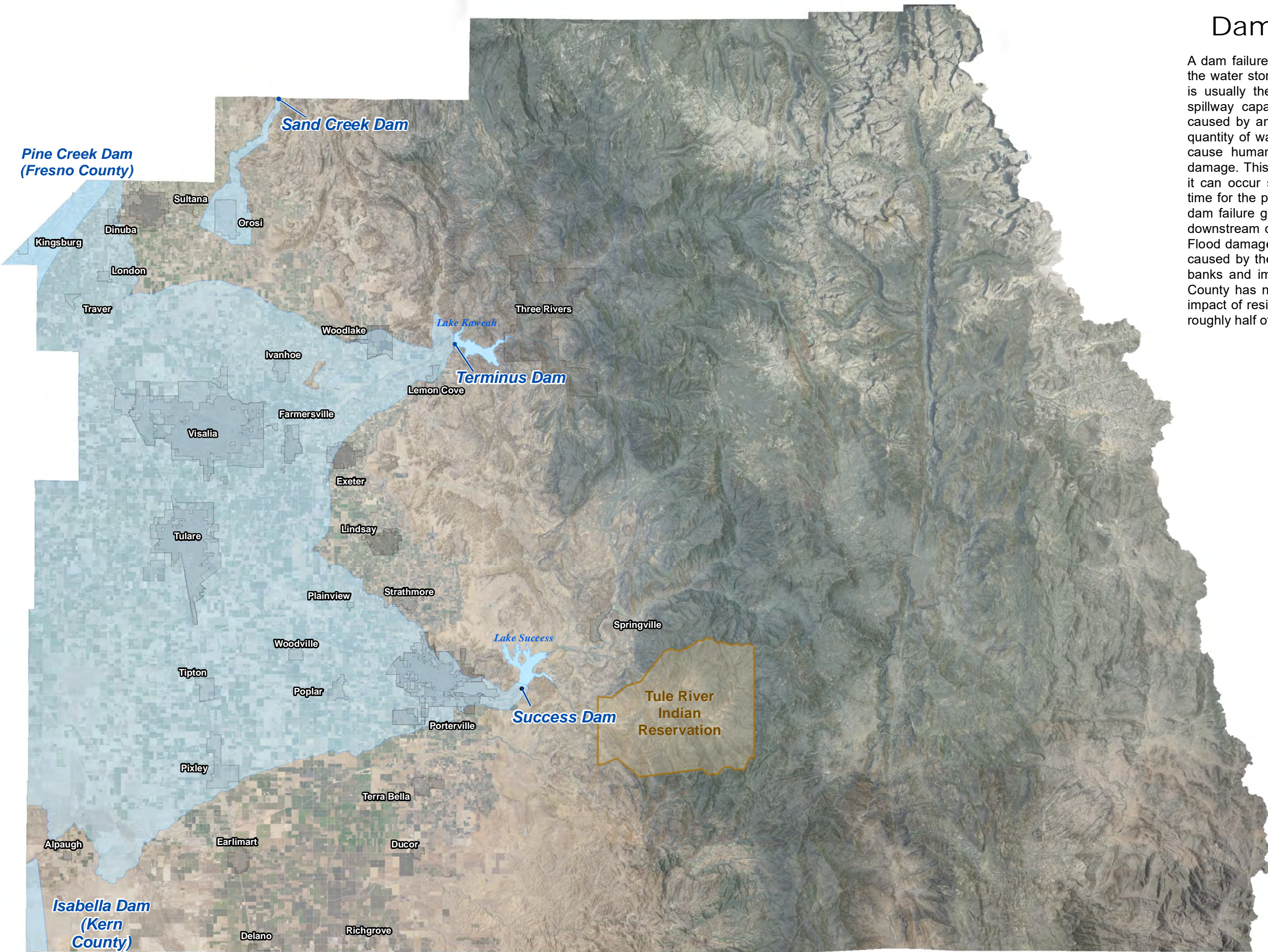
- Flood Inundation
- Levee
- Agriculture
- Tule River Reservation
- National Forest

Note: both City limit (darker) and Urban Development Boundary (lighter) are displayed.



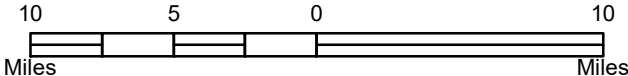
Dam Failure Inundation

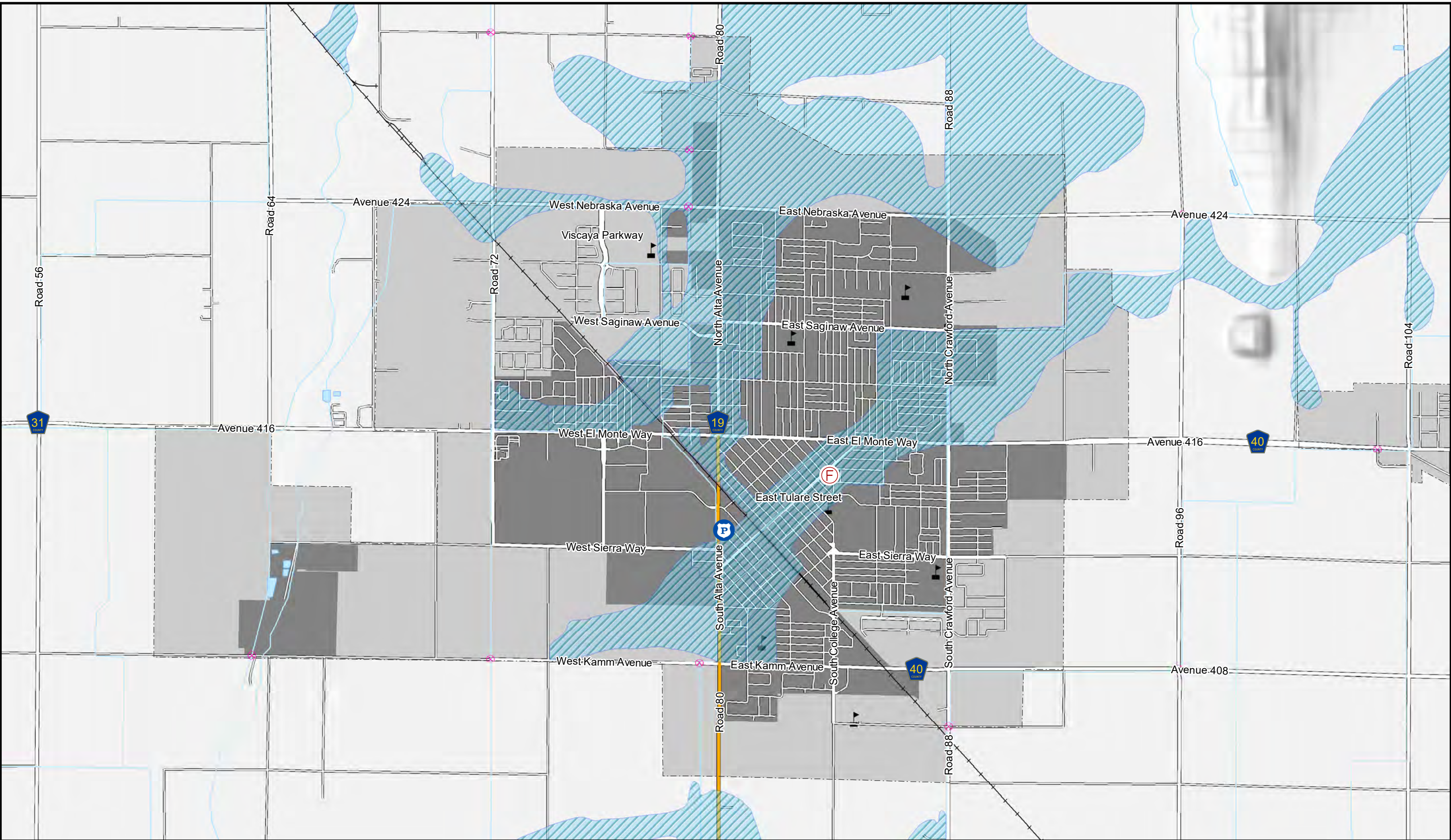
A dam failure is the structural collapse of a dam that releases the water stored in the reservoir behind the dam. A dam failure is usually the result of the age of the structure, inadequate spillway capacity used in construction, or structural damage caused by an earthquake or flood. When a dam fails, a large quantity of water is suddenly released with a great potential to cause human casualties, economic loss, and environmental damage. This type of disaster is especially dangerous because it can occur suddenly, providing little warning and evacuation time for the people living downstream. The flows resulting from dam failure generally are much larger than the capacity of the downstream channels and therefore lead to extensive flooding. Flood damage occurs as a result of the momentum of the flood caused by the sediment-laden water flooding over the channel banks and impact debris carried by the flow. To date, Tulare County has not experienced a dam failure. The estimated for impact of residents for a failure at Terminus Dam is 255,237 or roughly half of the county's entire population.



- Dam Inundation Area
- Tule River Reservation

Note: both City limit (darker) and Urban Development Boundary (lighter) are displayed.

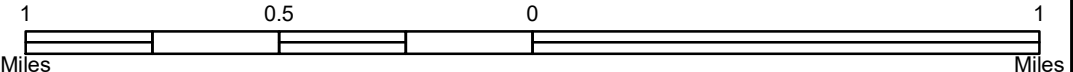


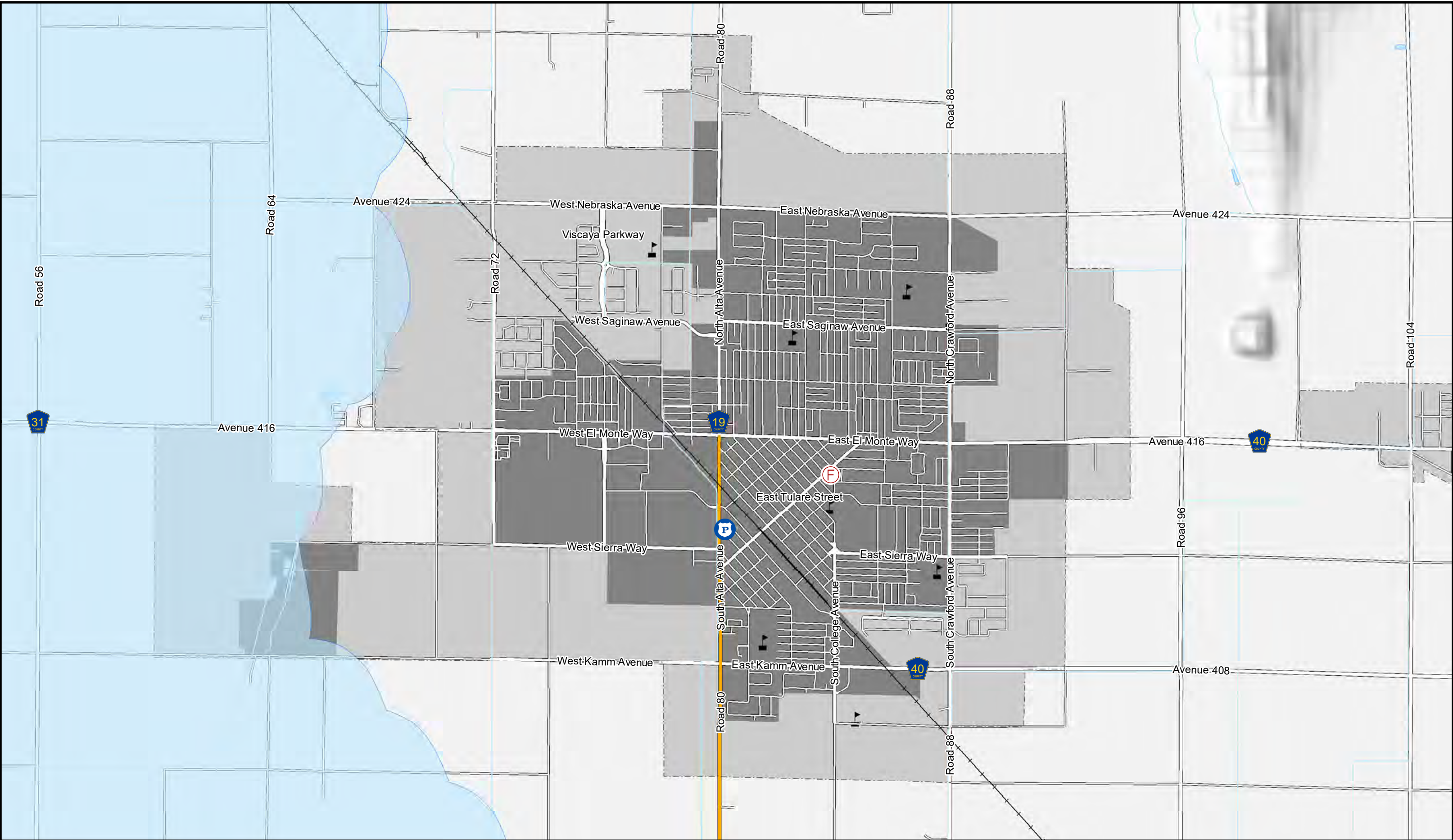


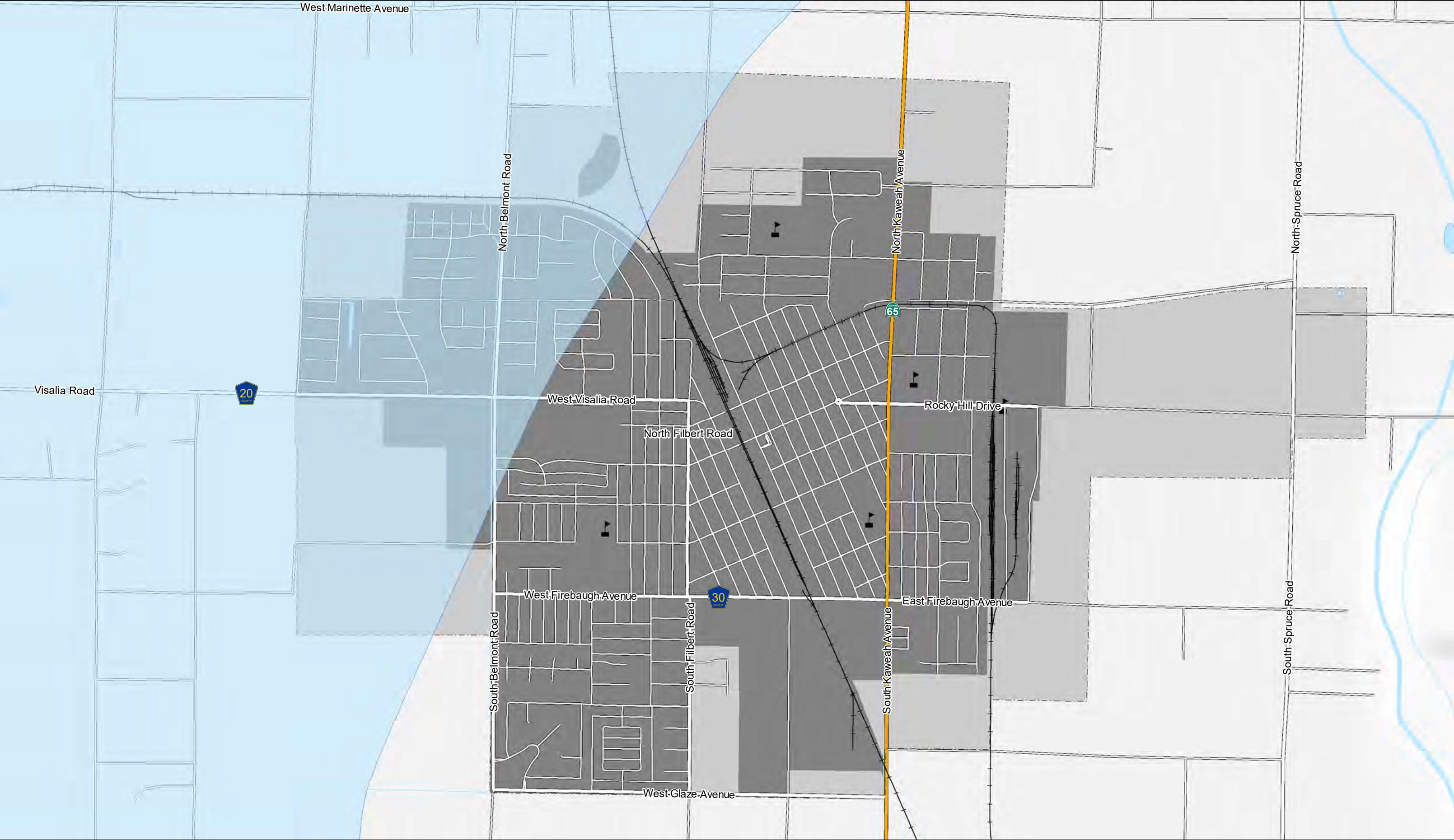
Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan

City of Dinuba Special Flood Hazard Area

Scale: 1 inch = 0.38 miles
Projection: Lambert Conformal Conic
Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)
Data: Tulare County, FEMA, USGS, USDA, US Census







Railroad

Dam Inundation Area

Urban Development Boundary

City Limit

Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan

City of Exeter Dam Inundation

Scale: 1 inch = 0.22 miles

Projection: Lambert Conformal Conic

Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)

Data: Tulare County, FEMA, USGS, USDA, US Census

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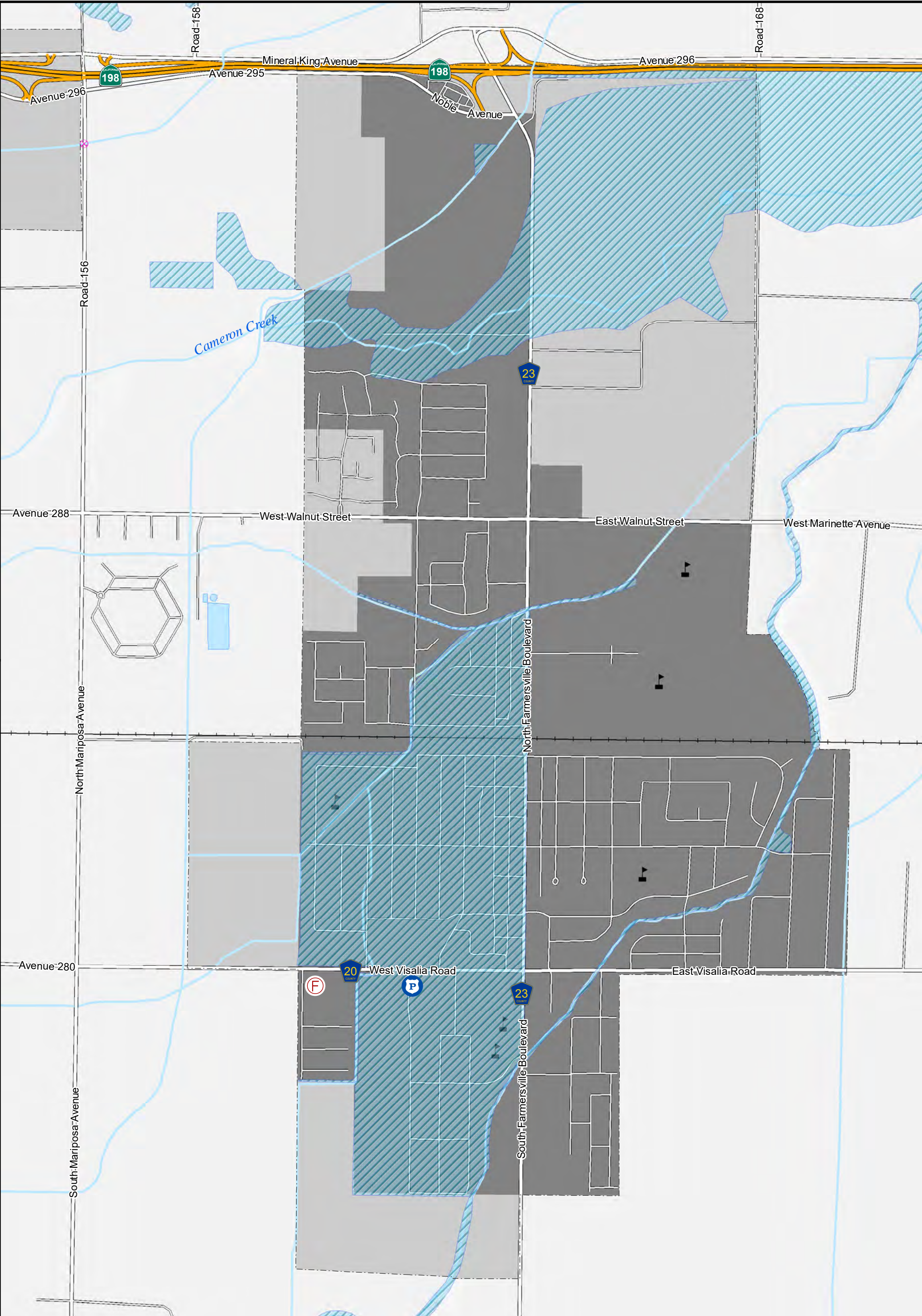
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Miles


Miles


N


B-9




 Railroad

 Culverts

 Flood Inundation

 Urban Development Boundary

 City Limit

Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan

City of Farmersville Special Flood Hazard Area

Scale: 1 inch = 0.19 miles

Projection: Lambert Conformal Conic

Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)

Data: Tulare County, FEMA, USGS, USDA, US Census

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
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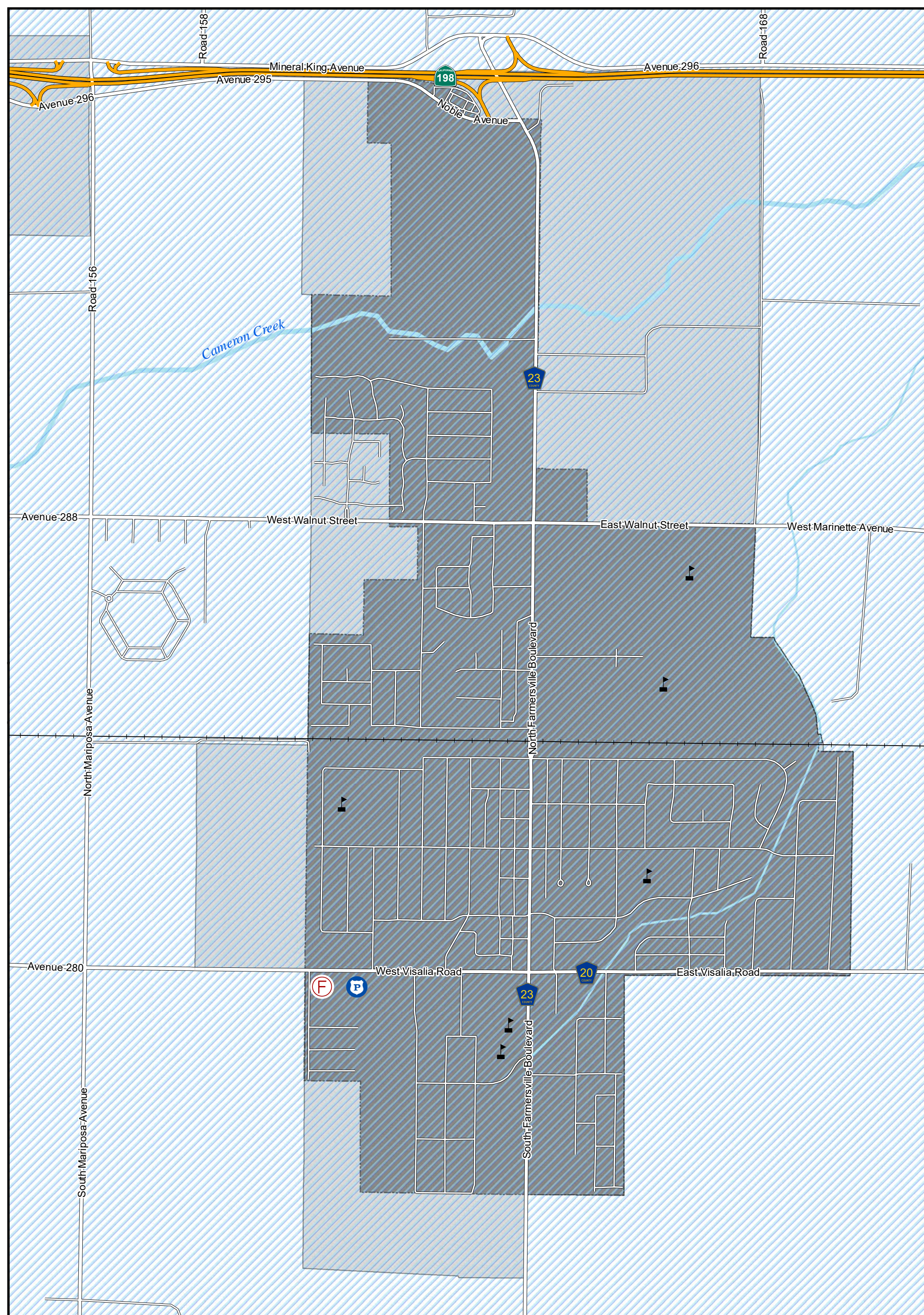
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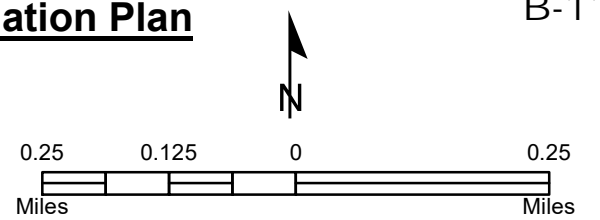
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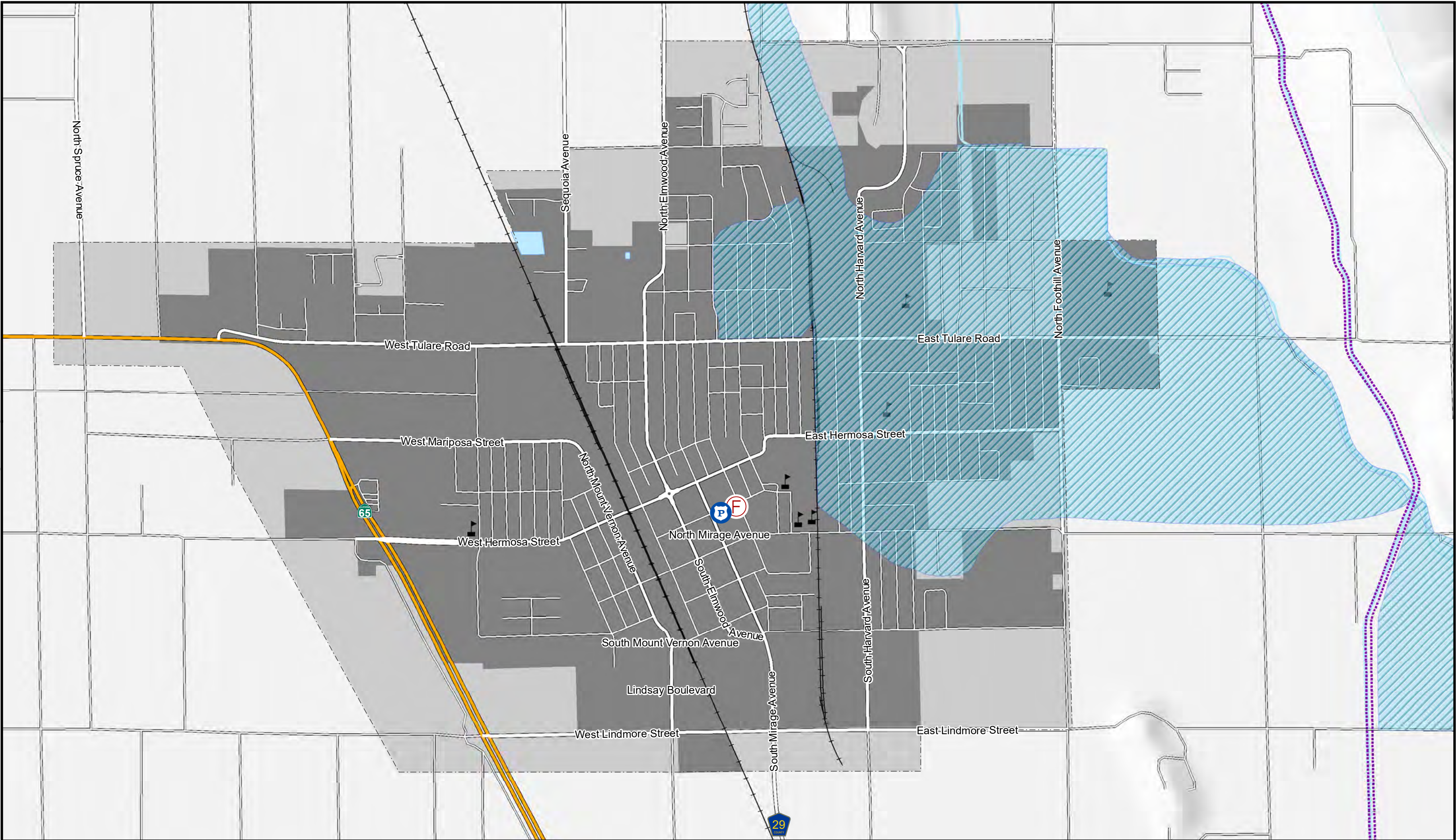
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





Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan
City of Farmersville Dam Inundation

Scale: 1 inch = 0.19 miles
Projection: Lambert Conformal Conic
Coordinate System: NAD 1983 State Plane California IV FIPS 0404 (feet)
Data: Tulare County, USACE, URS, USGS, USDA, US Census

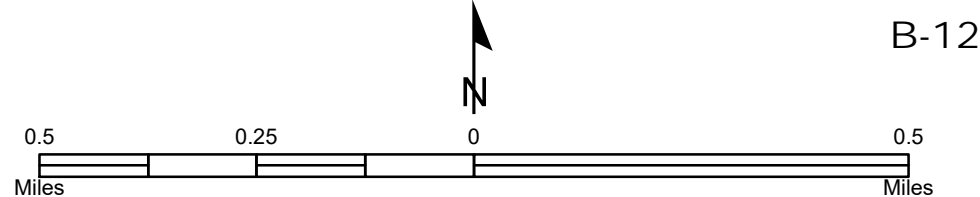


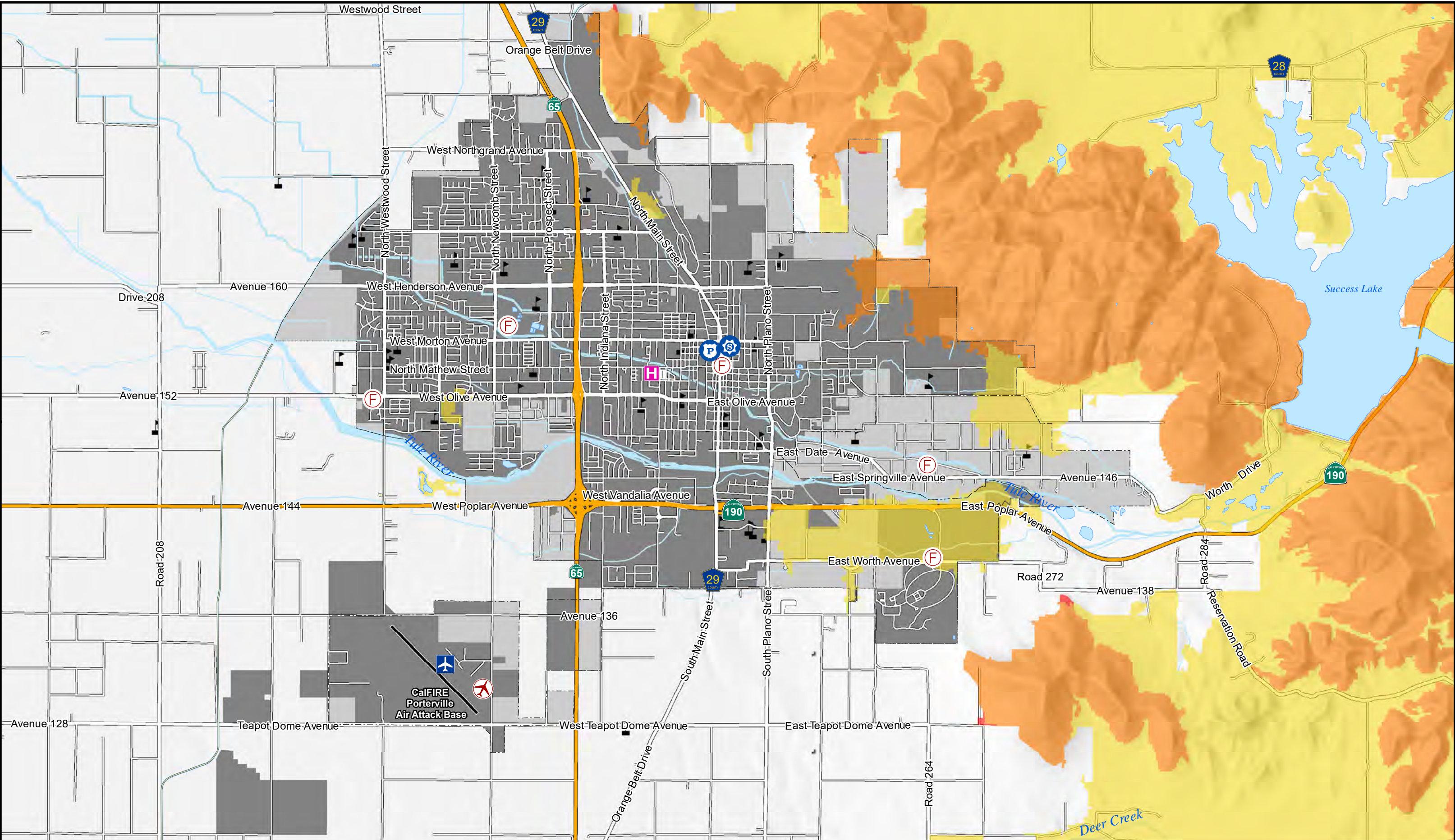


Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan
City of Lindsay Special Flood Hazard Area

-  Railroad
-  Urban Development Boundary
-  City Limit
-  Culverts
-  Levee
-  Flood Inundation

Scale: 1 inch = 0.22 miles
Projection: Lambert Conformal Conic
Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)
Data: Tulare County, FEMA, USGS, USDA, US Census





Fire Hazard Severity Zone

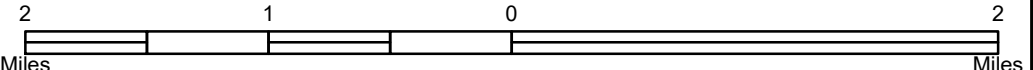
- Very High
- High
- Moderate

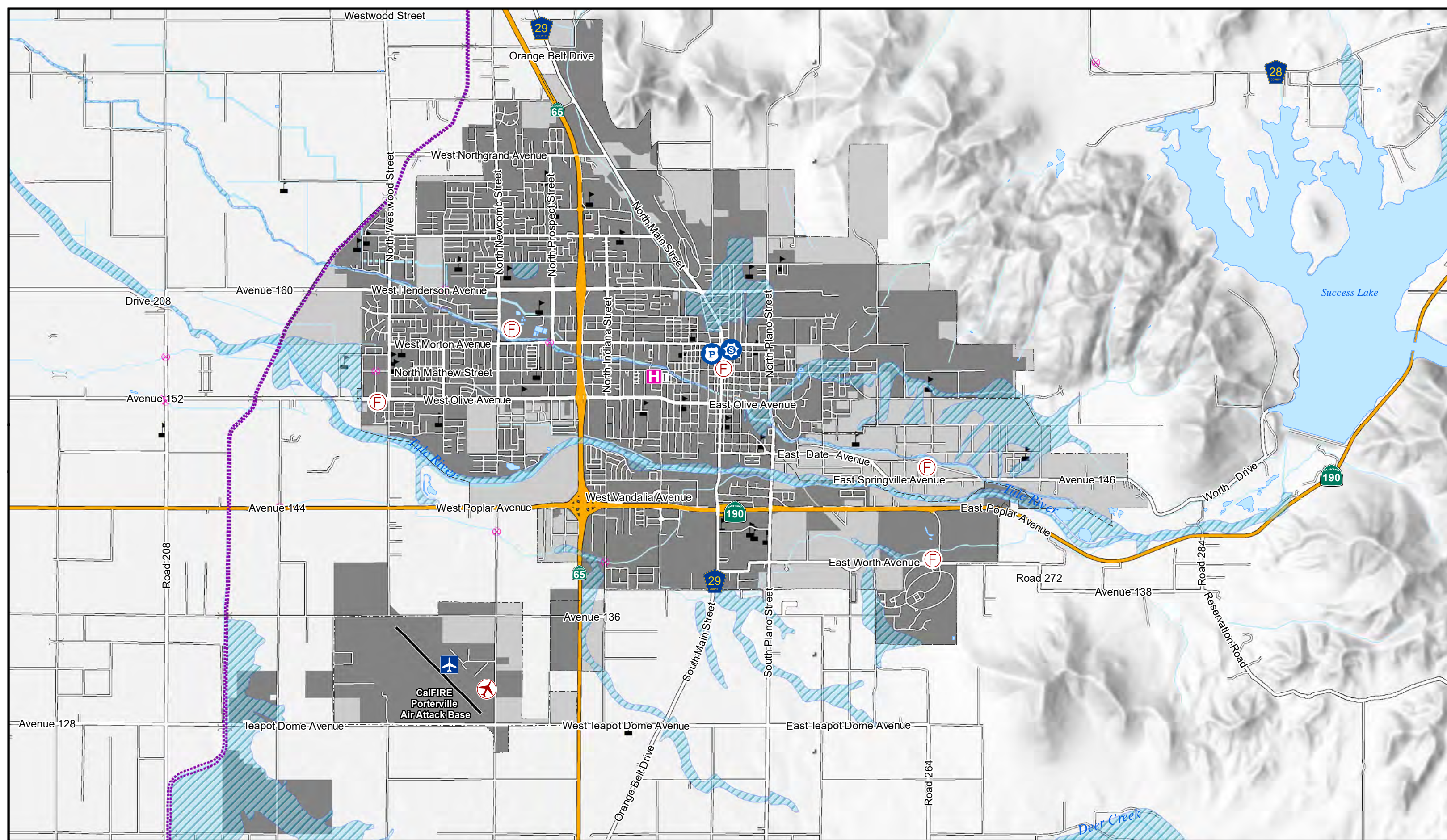
- Railroad
- Urban Development Boundary
- City Limit

Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan

City of Porterville Fire Hazard Severity Zone

Scale: 1 inch = 0.79 miles
Projection: Lambert Conformal Conic
Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)
Data: Tulare County, CalFIRE, USGS, USDA, US Census



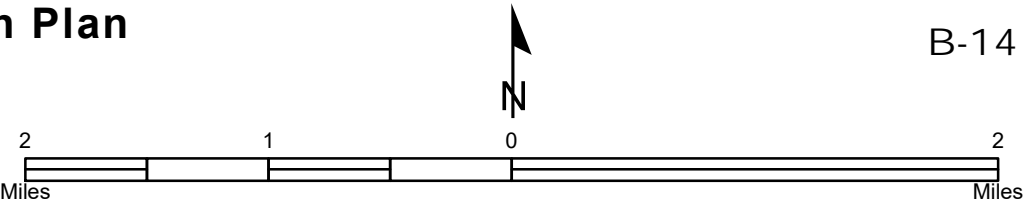


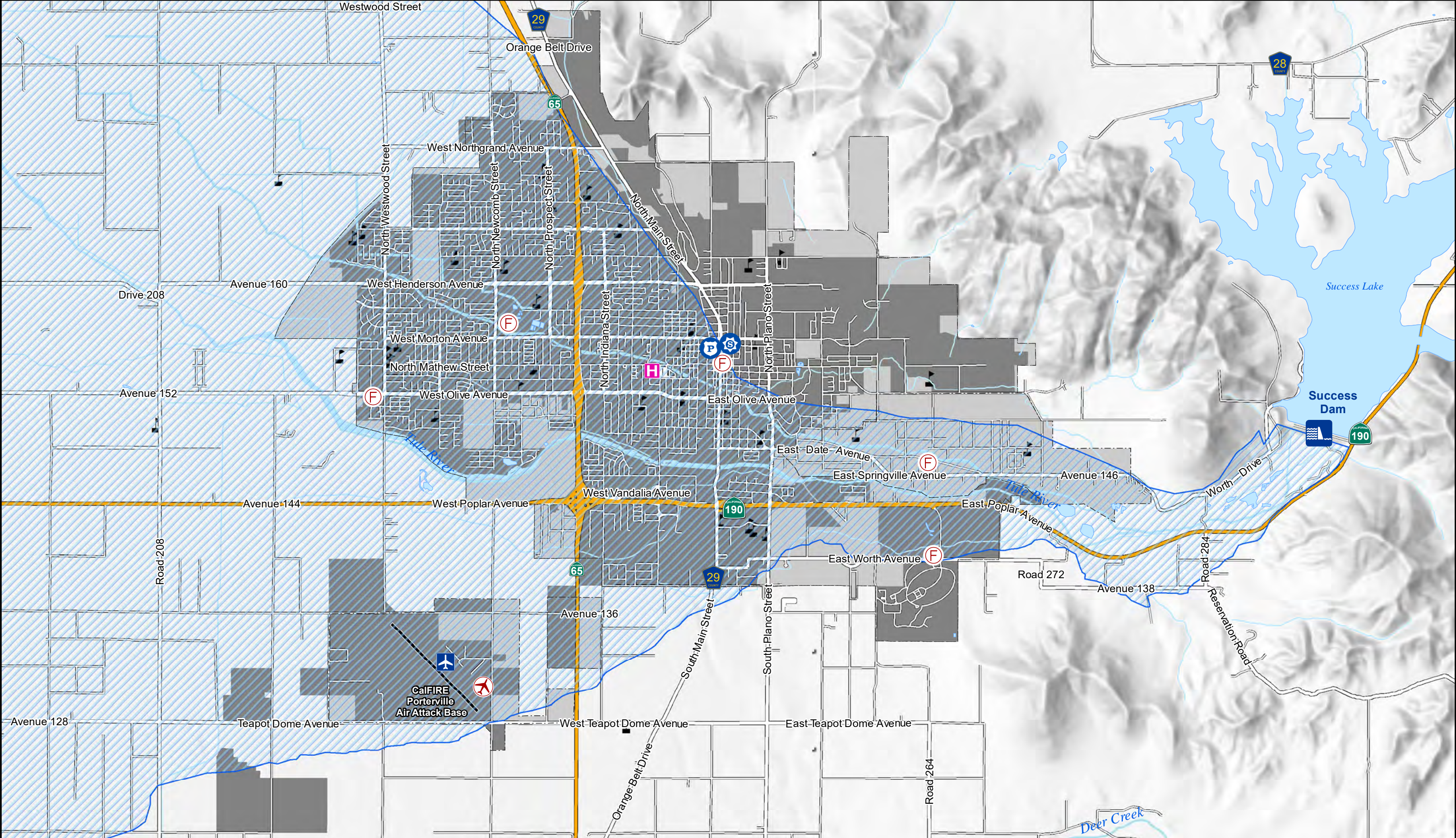
Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan
City of Porterville Special Flood Hazard Area

B-14

- Railroad
- Urban Development Boundary
- City Limit
- Culverts
- Levee
- Flood Inundation

Scale: 1 inch = 0.79 miles
Projection: Lambert Conformal Conic
Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)
Data: Tulare County, FEMA, USGS, USDA, US Census



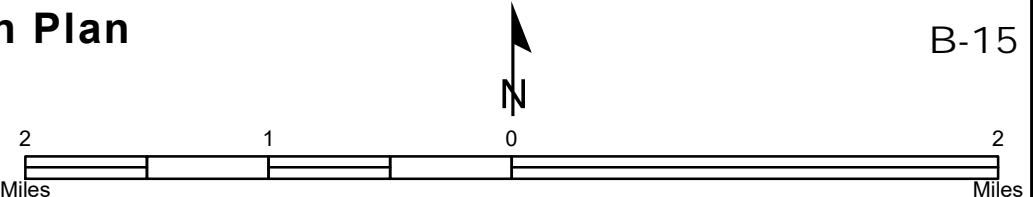


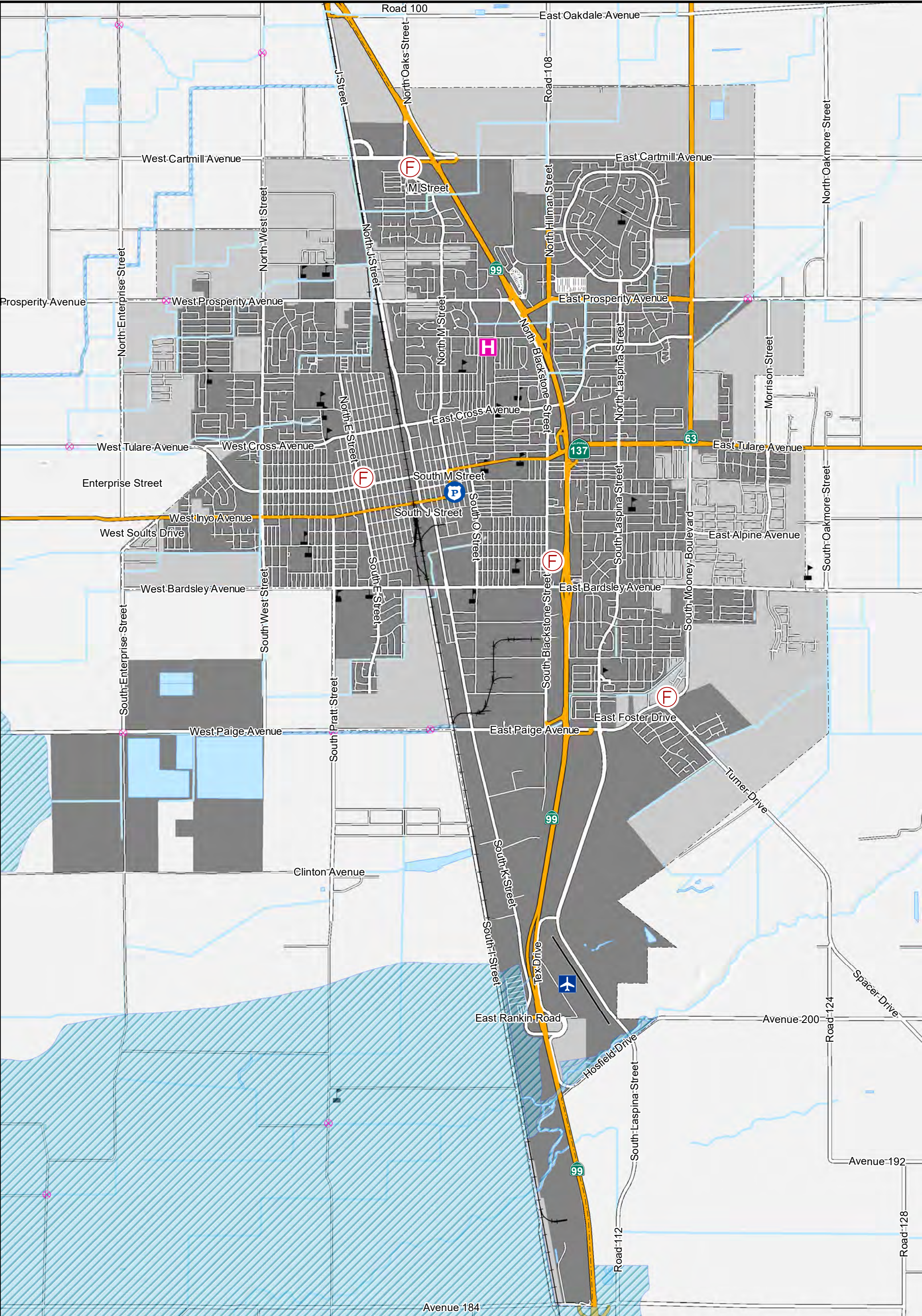
- Railroad
- Dam Inundation Area
- Urban Development Boundary
- City Limit

Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan

City of Porterville Success Dam Inundation

Scale: 1 inch = 0.79 miles
Projection: Lambert Conformal Conic
Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)
Data: Tulare County, USACE, URS, USGS, USDA, US Census





Railroad

Culverts

Flood Inundation

Urban Development Boundary

City Limit

Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan

City of Tulare Special Flood Hazard Area

Scale: 1 inch = 0.6 miles

Projection: Lambert Conformal Conic

Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)

Data: Tulare County, FEMA, USGS, USDA, US Census

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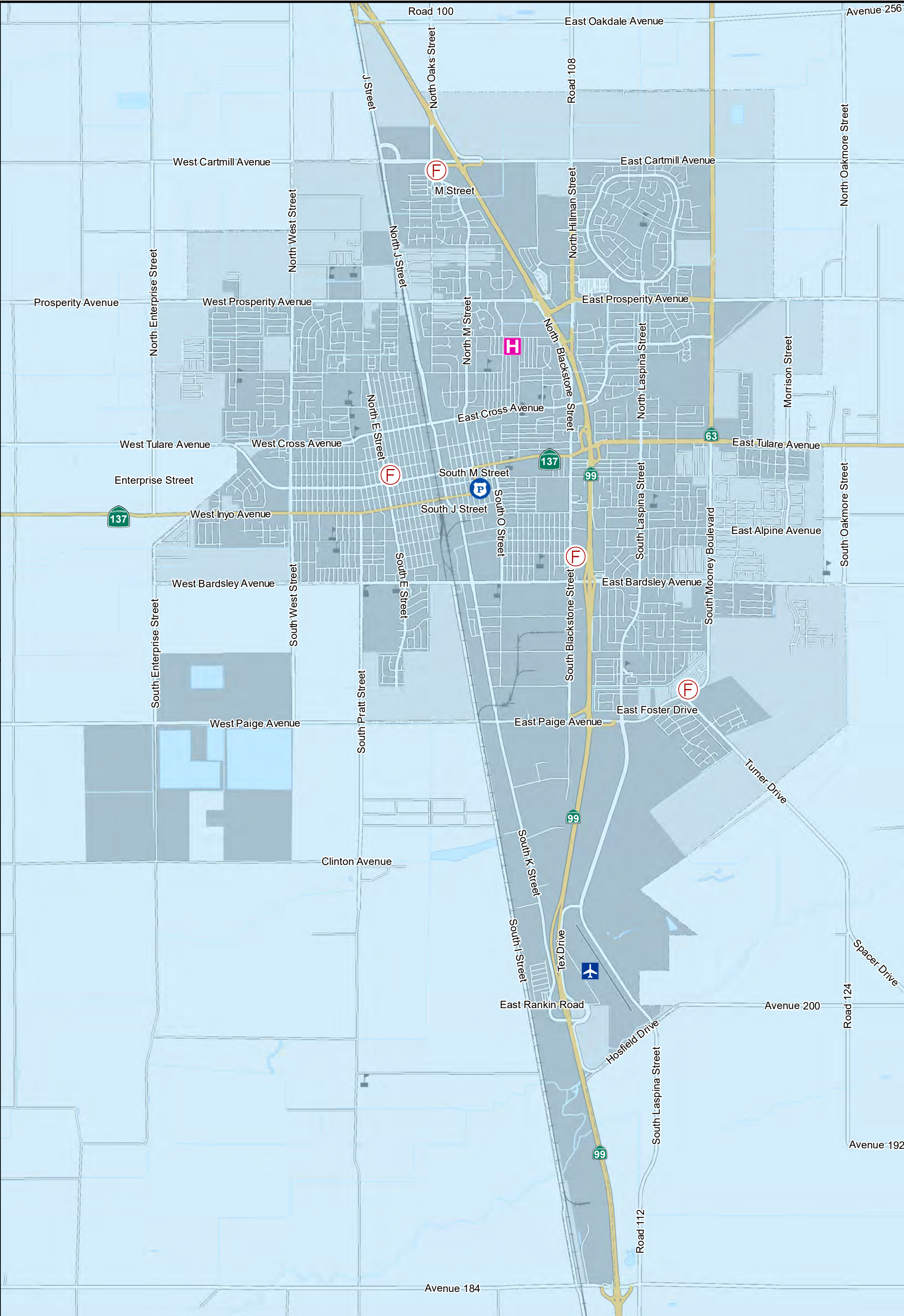
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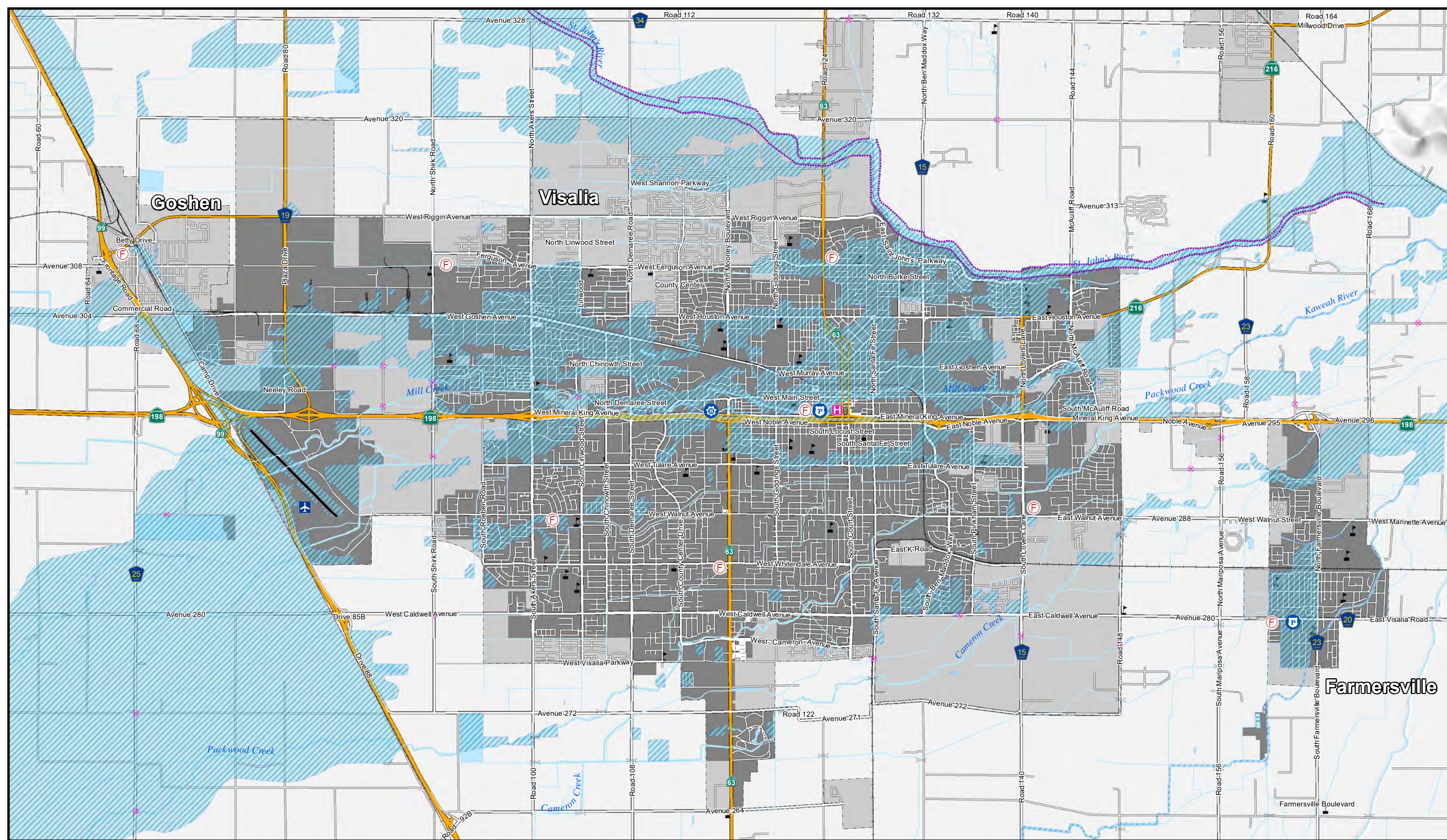
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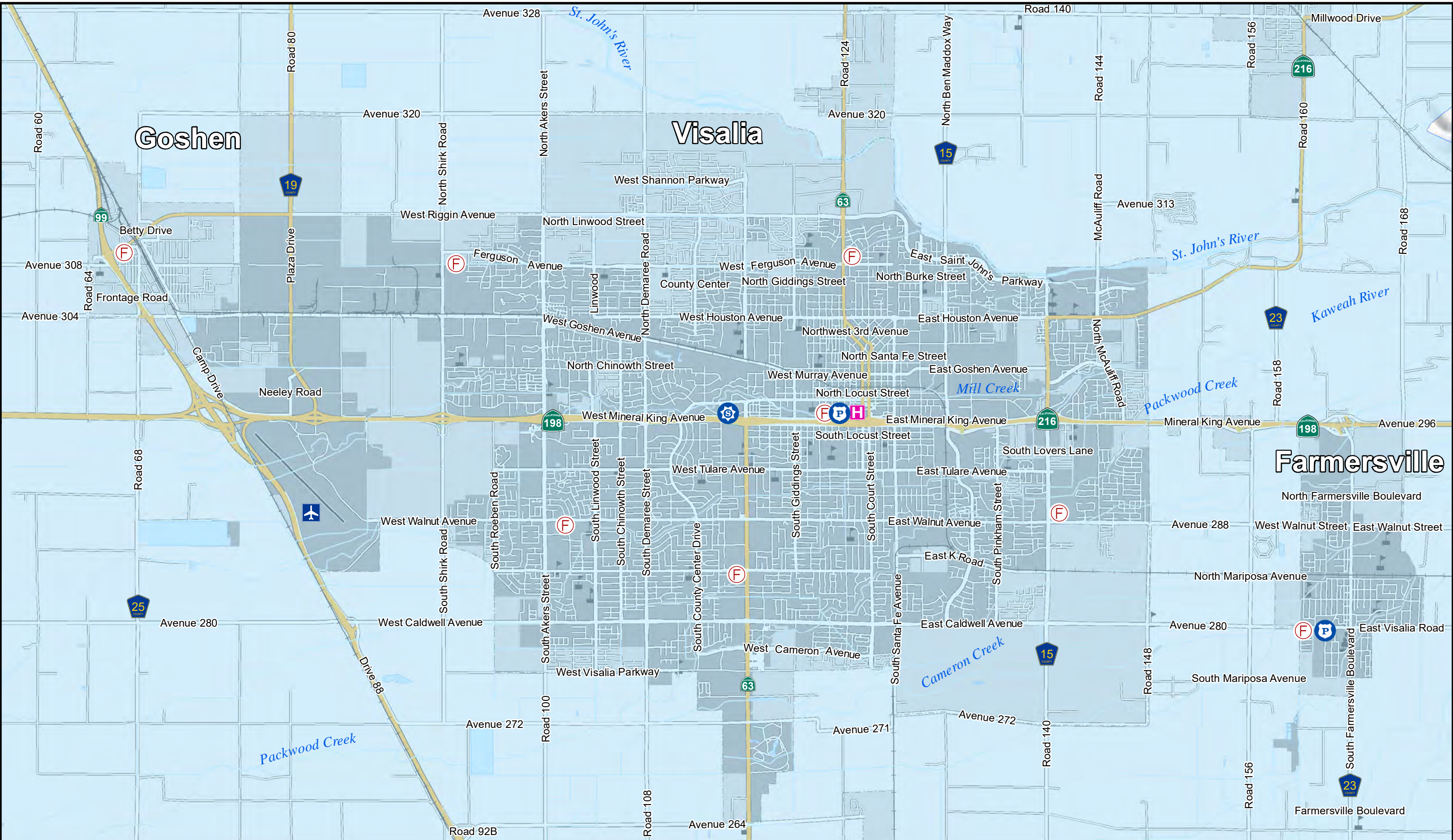
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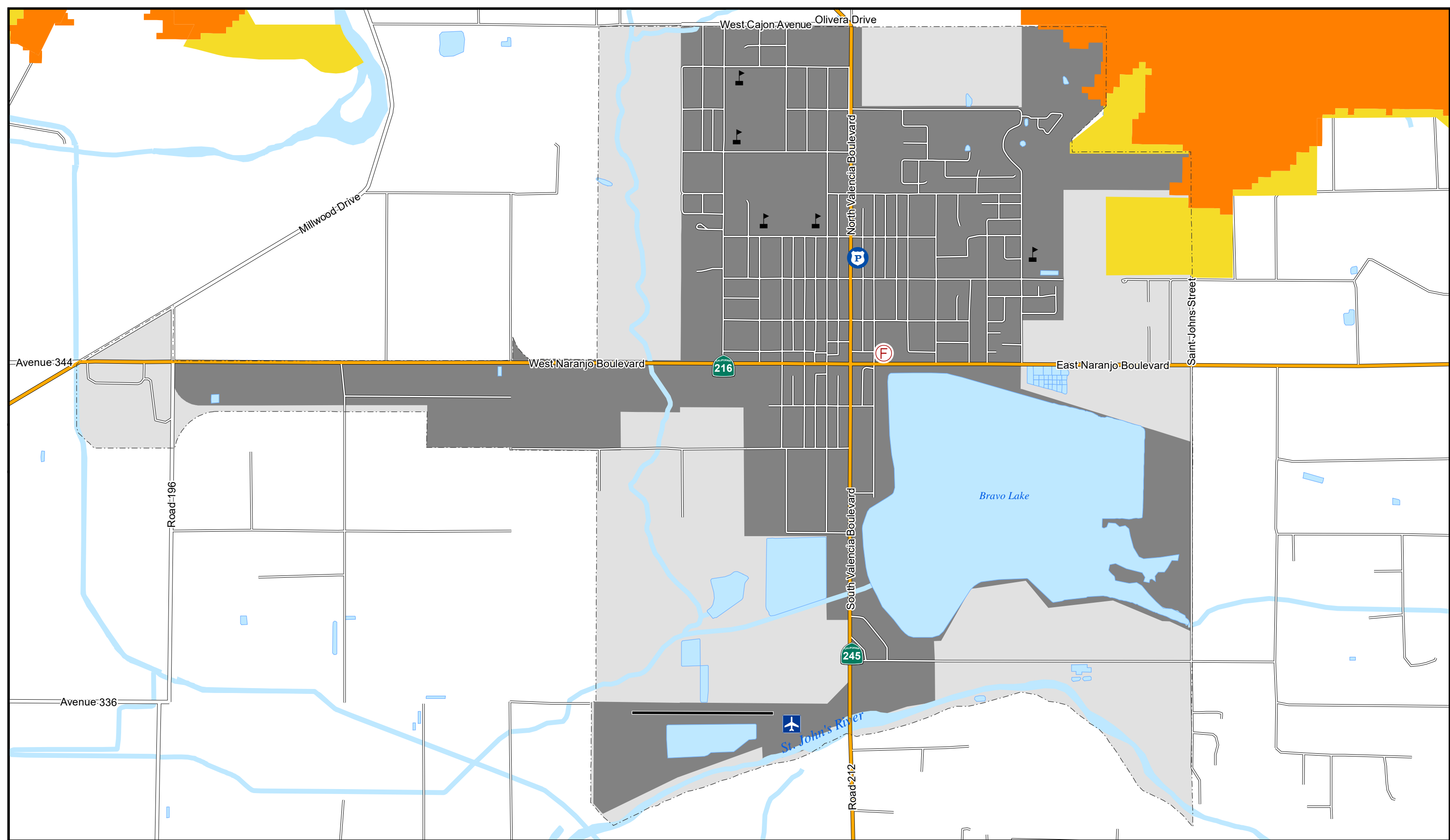
Miles

B-16









Fire Hazard Severity Zone



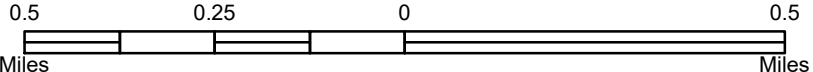
Very High
High
Moderate

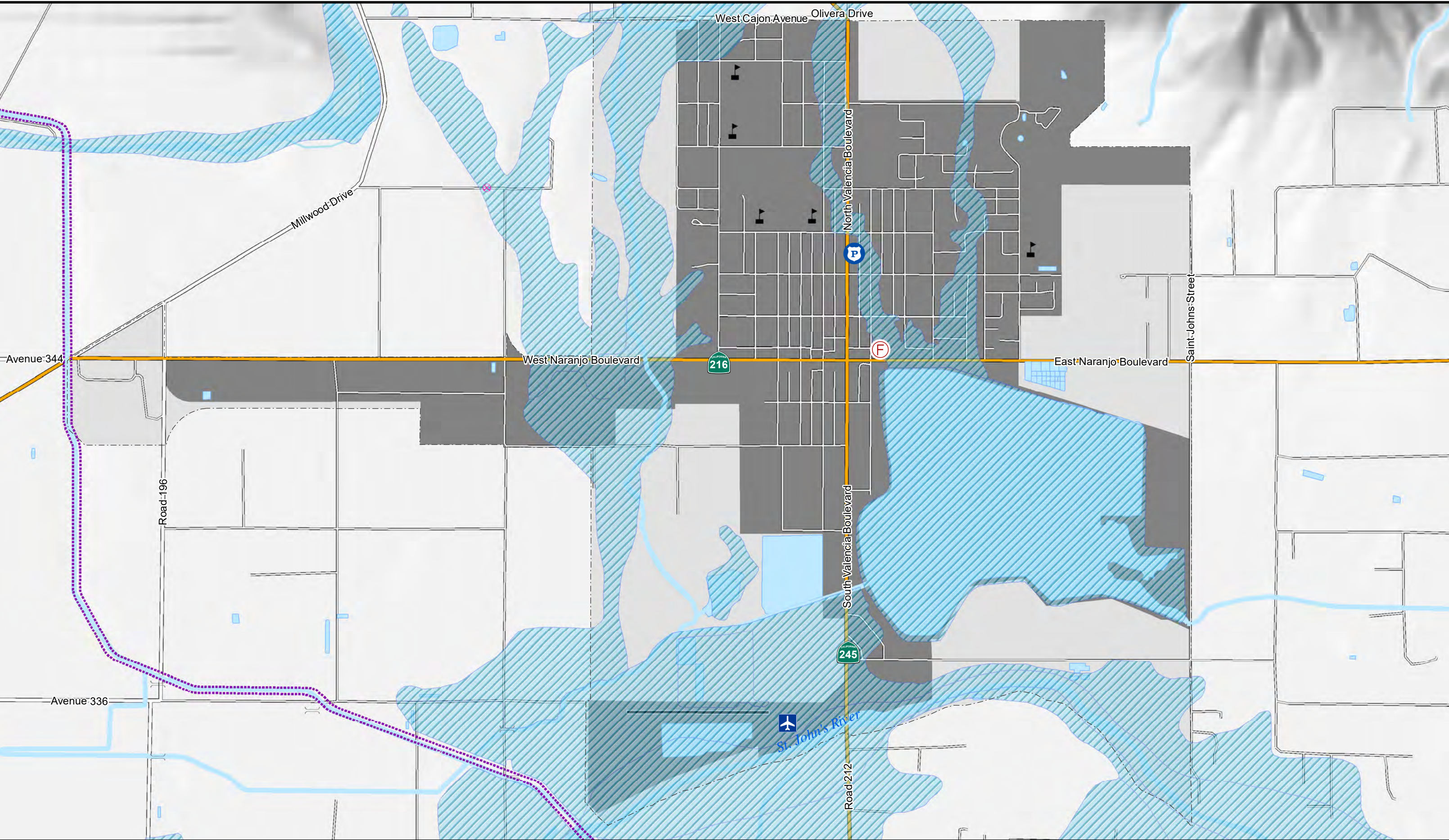


Railroad
Urban Development Boundary
City Limit

Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan
City of Woodlake Fire Hazard Severity Zones

Scale: 1 inch = 0.25 miles
Projection: Lambert Conformal Conic
Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)
Data: Tulare County, CalFIRE, USGS, USDA, US Census



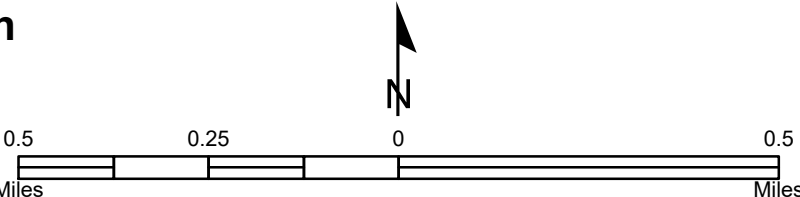


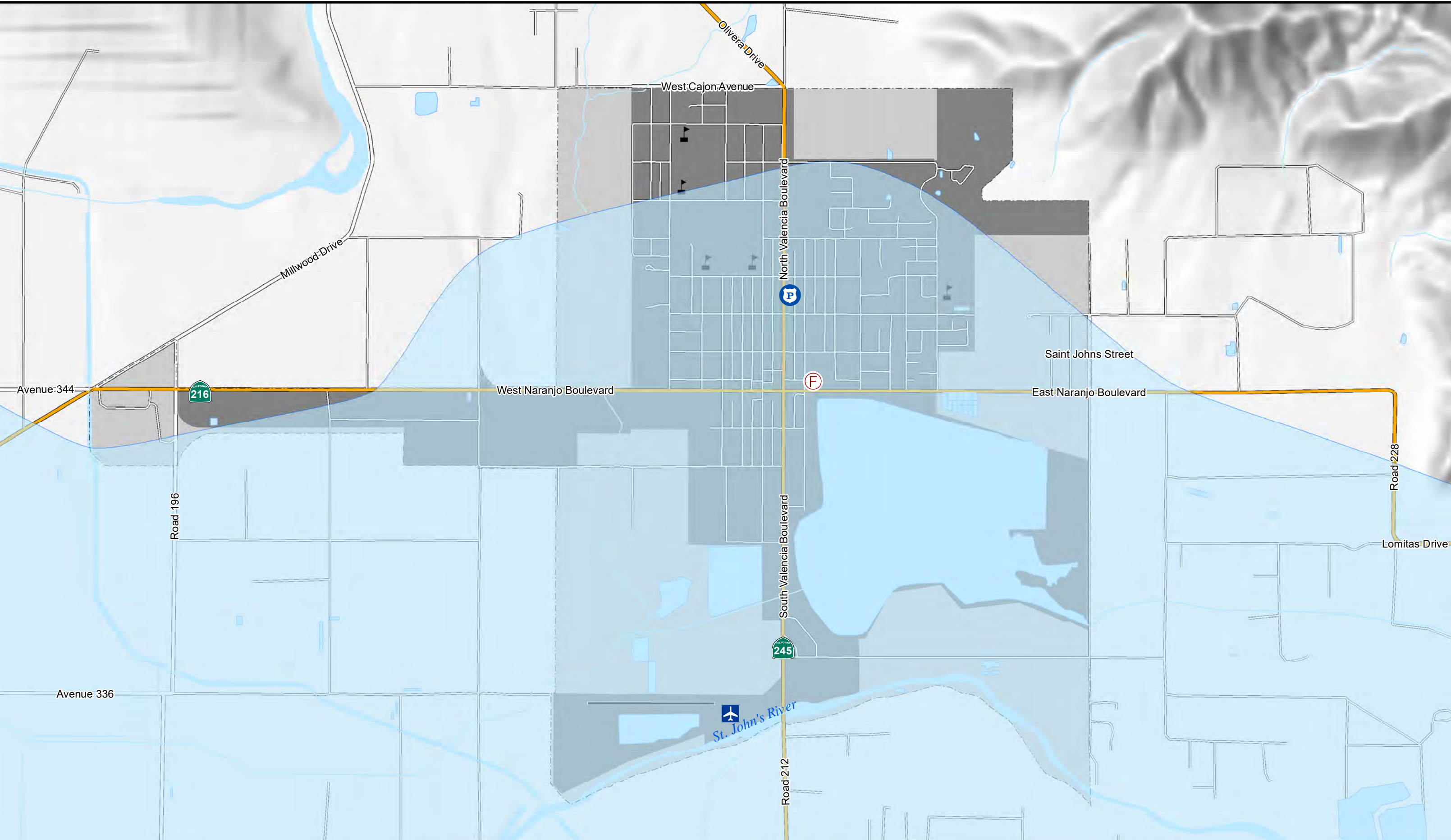
Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan
City of Woodlake Special Flood Hazard Area

B-21

- Railroad
- Urban Development Boundary
- City Limit
- Culverts
- Levee
- Flood Inundation

Scale: 1 inch = 0.25 miles
Projection: Lambert Conformal Conic
Coordinate System: NAD 1983 State Plane CA IV FIPS 0404 (ft.)
Data: Tulare County, FEMA, USGS, USDA, US Census





2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D
Planning Process Documentation

Appendix C Wildfire Table

Name	Start Date	Acres Affected (1)	Name	Start Date	Acres Affected (1)
Case	1987	4,723	Alpaugh	2006	1,700
Lopez/Kern Company #8	1995	1,985	Kern 19 Cottonwood	2006	2,500
Oak Flat	1996	1,000	Grouse	2007	1,022
Kaweah	1996	4,479	Goldledge	2007	4,196
White Oak	1996	7,150	F#88 Shannon Inc.	2007	2,140
Castle Complex	1996	1,633	Honey Bee	2008	1,225
Coffee	1997	2,420	Clover	2008	15,300
Fernandez	1997	43,700	Hidden	2008	3,668
King (2)	2000	3,243	Lion	2009	3,988
Manter	2000	74,439	Granite	2009	1,417
Chance (2)	2000	1,200	Lion	2011	20,674
Borel	2002	3,430	George	2012	1,707
McNally	2002	150,696	Fish	2013	2,060
Cooney (TIA 2415)	2003	1,928	Soda	2014	1,612
NPS #6 Paradise	2003	1,298	Rough (3)	2015	151,623
Millwood	2005	2,600	Cabin Fire	2015	6,980
Pine	2005	1,600	Cedar (2)	2016	29,322

(1) Acres affected = total acreage.

(2) Fire occurred in both Tulare and Kern counties.

(3) Largest fire in California for year.

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Planning Process Documentation

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Appendix D Planning Process Documentation

Appendix D contains documentation of the planning process including meetings of the planning team. The planning process material is presented in chronological order along with a brief explanation of its contents. Key planning process events are summarized in **Table D-1**.

Table D-1: Planning Team Meeting Schedule		
Date	Activity	Purpose
September 1, 2016 Stakeholders were invited by Outlook email	Planning Team Meeting Nr. 1,	Kicked off the MJLHMP update project and solicit participation by stakeholder agencies
October 4, 2016 Data collection	Provided data collection tool template to all participating organizations. See example 17	Collect information on: <ul style="list-style-type: none"> • Incidents and declarations since last Plan • Update capabilities • Update facilities • Update previous mitigation activities.
November 29, 2016 Stakeholders were invited by Outlook email	Planning Team Meeting Nr. 2	Provided vulnerability and risk assessment guidance as a read ahead. Reviewed hazard analysis, discussed risk and vulnerability and identified capabilities.
January 17, 2017 Stakeholders were invited by Outlook email	Planning Team Meeting Nr. 3	Provided draft mitigation activities. Discussed mitigation implementation priorities and actions.
March 14, 2017 Stakeholders were invited by Outlook email	Planning Team Meeting Nr. 4	Review jurisdiction annexes. Prioritize County mitigation activities.
March 5, 2018	City of Woodlake	Reached out to the City to solicit input on past mitigation actions and new mitigation activities. The City's Community Development Manager provided input.
Various	Survey	Solicit public input

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

On September 1, 2016, the planning team held its initial meeting. The meeting read-ahead for participants, the agenda, sign in sheets, the meeting presentation cover sheet and meeting notes follow:

Sample 1

TULARE COUNTY 2016/2017 HAZARD MITIGATION PLAN PROJECT KICK OFF MEETING

MEETING PURPOSE

This is an overview to prepare for the Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan Update kick-off meeting. This will be informal to meet and brief all of the planning team on the process, approach, and roles and responsibilities of personnel participating in the multi-jurisdictional planning project.

During this kick-off meeting, we will accomplish the following objectives:

1. Ensure the planning team members understand the project, and agree with the project approach and timeline
2. Convey to the planning team members the purpose and necessity of having a HMP, the project scope of work, and the importance of their input for the successful completion of the project
3. Provide the planning team members with a description of what their roles and responsibilities will be during the planning process
4. Establish points of contact designated for each city, tribe, districts and departments to be included as members of the planning team
5. Determine a schedule for the planning project and determine the best means of communicating between the project managers and the planning team
6. Identify hazards for the plan

WHAT IS HAZARD MITIGATION?

Hazard mitigation is “**any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards.**”¹ Although the requirements set by 44 Code of Federal Regulations (CFR), Subpart M Section 206.401 requires a planning area to describe only natural hazards that may affect the jurisdictions, most planning areas include technological and human-caused hazards in the HMP to represent the total risk from hazards to the planning area. In addition, the State of California enacted Senate Bill No. 379 which requires all local planning areas to assess vulnerabilities associated with climate change, and incorporate the plan into the County’s General Plan’s Safety Element.

Hazards can result in human death and destruction of property and infrastructure. The

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Planning Process Documentation

work done to minimize the impact of hazard events to life and property is called hazard mitigation. Often, these damaging events occur in the same locations over time (i.e. earthquakes along fault lines), and cause repeated damage. Because of this, hazard mitigation is often focused on reducing repetitive losses, thereby breaking the disaster cycle. The essential steps of hazard mitigation are:

- Identify and profile hazards that affect the local area
- Analyze the people and facilities at risk from those hazards
- Develop mitigation actions to lessen or reduce the impact of the profiled hazards

WHY THE NEED FOR A HAZARD MITIGATION PLAN?

The Federal Disaster Mitigation Act (2000), Federal Register 44 CFR Parts 201 and 206 requires local governments to develop and submit HMPs as a condition of receiving Hazard Mitigation Grant Program and other mitigation project grants. This includes pre-disaster mitigation funding and post-disaster mitigation funding.

WHAT ARE THE REQUIREMENTS FOR A HAZARD MITIGATION PLAN?

The requirements for an HMP are described in 44 CFR Parts 201 and 206. FEMA has produced a *Local Mitigation Plan Review Tool* to demonstrate how the mitigation plan meets the regulation in 44 CFR § 201.6. The plan review tool has a regulation checklist that provides a summary of FEMA's evaluation of whether the plan has addressed all requirements. Local planners can also use the checklist prior to submitting the plan for approval to ensure they have addressed all the requirements.

The primary tasks that will take place during the planning process include:

1. Capability analysis
2. Vulnerability assessment
3. Hazard identification
4. Defining a hazard mitigation strategy through actions and projects
5. Implementing the hazard mitigation actions and projects

CONSULTANT FACILITATED PROJECT

Navigating Preparedness Associates (NPA) was selected as the consultant firm to facilitate the development of the County HMP. NPA has successfully conducted similar projects, and understands the importance of developing and implementing an HMP. Responsibilities of the NPA project manager include the following:

- Remain as the consultant point of contact through the project
- Facilitate meetings with the planning team, stakeholders and the public
- Develop the plan with project related material, information and associated data received within the project schedule
- Provide project deliverables within the developed schedule
- Respond to e-mails and phone calls (typically within a 24-hour period)
- Inform the County's project manager of any anticipated delays

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COUNTY HAZARD MITIGATION PLAN PROJECT MANAGER ROLES AND RESPONSIBILITIES

The County project manager will liaison with the NPA project manager throughout the project. Responsibilities of the County project manager include the following:

- Remain as the point of contact throughout the project
- Coordinate and host meetings with the planning team, stakeholders and the public
- Provide project related material, information and associated data within the project schedule
- Provide timely review of project deliverables (typically 10 working days)
- Inform NPA's project manager of any anticipated delays

PROJECT STAKEHOLDERS AND THE PUBLIC

The HMP planning process includes stringent requirements to include input from stakeholders and the public. Generally, project stakeholders include local jurisdictions, neighboring jurisdictions and their agencies and County departments that might respond during a disaster. It's important to ensure consistent representation from participating organizations. The public is represented by community members and community organizations that have interests in the projects and actions selected to mitigate hazards, and save lives and property.

NPA will gather input from planning team members, stakeholders, and the public and current documents that may assist in the development of the HMP. The planning team will be responsible to provide information related to their specific tribe, department or jurisdiction.

NEXT STEPS

The next step following the HMP project kick-off meeting is to schedule a meeting with the planning team to gather any documents that may provide input for the capability analysis, vulnerability assessment, and hazard identification. We look forward to getting started on this project and anticipate a successful venture for all.

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Planning Process Documentation

Sample 2

**TULARE COUNTY
HAZARD MITIGATION PLAN PROJECT
Hazard Mitigation Planning Team
Meeting #1**

AGENDA: Time	Item	Lead
2:00 - :15	Introductions <ul style="list-style-type: none">• Tulare County Office of Emergency Services (OES)• Hazard Mitigation Planning Team• Navigating Preparedness (NPA)	Dave Lee, OES
2:15 - :25	Review of Hazard Mitigation Plan Requirements and Planning Process <ul style="list-style-type: none">• Background• Purpose• Components• Schedule	Lee Rosenberg, NPA
2:25 - :40	Responsibilities of the Planning Team Potential Hazards to Include Sources of Data for Hazard Analysis and Vulnerability Assessment	Lee Rosenberg, NPA
2:40 - 3:15	Hazard Identification Exercise	Lee Rosenberg, NPA
3:15 - 3:30	Questions and Answers and Recap	Dave Lee, OES Lee Rosenberg, NPA

Sample 3

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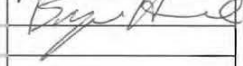
Sign in Sheets

Tulare Multi-jurisdiction Hazard Mitigation Plan: Team Meeting Nr. 1 Aug 31, 2016				
Jurisdiction	Agency/Department	Name	Title	
City of Exeter	Police Department	Cliff Bush	Police Chief	
City of Lindsay	Dept of Public Safety	Mari Carillo		
Tulare County	County Admin Office	Eric Coyne	Deputy CAO	
Tulare County	County Admin Office	Mike Spata	County Administrative Off	
Tulare County	General Services	John Hess		
Tulare County	HHS Agency	Andrew Lockman	Manager	
Tulare County	HHS Agency	Cheryl Duerkson	Agency Director	
Tulare County	HHS Agency	Dave Lee	OES Specialist	
Tulare County	HHS Agency	Sabrina Bustamante	OES Specialist	
Tulare County	HHS Agency	Timothy Lutz	Fiscal Operations Director	
Tulare County	Info and Comms Tech.	Bob Irvine	Division Manager	
Tulare County	Res Management Agency	Ben Ruiz	Interim RMA Director	
Tulare County	Sheriff's Office	Larry Micari	Captain	
Tulare County	Sheriff's Office	Mike Boudreaux	Sheriff	
Tulare County	Sheriff's Office	Robin Skiles	Undersheriff	
Tulare County	Sheriff's Office	Sue Gunderman	Administrative Secretary	
City of Dinuba	Administration	Luis Patlan	City Manager	
City of Dinuba	Fire Department	Chad Thompson	Fire Chief	
City of Dinuba	Fire Department	Sean Doyle	Battalion Chief	
City of Dinuba	Police Department	Devon Popovich	Chief	
City of Dinuba	Public Works	Blanca Beltran	Public Works Director	
City of Exeter	Administration	Randy Groom	City Manager	
City of Exeter	Police Department	Brett Inglehart	Sergeant	
City of Exeter	Public Works	Daymon Qualls	Public Works Director	
City of Farmersville	Administration	John Jansons	City Manager	
City of Farmersville	Fire Department	John Crivello	Fire Chief	
City of Farmersville	Public Works	Dake Wyckoff	Public Works Director	
City of Lindsay	Administration	Bill Zigler	City Manager	

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

City of Lindsay	Dept of Public Safety	Chris Hughes	Chief	
City of Lindsay	Public Works	Mike Camarena	City Services Director	
City of Porterville	Administration	John Lollis	City Manager	
City of Porterville	Fire Department	Glenn Irish	Fire Chief	
City of Porterville	Public Works	Mike Reed	Public Works Director	
City of Tulare	Administration	Don Dorman	City Manager	
City of Tulare	Fire Department	Cameron Long	Chief	
City of Tulare	Fire Department	Willard Epps	Fire Chief	
City of Tulare	Public Works	Joseph Carlini	Public Works Director	
City of Visalia	Administration	Mike Olmos	City Manager	
City of Visalia	Fire Department	Danny Wristen	Chief	
City of Visalia	Fire Department	Doug McBee	Fire Chief	
City of Visalia	Natural Resources	Lupe Garcia		
City of Visalia	Public Works	Norm Goldstrom	Public Works Manager	
City of Woodlake	Administration	Ramon Lara	City Manager	
City of Woodlake	Fire Protection District	Anthony Perez	Fire Chief	
City of Woodlake	Public Works	Adrian Ornelas	Public Works Supervisor	
College of the Sequoias	Police Department	Kevin Mizner	Police Chief	
Tulare County	Agriculture	Marilyn Kinoshita	Ag-Commissioner/Sealer	
Tulare County	County Counsel	Jennifer Takehana	Deputy County Counsel	
Tulare County	County Counsel	Robyn Henry	Risk Manager	
Tulare County	Fire Department	Charles Norman	Fire Chief	
Tulare County	Fire Department	Clay Smith	Chief	
Tulare County	Fire Department	Jeffery McLaughlin	Chief - CAPTAIN	
Tulare County	General Services	Mike Dickerson		
Tulare County	General Services	Neil Pilegard	Parks Manager	
Tulare County	HHS Agency	Carrie Amador	Staff Services Analyst	
Tulare County	HHS Agency	David Rozell	Manager	
Tulare County	HHS Agency	Jason Britt	Public Health Director	
Tulare County	HHS Agency	Karen Haught	Health Officer	
Tulare County	HHS Agency	Nilsa Gonzalez	Env. Health Director	

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Tulare County	Info and Comms Tech.	Mark Clark		
Tulare County	Res Management Agency	Bryce Howard	Director	
Tulare County	Res Management Agency	Dave Bryant	Chief Planner	
Tulare County	Res Management Agency	Dennis Lehman	Manager	
Tulare County	Res Management Agency	Johnny Wong	Engineer	
Tulare County	Res Management Agency	Mike Washam	Director	
Tulare County	Res Management Agency	Reed Schenke	Chief Engineer	
Tulare County	Res Management Agency	Ross Miller	Engineer	
Tulare County	Sheriff's Office	Robert Schimpt	Lieutenant	
Tulare County Office of E	General Services	Jeff Ramsay	Director	
Tulare County Office of E	TCOE	Adam Valencia		
Tulare County Office of E	TCOE	John Caudle	Assistant Superintendent	
Tule River Indian Tribe	Administration	Victor Silvas	Tribal Administrator	
Tule River Indian Tribe	Emergency Services	Joe Boy Perez	Dir. of Emergency Services	

CITY OF PORTERVILLE FIRE

GLEN HALL



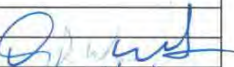
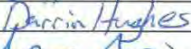
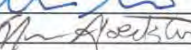
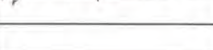


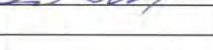
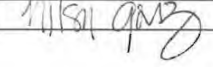
BATTALION CHIEF

ghall@ci-porterville.ca.us

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Tulare Multi-jurisdiction Hazard Mitigation Plan: Team Meeting Nr. 1 Aug 31, 2016				
Jurisdiction	Agency/Department	Name	Title	
City of Exeter	Police Department	Cliff Bush	Police Chief	
City of Lindsay	Dept of Public Safety	Mari Carillo		
Tulare County	County Admin Office	Eric Coyne	Deputy CAO	<i>Kyrin Matheny</i>
Tulare County	County Admin Office	Mike Spata	County Administrative Off	
Tulare County	General Services	John Hess		
Tulare County	HHS Agency	Andrew Lockman	Manager	<i>W</i>
Tulare County	HHS Agency	Cheryl Duerkson	Agency Director	
Tulare County	HHS Agency	Dave Lee	OES Specialist	
Tulare County	HHS Agency <i>Jacqui Bardo</i>	Sabrina Bustamante	OES Specialist Admin Aide	<i>W</i>
Tulare County	HHS Agency	Timothy Lutz	Fiscal Operations Director	
Tulare County	Info and Comms Tech.	Bob Irvine	Division Manager	
Tulare County	Res Management Agency	Ben Ruiz	Interim RMA Director	
Tulare County	Sheriff's Office	Larry Micari	Captain	
Tulare County	Sheriff's Office	Mike Boudreaux	Sheriff	
Tulare County	Sheriff's Office	Robin Skiles	Undersheriff	
Tulare County	Sheriff's Office	Joe Golderman	Administrative Secretary	<i>W</i>
City of Dinuba	Administration	Luis Patlan	City Manager	
City of Dinuba	Fire Department	Chad Thompson	Fire Chief	<i>W</i>
City of Dinuba	Fire Department	Sean Doyle	Battalion Chief	<i>W</i>
City of Dinuba	Police Department	Devon Popovich	Chief	<i>W</i>
City of Dinuba	Public Works	Blanca Beltran	Public Works Director	
City of Exeter	Administration	Randy Groom	City Manager	
City of Exeter	Police Department	Brett Inglehart	Sergeant	
City of Exeter	Public Works	Daymon Qualls	Public Works Director	
City of Farmersville	Administration	John Jansons	City Manager	
City of Farmersville	Fire Department	John Crivello	Fire Chief	<i>John A. Crivello</i>
City of Farmersville	Public Works	Dake Wyckoff	Public Works Director	
City of Lindsay	Administration	Bill Zigler	City Manager	

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

City of Lindsay	Dept of Public Safety	Chris Hughes	Chief	
City of Lindsay	Public Works	Mike Camarena	City Services Director	
City of Porterville	Administration	John Lollis	City Manager	
City of Porterville	Fire Department	Glenn Irish	Fire Chief	
City of Porterville	Public Works	Mike Reed	Public Works Director	
City of Tulare	Administration	Don Dorman	City Manager	
City of Tulare	Fire Department	Cameron Long	Chief	
City of Tulare	Fire Department	Willard Epps	Fire Chief	
City of Tulare	Public Works	Joseph Carlini	Public Works Director	
City of Visalia	Administration	Mike Olmos	City Manager	
City of Visalia	Fire Department	Danny Wristen	Chief	
City of Visalia	Fire Department	Doug McBee	Fire Chief	
City of Visalia	Natural Resources	Lupe Garcia		
City of Visalia	Public Works	Norm Goldstrom	Public Works Manager	
City of Woodlake	Administration	Ramon Lara	City Manager	
City of Woodlake	Fire Protection District	Anthony Perez	Fire Chief	
City of Woodlake	Public Works	Adrian Ornelas	Public Works Supervisor	
College of the Sequoias	Police Department	Kevin Mizner	Police Chief	
Tulare County	Agriculture	Marilyn Kinoshita	Ag-Commissioner/Sealer	
Tulare County	County Counsel	Jennifer Takehana	Deputy County Counsel	
Tulare County	County Counsel	Robyn Henry	Risk Manager	
Tulare County	Fire Department	Charles Norman	Fire Chief	
Tulare County	Fire Department	Clay Smith	Chief	
Tulare County	Fire Department	Jeffery McLaughlin	Chief	
Tulare County	General Services	Mike Dickerson		
Tulare County	General Services	Neil Pilegard	Parks Manager	
Tulare County	HHS Agency	Carrie Amador	Staff Services Analyst	
Tulare County	HHS Agency	David Rozell	Manager	
Tulare County	HHS Agency	Jason Britt	Public Health Director	
Tulare County	HHS Agency	Karen Haught	Health Officer	
Tulare County	HHS Agency	Nilsa Gonzalez	Env. Health Director	

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Tulare County	Info and Comms Tech.	Mark Clark		
Tulare County	Res Management Agency	Bryce Howard	Director	
Tulare County	Res Management Agency	Dave Bryant	Chief Planner	<i>DB</i>
Tulare County	Res Management Agency	Dennis Lehman	Manager	
Tulare County	Res Management Agency	Johnny Wong	Engineer	
Tulare County	Res Management Agency	Mike Washam	Director	<i>up</i>
Tulare County	Res Management Agency	Reed Schenke	Chief Engineer	
Tulare County	Res Management Agency	Ross Miller	Engineer	
Tulare County	Sheriff's Office	Robert Schimpt	Lieutenant	<i>ROB SCHIMPT</i>
Tulare County Office of E	General Services	Jeff Ramsay	Director	<i>Jeff Ramsay</i>
Tulare County Office of E	TCOE	Adam Valencia		
Tulare County Office of E	TCOE	John Caudle	Assistant Superintendent	
Tule River Indian Tribe	Administration	Victor Silvas	Tribal Administrator	
Tule River Indian Tribe	Emergency Services	Joe Boy Perez	Dir. of Emergency Services	<i>Joe Boy Perez</i>

Tule River Tribe
Tulare County RMA
" AgComm
Tulare County CAO
CITY OF VISALIA PUBLIC WORKS
City of Visalia Fire Dept
Richard Brown
D. Lehman Building OFFICIAL
Marilyn Kinoshita AgComm
Kyria Martinez Analyst
ADAM ENNIS DIRECTOR
Karl Kassner 799-3024
adamennis@visalia-city
Karl Kassner @visalia.city

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Sample 4

September 5, 2016

To: Andrew Lockman

From: Lee Rosenberg

On September 1, 2016, the County of Tulare (County) hosted a meeting to initiate the process of updating its multi-jurisdictional local hazard mitigation plan (HMP) for the County. Attendees, which form the HMP planning team, included representatives from County agencies, participating jurisdictions and special districts, and the Tule River Indian Tribe. Table 1 provides a complete list.

Table 1: Planning Team Meeting #1 Attendees

Jurisdiction	Agency/Department	Name	Title
City of Dinuba	Fire Department	Chad Thompson	Fire Chief
City of Dinuba	Police Department	Devon Popovich	Chief
City of Dinuba	Fire Department	Sean Doyle	Battalion Chief
City of Exeter	Public Works	Daymon Qualls	Public Works Director
City of Exeter	Administration	Randy Groom	City Manager
City of Farmersville	Fire Department	John Crivello	Fire Chief
City of Porterville	Fire Department	Glenn Hall	Battalion Chief
City of Porterville	Fire Department	Glenn Irish	Fire Chief
City of Porterville	Administration	John Lollis	City Manager
City of Porterville	Public Works	Mike Reed	Public Works Director
City of Visalia	Public Works	Adam Ennis	Director
City of Visalia	Fire Department	Danny Wristen	Chief
City of Visalia	Fire Department	Darrin Hughes	Battalion Chief
City of Visalia	Fire Department	Karl Kassner	Captain
City of Visalia	Natural Resources	Lupe Garcia	
City of Visalia	Public Works	Norm Goldstrom	Public Works Manager
College of the Sequoias	Police Department	Kevin Mizner	Police Chief
Tulare County	Information & Communications Tech.	Bob Irvine	Division Manager
Tulare County	Resource Management Agency	Bryce Howard	Director
Tulare County	Health and Human Services Agency	Carrie Amador	Staff Services Analyst
Tulare County	Resource Management Agency	Dave Bryant	Chief Planner
Tulare County	Health and Human Services Agency	Dave Lee	OES Specialist
Tulare County	Health and Human Services Agency	Andrew Lockman	Emergency Services Manager
Tulare County	Health and Human Services Agency	Jacqui Balderas	Administrative Aid
Tulare County	Fire Department	David Cornett	Captain
Tulare County	Health and Human Services Agency	David Rozell	Manager
Tulare County	Resource Management Agency	Dennis Lehman	Manager

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Jurisdiction	Agency/Department	Name	Title
Tulare County	County Administrative Office	Eric Coyne	Deputy CAO
Tulare County	Office of Emergency Services	Jacqui Balderas	Administrative Aide
Tulare County	County Counsel	Jennifer Takehana	Deputy County Counsel
Tulare County	Sheriff's Office	Kevin Kemmerling	Sergeant
Tulare County	County Administrative Office	Kyria Martinez	Analyst, Economic Development
Tulare County	Agriculture	Marilyn Kinoshita	Ag-Commissioner/Sealer
Tulare County	Information & Communications Tech.	Mark Clark	GIS Coordinator
Tulare County	Resource Management Agency	Mike Washam	Director
Tulare County	Health and Human Services Agency	Nilsa Gonzalez	Env. Health Director
Tulare County	Sheriff's Office	Robert SchimpfSchimpf	Lieutenant
Tulare County	Health and Human Services Agency	Timothy Lutz	Fiscal Operations Director
Tulare County Office of Education	General Services	Jeff Ramsay	Director
Tule River Indian Tribe	Emergency Services	Joe Boy Perez	Director of Emergency Services
Tule River Indian Tribe	Fire Department	Richard Brown	Fire Chief
Navigating Preparedness Assoc.		Lee Rosenberg	Managing Director

Summary of Discussion

1. The group introduced themselves and the agency/jurisdiction they represent.
2. Navigating Preparedness Associates (NPA) presented a detailed review of the hazard mitigation planning process and the value of updating the County's Hazard Mitigation Plan (HMP). Key topics included:
 - Overview of hazard mitigation planning
 - Hazard Mitigation Plan requirements
 - Responsibilities and project planning schedule
 - Hazards review
 - Planning team and planning process
3. Several planning team members asked questions or provided input into the discussion. Notable issues were:
 - Michael Washam, County Resource Management Agency – Described the requirements of Senate Bill 379 (SB 379) which mandates that local planning areas assess vulnerabilities associated with climate change and incorporate a climate action plan into their General Plan Safety Element. This requirement may be met by addressing climate change vulnerabilities and describing implementation measures to reduce climate change related hazards in a FEMA approved hazard mitigation plan adopted as the safety element of the County's General Plan.

Lee Rosenberg from Navigating Preparedness Assoc. (NPA) stated that climate change would be addressed in the updated HMP. He will work with the County to include elements of General Plan Safety Element, the 2012 County Climate Action Plan and additional technical information in the

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HMP in order to allow the County to adopt the HMP as the General Plan Safety Element and meet the requirements of SB 379.

- Norm Goldstrom, Visalia Public Works – Asked about meeting the requirements of the National Flood Insurance Program (NFIP) Community Rating System (CRS) in order to continue to support reduced flood insurance premiums for City residents.
Lee Rosenberg answered that the project contains a component to address CRS and that NPA will work with the City to meet the requirements to maintain or improve their CRS rating.
- ??? – Asked if the HMP must go through the National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) process.
Andrew Lockman responded that the HMP itself is not subject to NEPA/CEQA review. However, any projects that are funded through Hazard Mitigation Program grants are subject to a full CEQA environmental impact review.

Attention also needs to be given to other potential CEQA concerns. If the HMP is adopted as the General Plan Safety Element and the County climate action plan, then the updated General Plan will be considered a project under CEQA. The County as a local government must analyze – and where feasible mitigate – the project’s significant impacts. Unlike project-by-project permitting, CEQA review for the general plan looks at the “big picture,” allowing a community to align its long-term vision with important objectives, such as reducing greenhouse gas emissions and advancing environmental justice by avoiding additional impacts to communities already affected by pollution.

After reviewing the project record, the County can determine that there is no substantial evidence that the General Plan Safety Element/Local Hazard Management Plan update will have a significant effect on the environment and a Negative Declaration of Environmental Impact may be prepared in accordance with CEQA.

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Action Items

Action Item	Responsible Party	Due Date	Status
Provide data collection templates for infrastructure, hazards, capabilities and completed mitigation activities	Navigating Preparedness	September 16, 2016	Open
Provide updated data for infrastructure, hazards, capabilities and completed mitigation activities	All HMP participants	October 16, 2016	Open
Review the County 2012 Climate Action Plan for inclusion in the HMP update	Navigating Preparedness	September 30, 2016	Open
Review the General Plan Safety Element for inclusion in the HMP update	Navigating Preparedness	September 30, 2016	Open
Review material to support the City of Visalia maintaining/improving their CRS score	Navigating Preparedness/City of Visalia	September 30, 2016	Open
Initiate drafting the HMP by completing Sections 1, 4 and 5	Navigating Preparedness	September 30, 2016	Open

Points of Contact

For concerns or questions regarding these notes, please contact:

Lee Rosenberg, (925) 381-0583 or lee.rosenberg@navigatingpreparedness.com or Dave Lee (559) 624-7496 or DLEE@tularehhsa.org

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On November 29, 2016, a second planning team meeting was conducted at the offices of the County Department of Health and Human Services. The meeting read-ahead, presentation cover page and notes follow:

Sample 5

TULARE COUNTY

2016-2017 MULTI-JURISDICTION LOCAL HAZARD MITIGATION PLAN PROJECT

MEETING PURPOSE

This document is an overview to prepare for Tulare County (County) Multi-jurisdiction Local Hazard Mitigation Plan (HMP) project second planning meeting. This informal meeting will include a brief on the County HMP current status and next steps of the planning process in the HMP project.

During this planning meeting, we will accomplish the following objectives:

1. Update the planning team members on current status of the project and review the project timeline
2. Review identified hazards and confirm their application to County and jurisdiction properties
3. Identify past occurrences of confirmed hazards
4. Risk assessment
 - a. Identify facilities with previous and potential hazards
 - b. Identify frequency of previous impacts from hazards
 - c. Prioritize structures based on criticality
 - d. Identify level of loss per structure
 - e. Identify costs associated with previous hazards and replacement value
 - f. Identify opportunities for mitigation
5. Identify capabilities based on core capabilities
6. Review current and identify future stakeholder and public outreach

DEFINING AND PRIORITIZING HAZARD VULNERABILITY AND RISK

According to the International Organization for Standardization (ISO), Risk Management, risk is defined as the potential losses associated with a hazard, defined in terms of expected probability and frequency, exposure, and consequences. Risk is the

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combination of the probability of an event and its consequences, where: probability is the extent to which an event is likely to occur, event is the occurrence of a particular set of circumstances, and consequences are the outcome of an event.

Once hazards are identified, previous and potential losses are used to prioritize risk based on the hazard. To correlate hazards with risk, the following tools are used: level of loss, geographic extent, frequency and return periods, and mitigation potential.

Level of loss includes injury or death, costs of losses to structures and property, and impacts to the environment. Geographic extent includes identifying how many properties are potentially at risk from a hazardous event. Frequency and return periods refers to how often a hazard occurs in a specified timeframe. Mitigation potential prioritizes structures or projects that are already integrated into the planning process either through hazard mitigation or other planning mechanisms. The mitigation efforts can be integrated into other planning process in many ways but the County and jurisdictions have the opportunity to account for those projects as hazard mitigation projects.

FEMA MISSION AREAS AND CORE CAPABILITIES ANALYSIS

Mission areas, as identified by FEMA, are prevention, protection, mitigation, response and recovery. To address mitigation, we focus on mitigation and response. The State HMP uses the mitigation mission area to further define mitigation core capabilities that focus on:

- Community resilience
- Long-term vulnerability reduction
- Risk and disaster resilience
- Assessment of threats and hazards identification

The State HMP additionally considers response core capabilities that include:

- Critical transportation
- Infrastructure systems
- Mass search and rescue operations
- Operational communications
- Public and private services and resources along with several others.

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The County's and jurisdictions' mission and services are directly correlated to these core capabilities. They can use these as the framework to define jurisdiction-specific capabilities. Defining these capabilities provides the framework for identifying mitigation actions. The County and jurisdictions can use the State of California's capability priorities align mitigation priorities. Integration of these priorities can help both County departments and jurisdiction agencies obtain funding and to implement a broader mitigation strategy.

The County and jurisdictions should also review the National Flood Insurance Program and work with local agencies to identify structures within Flood Insurance Rate Maps (FIRMs). Local jurisdictions then work within the community rating system (CRS), if applicable to reduce flood insurance rates. The City of Visalia is working within the framework of the HMP to obtain CRS credits and reduce rates.

PROJECT STAKEHOLDERS AND THE PUBLIC

The initial step in reaching out to the public included notification on the County website that the HMP update had begun and that public engagement was desired to support the project. As the HMP is more fully developed, additional outreach and feedback are required. As part of a comprehensive outreach plan, the planning team should consider the following, potential outreach efforts and select those that are most applicable to their jurisdiction:

- Developing and conducting an online survey of potential hazards and applicable mitigation activities
- Placing information on the County's and jurisdictions' Facebook and Twitter accounts that references the Website page that contain HMP update information
- Developing and posting a Facebook Live video about the HMP project that highlights potential hazards and solicits feedback via on them and potential mitigation activities on the County or jurisdictions' accounts
- Public meetings
- Placing draft copies of the HMP in libraries

NEXT STEPS



The next step is to identify mitigation actions. Once identified, we will begin formulating how to achieve mitigation actions and integrate them into general planning efforts. Once that's complete, we'll finalize the HMP.

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #2

November 29, 2016

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Eric Coyne	Deputy CAO	Tulare County	County Administrative Office	
Glenn Hall	Battalion Chief	City of Porterville	Fire Department	
Glenn Irish	Fire Chief	City of Porterville	Fire Department	
Jacqui Balderas	Administrative Aide	Tulare County	Office of Emergency Services	
Jason Britt	Public Health Director	Tulare County	Health and Human Services Agency	
Jeff Ramsay	Director	Tulare County Office of Ed	General Services	
Jeffery McLaughlin	Chief	Tulare County	Fire Department	
Jennifer Takehana	Deputy County Counsel	Tulare County	County Counsel	
Joe Boy Perez	Director of Emergency Services	Tule River Indian Tribe	Emergency Services	
John Caudle	Assistant Superintendent	Tulare County Office of Ed	TCOE	
John Crivello	Fire Chief	City of Farmersville	Fire Department	
John Hess		Tulare County	General Services	
John Jansons	City Manager	City of Farmersville	Administration	
John Lollis	City Manager	City of Porterville	Administration	
Johnny Wong	Engineer	Tulare County	Resource Management Agency	

Luis Nevarez D.C
Joanne Bear FC

Tulare City Fire
Tulare County Fire





Joanne Bear

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November 29, 2016

2:30 pm - 4:00 pm

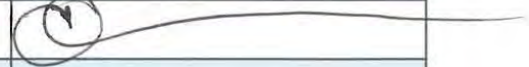
Name	Title	Jurisdiction	Agency/Department	Signature
Cheryl Duerksen	Agency Director	Tulare County	Health and Human Services Agency	
Chris Hughes	Chief	City of Lindsay	Department of Public Safety	
Clay Smith	Chief	Tulare County	Fire Department	
Cliff Bush	Police Chief	City of Exeter	Police Department	
Dake Wyckoff	Public Works Director	City of Farmersville	Public Works	
Danny Wristen	Chief	City of Visalia	Fire Department	
Darrin Hughes	Battalion Chief	City of Visalia	Fire Department	
Dave Bryant	Chief Planner	Tulare County	Resource Management Agency	
Dave Lee	OES Specialist	Tulare County	Health and Human Services Agency	
David Cornett	Captain	Tulare County	Fire Department	
David Rozell	Manager	Tulare County	Health and Human Services Agency	
Daymon Qualls	Public Works Director	City of Exeter	Public Works	
Dennis Lehman	Manager	Tulare County	Resource Management Agency	
Devon Popovich	Chief	City of Dinuba	Police Department	
Doug McBee	Fire Chief	City of Visalia	Fire Department	

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #2

November 29, 2016

2:30 pm - 4:00 pm




Name	Title	Jurisdiction	Agency/Department	Signature
Adam Ennis	Director	City of Visalia	Public Works	
Adam Valencia		Tulare County Office of Ed	TCOE	
Adrian Ornelas	Public Works Supervisor	City of Woodlake	Public Works	
Andrew Lockman	Manager	Tulare County	Health and Human Services Agency	Andrew
Anthony Perez	Fire Chief	City of Woodlake	Fire Protection District	
Ben Ruiz	RMA Director	Tulare County	Resource Management Agency	
Bill Zigler	City Manager	City of Lindsay	Administration	
Blanca Beltran	Public Works Director	City of Dinuba	Public Works	
Bob Irvine	Division Manager	Tulare County	Information & Communications Tech.	
Brett Inglehart	Sergeant	City of Exeter	Police Department	
Bryce Howard	Director	Tulare County	Resource Management Agency	
Cameron Long	Chief	City of Tulare	Fire Department	
Carrie Amador	Staff Services Analyst	Tulare County	Health and Human Services Agency	
Chad Thompson	Fire Chief	City of Dinuba	Fire Department	
Charles Norman	Fire Chief	Tulare County	Fire Department	

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #2

November 29, 2016

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Ross Miller	Engineer	Tulare County	Resource Management Agency	
Sabrina Bustamante	OES Specialist	Tulare County	Health and Human Services Agency	
Sean Doyle	Battalion Chief	City of Dinuba	Fire Department	
Sue Gunderman	Administrative Secretary	Tulare County	Sheriff's Office	
Timothy Lutz	Fiscal Operations Director	Tulare County	Health and Human Services Agency	
Victor Silvas	Tribal Administrator	Tule River Indian Tribe	Administration	
Willard Epps	Fire Chief	City of Tulare	Fire Department	

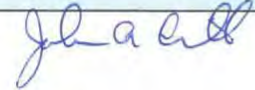
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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #2

November 29, 2016

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Mike Olmos	City Manager	City of Visalia	Administration	
Mike Reed	Public Works Director	City of Porterville	Public Works	
Mike Spata	County Administrative Officer	Tulare County	County Administrative Office	
Mike Washam	Director	Tulare County	Resource Management Agency	
Neil Pilegard	Parks Manager	Tulare County	General Services	
Nilsa Gonzalez	Env. Health Director	Tulare County	Health and Human Services Agency	
Norm Goldstrom	Public Works Manager	City of Visalia	Public Works	
Paul Melikian	Interim City Manager	City of Tulare	Administration	
Ramon Lara	City Manager	City of Woodlake	Administration	
Randy Groom	City Manager	City of Exeter	Administration	
Reed Schenke	Chief Engineer	Tulare County	Resource Management Agency	
Richard Brown	Fire Chief	Tule River Indian Tribe	Fire Department	
Robert Schimpf	Lieutenant	Tulare County	Sheriff's Office	
Robin Skiles	Undersheriff	Tulare County	Sheriff's Office	
Robyn Henry	Risk Manager	Tulare County	County Counsel	




John Crivello Fire chief City of Farmersville FIRE Dept 

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #2

November 29, 2016

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Joseph Carlini	Public Works Director	City of Tulare	Public Works	
Karen Haught	Health Officer	Tulare County	Health and Human Services Agency	
Karl Kassner	Captain	City of Visalia	Fire Department	
Kevin Kemmerling	Sergeant	Tulare County	Sheriff's Office	
Kevin Mizner	Police Chief	College of the Sequoias	Police Department	
Kyria Martinez	Analyst, Economic Development	Tulare County	Resource Management Agency	
Larry Micari	Captain	Tulare County	Sheriff's Office	
Luis Patlan	City Manager	City of Dinuba	Administration	
Lupe Garcia	Associate Engineer	City of Visalia	Community Development	
Mari Carillo		City of Lindsay	Department of Public Safety	
Marilyn Kinoshita	Ag-Commissioner/Sealer	Tulare County	Agriculture	
Mark Clark		Tulare County	Information & Communications Tech.	
Mike Boudreaux	Sheriff	Tulare County	Sheriff's Office	
Mike Camarena	City Services Director	City of Lindsay	Public Works	
Mike Dickerson	FACILITIES MANAGER	Tulare County	General Services	

Richard Brown Tule River Fire Dept.

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Sample 6



Sample 7

December 1, 2016

To: Andrew Lockman

From: Lee Rosenberg

On November 29, 2016, the County of Tulare (County) hosted a meeting to continue the process of updating its multi-jurisdictional local hazard mitigation plan (HMP) for the County. Attendees, which form the HMP planning team, included representatives from County agencies, participating jurisdictions and special districts, and the Tule River Indian Tribe. **Table 1** provides a complete list.

Table 1: Planning Team Meeting #2 Attendees

Jurisdiction	Agency/Department	Name	Title
City of Dinuba	Fire Department	Chad Thompson	Fire Chief
City of Dinuba	Police Department	Devon Popovich	Chief
City of Dinuba	Fire Department	Sean Doyle	Battalion Chief
City of Exeter	Public Works	Daymon Qualls	Public Works Director
City of Farmersville	Fire Department	John Crivello	Fire Chief
City of Porterville	Fire Department	Glenn Hall	Battalion Chief

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Jurisdiction	Agency/Department	Name	Title
City of Porterville	Fire Department	Glenn Irish	Fire Chief
City of Porterville	Public Works	Mike Reed	Public Works Director
City of Tulare	Fire Department	Cameron Long	Chief
City of Visalia	Public Works	Adam Ennis	Director
City of Visalia	Fire Department	Danny Wristen	Chief
City of Visalia	Public Works	Norm Goldstrom	Public Works Manager
Tulare County	Information & Communications Tech.	Bob Irvine	Division Manager
Tulare County	Health and Human Services Agency	Carrie Amador	Staff Services Analyst
Tulare County	Resource Management Agency	Dave Bryant	Chief Planner
Tulare County	Resource Management Agency	Ross Miller	Engineer
Tulare County	Resource Management Agency	Johnny Wong	Engineer
Tulare County	Health and Human Services Agency	Dave Lee	OES Specialist
Tulare County	Health and Human Services Agency	Andrew Lockman	Emergency Services Manager
Tulare County	Fire Department	David Cornett	Captain
Tulare County	Fire Department	Joanne Bear	Fire Chief
Tulare County	County Administrative Office	Eric Coyne	Deputy CAO
Tulare County	General Services	Mike Dickerson	Facilities Manager
Tulare County	Sheriff's Office	Kevin Kemmerling	Sergeant
Tulare County	Agriculture	Marilyn Kinoshita	Ag-Commissioner/Sealer
Tulare County	Information & Communications Tech.	Mark Clark	GIS Coordinator
Tulare County	Resource Management Agency	Mike Washam	Director
Tulare County	Health and Human Services Agency	Nilsa Gonzalez	Env. Health Director
Tulare County	Sheriff's Office	Robert Schimpf	Lieutenant
Tulare County	Health and Human Services Agency	Timothy Lutz	Fiscal Operations Director
Tule River Indian Tribe	Emergency Services	Joe Boy Perez	Director of Emergency Services
Tule River Indian Tribe	Tule River Fire Department	Richard Brown	Chief
Navigating Preparedness Assoc.		Lee Rosenberg	Managing Director

Summary of Discussion

1. The group introduced themselves and the agency/jurisdiction they represent.
2. Navigating Preparedness Associates (NPA) reviewed progress in updating the County's Hazard Mitigation Plan (HMP) and stressed the need to provide inputs on infrastructure, completed and ongoing mitigation activities from the 2011 HMP and information on recent hazard incidents. The remainder of the meeting involved reviewing the hazards in the current HMP and potential additional hazards. The hazards reviewed and suggested jurisdictions affected are listed in **Table 2**:

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Table 2: Potential Hazard for Inclusion in the HMP

Hazard	Tulare County	City of Dinuba	City of Exeter	City of Farmersville	City of Lindsay	City of Porterville	City of Tulare	City of Visalia	City of Woodlake	Tulare County Office of Education	Tule River Tribe
Civil disturbance	X	X	X	X	X	X	X	X	X	X	X
Climate change	X	X	X	X	X	X	X	X	X	X	X
Drought	X	X	X	X	X	X	X	X	X	X	X
Earthquake	X	X	X	X	X	X	X	X	X	X	X
Energy emergency	X	X	X	X	X	X	X	X	X	X	X
Extreme Heat	X	X	X	X	X	X	X	X	X	X	X
Flood (1)	X	X	X	X	X	X	X	X	X	X	X
Fog	X	X	X	X	X	X	X	X	X	X	X
Hazardous materials	X	X	X	X	X	X	X	X	X	X	X
Heat	X	X	X	X	X	X	X	X	X	X	X
Landslide/Mudslide/Debris Flow											
Severe winter storm	X	X								X	X
Terrorism/WMD ²	X	X	X	X	X	X	X	X	X	X	X
Wildfire	X					X			X	X	X

(1) Includes riverine, shallow and localized flooding; dam failure and levee failure

(2) Weapons of mass destruction

Based on the planning team recommendations and using the criteria in **Table 3**, a calculated risk priority index was developed. The results are contained in **Table 4**.

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On January 17, 2017, a third planning team meeting was conducted. The meeting read-ahead, presentation cover page and notes follow:

Sample 8

Section 6.2 Mitigation Goals

Mitigation goals are guidelines that represent what the community wants to accomplish through the mitigation plan. Goals are broad statements that represent a long-term, community-wide vision. The planning team reviewed example goals and objectives, and determined which goals best met the County's objectives for mitigation. In addition to the overarching hazard mitigation goals, the County worked with CAL FIRE to develop the strategies in alignment with the County General Plan Health and Safety Element. The goals align with the hazards in the 2016 General Plan and reflect input provided by stakeholders and the public. **Table 6-1** lists the goals for the 2016 HMP.

Table 6-1 Hazard Mitigation Goals
Goal 1: Protect life, property, and reduce potential injuries from natural, technological, and human-caused hazards.
Goal 2: Improve public understanding, support and need for hazard mitigation measures.
Goal 3: Promote disaster resistance for the County's natural, existing, and future built environment.
Goal 4: Strengthen partnerships and collaboration to implement hazard mitigation activities.
Goal 5: Enhance the County's ability to effectively and immediately respond to disasters.

Many of the County's mitigation strategies from the 2011 HMP are still relevant to this update. **Table 6-2** contains an updated set of future County-specific mitigation actions. Mitigation actions were developed from numerous sources including the General Plan, the Climate Action Plan and input from the public and stakeholders.

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Table 6-2: County-Specific Actions and Hazards Mitigated				
Goal	Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	1-1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
1	1-2	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
1	1-3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
1	1-4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
1	1-5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
1	1-6	Continue to seek grant funding for the rehabilitation of deteriorated and dilapidated structures and provide available information regarding housing programs and other public services including the identification of existing nonconforming building construction specific to building codes that apply in the Very High Fire Hazard Safety Zones.	FR	Mit.
1	1-7	Continue to evaluate areas to determine levels of earthquake risk.	EC	Mit.
1	1-8	Discourage construction and grading on slopes in excess of 30 percent	LS	Mit.
1	1-9	Request Federal and State financial assistance to implement corrective seismic safety measures required for existing County buildings and structures.	EQ	Mit.

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1	1-10	Do not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resource code, Chapter 7.5) unless the specific provision of the Act and Title 14 of the California Code of Regulations have been satisfied.	EQ	Mit.
1	1-11	Discourage the location of new schools in areas designated for agriculture, unless the School District agrees to the construction and maintenance of all necessary infrastructure impacted by the project.	All	Mit.
1	1-12	Encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste, and solar or wind farms.	CC, DR, EH, EN	Mit.
1	1-13	Require buffer areas between development projects and significant watercourses, riparian vegetation, wetlands, and other sensitive habitats and natural communities. These buffers should be sufficient to assure the continued existence of the waterways and riparian habitat in their natural state.	FL	Mit.
1	1-14	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
1	1-15	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in VHFHSZ or SRA by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
1	1-16	Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.	FR	Mit.

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1	1-17	Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values. Plans should address protection of natural resource financial values, establishment of fire resilient natural resources, protection of watershed qualities, and protection of endangered species habitats. Actions should consider prescribed burning, fuel breaks, and vegetation thinning and removal.	FR	Mit.
1	1-18	Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helispots.	FR	Mit.
1	1-19	Incorporate native species habitat needs as part of long term fire protection and fire restoration plans.	FR	Mit.
1	1-20	Establish fire defense strategies (such as fire ignition resistant areas) that provide adequate fire protection without dependency on fire resources (both air and ground) and could serve as safety zones for the public or emergency support personnel.	FR	Mit.
1	1-21	Develop dead tree removal projects that are actionable based on available resources, rules, regulatory approvals and available funding.	FR	Mit.
1	1-22	Create a database that accounts for all levees in Tulare County and their condition.	FL, LF	Mit.
1	1-23	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
1	1-24	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	
1	1-25	Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	
1	1-26	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide Digital Flood Insurance Rate Map (DFIRM), Community Assessment Visits, and/or the Department of Water Resources (DWR).	FL	Mit.

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1	1-27	Increase participation in the National Flood Insurance Program (NFIP) by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
1	1-28	Provide flood protection for the County's Juvenile Detention Facility and Records Storage Facility located north of Avenue 368.	FL	Mit.
1	1-29	Construct a new 24-inch culvert pipe with a canal gate from Sontag Ditch on the south side of SR 201 to daylight into the Stone Corral Ditch on the east side of Sontag Ditch. The purpose of this project is intended to direct high flows from Sontag Ditch to the Stone Corral Ditch during heavy rain events. The diverted water will flow into Stone Corral Irrigation District's detention basin located approximately two miles to the south, just north of Cottonwood Creek, therefore, alleviating flooding in the Seville area.	FL	Mit.
1	1-30	Complete the Yettem Button ditch project by obtaining flood easement rights north of the community of Yettem adjacent to the Button Ditch. This will provide comparable flood protection with the added benefit of groundwater recharge.	FL	Mit.
1	1-31	Contract and proceed with preparation of the Flood Control Master Plan Update for the Fresno-Tulare Unit	FL	Mit.
1	1-32	Conduct annual retention basin maintenance that includes weed abatement, fence repair, and drainage inlet flushing	FL	Mit.
1	1-33	Inspect and cycle these flood control pumps Annually to ensure functionality. Clear shrubs and debris in proximity to the basins and channels of the pumps to minimize potential blockage during operation. If required, contract with local pump repair contractors to service the equipment.	FL	Mit.

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1	1-34	Regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following: 1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted. 2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible. 3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.	FL	Mit.
1	1-35	Continue to participate in the National Flood Insurance Program (NFIP).	FL	Mit.
1	1-36	Review projects for their exposure to inundation due to dam failure. If a project presents a direct threat to human life, appropriate mitigation measures shall be taken, including restriction of development in the subject area.	FL, DF	Mit.
1	1-37	Ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required to satisfy federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.	HZ	Mit.
1	1-38	Continue to cooperate with the California Highway Patrol (CHP) to establish procedures for the movement of hazardous wastes and explosives within the County.	HZ	Mit.
1	1-39	Implement post-fire debris flow hill-slope and channel treatments, such as seeding, mulching, check dams, and debris racks, as needed.	LS	Mit.
1	1-40	Manage vegetation in areas within and adjacent to rights of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.	WS	Mit.
1	1-41	Develop a free annual tree chipping and tree pick-up day that encourages residents living in wind hazard areas to manage trees and shrubs at risk to falling on nearby structures.	WS	Mit.

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1	1-42	Bolt down the roofs of critical facilities in wind gust hazard areas in order to prevent wind damage.	WS	Mit
1	1-43	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
2	2-1	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
2	2-2	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
2	2-3	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
3	3-1	Conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.	CC, FL, HZ, LS,	Mit.
3	3-2	Maintain agriculture as the primary land use in the valley region of the County, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's real contribution to the conservation of open space and natural resources.	CC	Mit.
3	3-3	Consider developing an Agricultural Conservation Easement Program (ACEP) to help protect and preserve agricultural lands (including "Important Farmlands"), as defined in the General Plan Safety Element. This program may require payment of an in-lieu fee sufficient to purchase a farmland conservation easement, farmland deed restriction, or other farmland conservation mechanism as a condition of approval for conservation of important agricultural land to non-agricultural use.	CC	Mit.
3	3-4	Seek to protect and enhance surface water and groundwater resources critical to agriculture.	CC	Mit.

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3	3-5	Identify opportunities for infill development projects near employment areas within all unincorporated communities to reduce vehicle trips.	CC	Mit.
3	3-6	Encourage high-density residential development (greater than 16.1 dwelling units per gross acre) to locate along collector roadways and transit routes, and near public facilities (e.g., schools, parks), shopping, recreation, and entertainment.	CC	Mit.
3	3-7	Review LEED and LEED-ND certification requirements and develop an implementation program.	CC	Mit.
3	3-8	Encourage the location of ancillary employee services (including, but not limited to, child care, restaurants, banking facilities, convenience markets) near major employment centers for the purpose of reducing midday vehicle trips.	CC	Mit.
3	3-9	Encourage new streets to be designed and constructed to not only accommodate traffic, but also serve as comfortable pedestrian and cyclist environments. These should include, but not be limited to: <ul style="list-style-type: none"> • Street tree planting adjacent to curbs and between the street and sidewalk to provide a buffer between pedestrians and automobiles, where appropriate • Minimize curb cuts along streets • Sidewalks on both sides of streets, where feasible • Bike lanes and walking paths, where feasible on collectors and arterials 	CC	Mit.
3	3-10	Work with school districts and land developers to locate school sites consistent with current and future land uses. The County shall also encourage siting new schools near the residential areas that they serve and with access to safe pedestrian paths to schools.	CC	Mit.
3	3-11	Work to comprehensively study methods of transportation, which may contribute to a reduction in air pollution in Tulare County.	CC	Mit.
3	3-12	Encourage all new development, including rehabilitation, renovation, and redevelopment, to incorporate energy conservation and green building practices to maximum extent feasible. Such practices include building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.	CC	Mit

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4	4-1	Coordinate with cities to develop cohesive fire safety plans with overlapping coverage.	FR	Mit.
4	4-2	Work with local and Federal agencies to support efforts to reduce fuel related hazards on public lands.	FR	Mit.
4	4-3	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters utilizing SEMS and NIMS.	All	Resp.
4	4-4	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
4	4-5	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
5	5-1	Utilize Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.
5	5-2	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.
5	5-3	In approving new facilities, such as nursing homes, housing for the elderly and other housing for the mentally and physically infirm, to the extent possible, ensure that such facilities are located within reasonable distance of fire and law enforcement stations	FR	Mit.
5	5-4	Expand the Street Names and House Numbering Ordinance to all areas of the County, including private roads, for emergency 911 purposes.	All	Mit.

Codes:

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All – All Hazards
CD – Civil Disturbance
CC – Climate Change
DF – Dam Failure
EQ – Earthquake
EN – Energy Emergency
EH – Extreme Heat
FR – Fire
FL – Flood
FG – Fog
HZ – Hazardous Materials
LS – Landslides/Mudslides/Debris Flows
LF – Levee Failure
PD – Pandemics and Vector Borne Disease
SW – Storms and High Winds
TR – Terrorism
Mit. – Mitigation
Prep. – Preparedness
Res. – Response

Section 6.3 Mitigation Action Plan

Mitigation actions are specific activities or projects that serve to meet the goals that the community has identified. Mitigation actions and projects are more specific than goals or objectives, and often include a mechanism, such as an assigned timeframe, to measure the success and ensure the actions are accomplished. The planning team conducted a review of the mitigation actions and strategies from the 2011 HMP. With information from the risk analysis, capability assessment, and status of the actions implemented since the 2011 HMP, the planning team integrated outstanding action items with other County planning efforts to develop new mitigation actions and projects to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure. Current mitigation projects identified by the County are included in **Table 6-3**. A complete list of mitigation actions for all jurisdictions is included in individual jurisdiction annexes.

The requirements for prioritization of mitigation actions, as provided as provided in the federal regulations implementing the Stafford Act as amended by DMA 2000, are described below.

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FEMA REGULATION CHECKLIST: MITIGATION STRATEGY; PLAN REVIEW AND REVISION

Implementation of Mitigation Actions

44 CFR § 201.6(c)(3)(iii): The mitigation strategy section shall include “an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction.

Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.”

Element

C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost-benefit review), implemented, and administered by the jurisdiction? 44 CFR § 201.6(c)(3)(iii)

Plan Review and Revision

44 CFR § 201.6(d)(3): “A local jurisdiction must review and revise its plan to reflect...changes in priorities...”

Based on these criteria, the County prioritized potential mitigation projects and included them in the action plan discussed below in **Table 6-3**. The mitigation action plan developed by the planning team includes the action items that County intends to implement during the next five years, assuming funding availability. The action plan includes the implementing department, an estimate of the timeline for implementation, and potential funding sources.

The planning team does not presume the expertise to prescribe which projects will be implemented. The prioritization of projects in the HMP is a means to provide a basis for implementing the mitigation strategies, but all new mitigation actions and projects will be formally prioritized and selected by the implementing department. This will accommodate the project funding, schedule of the department, staff requirements, and ability to integrate the new project into existing and ongoing projects. Departments will take into account the funding source, the cost effectiveness of the project, alternative projects, the compatibility of the new project with ongoing projects, the extent to which the project addresses the risks assessed in Section 3, and the potential of economic and social damage.

These actions are being taken by the County and are all encompassing for the jurisdictions within the County. These actions can also be used as guidance for individual jurisdictions as applicable. Individual detailed jurisdiction hazard mitigation action tables are included in **Appendix F**.

Prioritization

To assist with implementing the Mitigation Action Plan, the planning team used the following ranking process to provide a method to prioritize the projects for the Action Plan. Designations of High, Medium, and Low priorities have been assigned to each action item using the following criteria:

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Does the action:	<ul style="list-style-type: none">• Solve the problem?• Address vulnerability assessment?• Reduce the exposure or vulnerability to the highest priority hazard?• Address multiple hazards?• Offer benefits that equal or exceed costs?• Implement a goal, policy, or project identified in the General Plan or Capital Improvement Plan?
Can the action:	<ul style="list-style-type: none">• Be implemented with existing funds?• Be implemented by existing state or federal grant programs?
Will the action:	<ul style="list-style-type: none">• Be completed within the five-year life cycle of the LHMP?• Be implemented with currently available technologies?• Be accepted by the community?• Be supported by community leaders?• Adversely affect segments of the population or neighborhoods?• Require a change in local ordinances or zoning laws?• Result in positive or neutral impact on the environment?
Is there:	<ul style="list-style-type: none">• Comply with all local, state, and federal environmental laws and regulations?• Sufficient staffing to undertake the project?• Existing authority to undertake the project?

Each positive response is equal to one point. Answers to the criteria above determined the priority according to the following scale:

1–6 = Low priority

7–12 = Medium priority

13–18 = High priority

When direct benefits or grants were not available, indirect costs were analyzed through the analysis of the social, technical, administrative, political, legal, economic and environmental (STAPLEE) benefit method. **Appendix F** contains analysis of each of the Mitigation Activities based upon the STAPLEE method.

Benefit-Cost Analysis

Conducting benefit/cost analysis for a mitigation activity can assist WETA in determining whether a project is worth undertaking now, in order to avoid disaster related damages later. Cost-effectiveness analysis evaluates how to best spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating hazards can provide decision makers with an understanding of the potential benefits and costs of an activity, as well as a basis for comparing alternative projects.

Funding

The funds required to implement the mitigation action plan will come from a variety of sources including: Federal Hazard Mitigation Grants, fares, bonds, fees and assessments, and others. Some projects are (or will be) included in capital improvement budgets, while some, especially ongoing projects, are included in department operating budgets.

Prior to beginning a project or when federal funding is involved, the implementing department will use a FEMA approved benefit/cost analysis approach to identify the actual costs and benefits of implementing these mitigation actions. For non-structural projects, implementing departments will use other appropriate methods to weigh the costs and benefits of each action item, and then develop a prioritized list.

Implementation

Mitigation projects were assigned one of three categories as a tentative schedule for implementation: short-range, mid-range, and long-range. Implementation of short-range projects will typically begin within

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the next three years. Mid-range projects will require some planning and likely require funding beyond what is currently allocated to the WETA general fund. Projects in the mid-range category will generally begin implementation in the next three to five years. Long range projects will require great planning and funding, and will generally begin implementation within five years and beyond.

Table 6-3 County Hazard Mitigation Actions					
Status	Project Name	Description	Hazards Addressed	Estimate	Prioritization

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Sample 9

Sign in Sheet

Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3
January 17, 2017
2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Daymon Qualls	Public Works Director	City of Exeter	Public Works	
Dennis Lehman	Manager	Tulare County	Resource Management Agency	
Devon Popovich	Chief	City of Dinuba	Police Department	
Doug McBee	Fire Chief	City of Visalia	Fire Department	
Eric Coyne	Deputy CAO	Tulare County	County Administrative Office	
Glenn Hall	Battalion Chief	City of Porterville	Fire Department	
Glenn Irish	Fire Chief	City of Porterville	Fire Department	
Jacqui Balderas	Administrative Aide	Tulare County	Office of Emergency Services	
Jason Britt	Public Health Director	Tulare County	Health and Human Services Agency	
Jeff Ramsay	Director	Tulare County Office of Ed	General Services	
Jeffery McLaughlin	Chief	Tulare County	Fire Department	
Jennifer Takehana	Deputy County Counsel	Tulare County	County Counsel	







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January 17, 2017

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Carrie Amador	Staff Services Analyst	Tulare County	Health and Human Services Agency	
Chad Thompson	Fire Chief	City of Dinuba	Fire Department	
Charles Norman	Fire Chief	Tulare County	Fire Department	
Chris Hughes	Chief	City of Lindsay	Department of Public Safety	
Cliff Bush	Police Chief	City of Exeter	Police Department	
Dake Wyckoff	Public Works Director	City of Farmersville	Public Works	
Danny Wristen	Chief	City of Visalia	Fire Department	
Darrin Hughes	Battalion Chief	City of Visalia	Fire Department	
Dave Bryant	Chief Planner	Tulare County	Resource Management Agency	
Dave Lee	OES Specialist	Tulare County	Health and Human Services Agency	
David Cornett	Captain	Tulare County	Fire Department	
David Rozell	Manager	Tulare County	Health and Human Services Agency	

Doug McBee | Fire Chief | Visalia City | Fire Dept

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January 17, 2017

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Adam Ennis	Director	City of Visalia	Public Works	
Adam Valencia		Tulare County Office of Ed	TCOE	
Adrian Ornelas	Public Works Supervisor	City of Woodlake	Public Works	
Andrew Lockman	Manager	Tulare County	Health and Human Services Agency	
Anthony Perez	Fire Chief	City of Woodlake	Fire Protection District	
Ben Ruiz	RMA Director	Tulare County	Resource Management Agency	
Bill Zigler	City Manager	City of Lindsay	Administration	
Blanca Beltran	Public Works Director	City of Dinuba	Public Works	
Bob Irvine	Division Manager	Tulare County	Information & Communications Tech.	
Brett Inglehart	Sergeant	City of Exeter	Police Department	
Bryce Howard	Director	Tulare County	Resource Management Agency	
Cameron Long	Chief	City of Tulare	Fire Department	

Richard Brown Tulare Fire Dept.

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January 17, 2017

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Mike Marquez	Police Chief	City of Woodlake	Police Department	
Mike Olmos	City Manager	City of Visalia	Administration	
Mike Reed	Public Works Director	City of Porterville	Public Works	
Mike Spata	County Administrative Officer	Tulare County	County Administrative Office	
Mike Washam	Director	Tulare County	Resource Management Agency	
Neil Pilegard	Parks Manager	Tulare County	General Services	
Nilsa Gonzalez	Env. Health Director	Tulare County	Health and Human Services Agency	
Norm Goldstrom	Public Works Manager	City of Visalia	Public Works	
Paul Melikian	Interim City Manager	City of Tulare	Administration	
Pete Marquez	Division Chief	Tulare County	Fire Department	
Ramon Lara	City Manager	City of Woodlake	Administration	
Randy Groom	City Manager	City of Exeter	Administration	

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3

January 17, 2017

2:30 pm - 4:00 pm

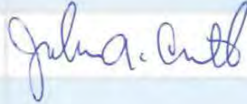



Name	Title	Jurisdiction	Agency/Department	Signature
Kevin Mizner	Police Chief	College of the Sequoias	Police Department	
Kyria Martinez	Analyst, Economic Development	Tulare County	Resource Management Agency	
Larry Micari	Captain	Tulare County	Sheriff's Office	
Luis Nevarez	Chief	City of Tulare	Fire Department	
Luis Patlan	City Manager	City of Dinuba	Administration	
Lupe Garcia	Associate Engineer	City of Visalia	Community Development	
Mari Carillo		City of Lindsay	Department of Public Safety	
Marilyn Kinoshita	Ag-Commissioner/ Sealer	Tulare County	Agriculture	
Mark Clark		Tulare County	Information & Communications Tech.	
Mike Boudreaux	Sheriff	Tulare County	Sheriff's Office	
Mike Camarena	City Services Director	City of Lindsay	Public Works	
Mike Dickerson		Tulare County	General Services	

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3

January 17, 2017

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Joanne Bear	Captain	Tulare County	Fire Department	
Joe Boy Perez	Director of Emergency Services	Tule River Indian Tribe	Emergency Services	
John Caudle	Assistant Superintendent	Tulare County Office of Ed	TCOE	
John Crivello	Fire Chief	City of Farmersville	Fire Department	
John Hess		Tulare County	General Services	
John Jansons	City Manager	City of Farmersville	Administration	
John Lollis	City Manager	City of Porterville	Administration	
Johnny Wong	Engineer	Tulare County	Resource Management Agency	
Joseph Carlini	Public Works Director	City of Tulare	Public Works	
Karen Haught	Health Officer	Tulare County	Health and Human Services Agency	
Karl Kassner	Captain	City of Visalia	Fire Department	
Kevin Kemmerling	Sergeant	Tulare County	Sheriff's Office	

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Sample 10



Sample 11

January 18, 2017

To: Andrew Lockman

From: Lee Rosenberg

On January 17, the County of Tulare (County) hosted a meeting to continue the process of updating its multi-jurisdictional local hazard mitigation plan (MJLHMP) for the County. Attendees, which form the MJLHMP planning team, included representatives from County agencies, participating jurisdictions and special districts, and the Tule River Indian Tribe. **Table 1** provides a complete list.

Table 1: Planning Team Meeting #3 Attendees

Jurisdiction	Agency/Department	Name	Title
City of Dinuba	Fire Department	Sean Doyle	Battalion Chief
City of Tulare	Fire Department	Cameron Long	Chief
City of Visalia	Public Works	Adam Ennis	Director
City of Visalia	Fire Department	Danny Wristen	Chief
City of Visalia	Fire Department	Doug McBee	Chief
City of Visalia	Fire Department	Karl Kassner	Captain
City of Visalia	Public Works	Norm Goldstrom	Public Works Manager

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Jurisdiction	Agency/Department	Name	Title
Tulare County	Resource Management Agency	Dave Bryant	Chief Planner
Tulare County	Resource Management Agency	Jonny Wong	Engineer
Tulare County	County Counsel	Jennifer Takehana	Deputy County Counsel
Tulare County	Health and Human Services Agency	Dave Lee	OES Specialist
Tulare County	Health and Human Services Agency	Andrew Lockman	Staff Services Analyst
Tulare County	Health and Human Services Agency	Kelly Erazo	Emergency Services Manager
Tulare County	Fire Department	Pete Marquez	Division Chief
Tulare County	Information and Communications Tech	Bob Irvine	Division Manager
Tulare County			
Tulare County	Fire Department	Joanne Bear	Fire Chief
Tulare County	Sheriff's Office	Kevin Kemmerling	Sergeant
Tulare County	Agriculture	Marilyn Kinoshita	Ag-Commissioner/Sealer
Tulare County	Information & Communications Tech.	Mark Clark	GIS Coordinator
Tulare County	Sheriff's Office	Robert Schimpf	Lieutenant
Tule River Indian Tribe	Emergency Services	Joe Boy Perez	Director of Emergency Services
Tule River Indian Tribe	Tule River Fire Department	Richard Brown	Chief
Navigating Preparedness Assoc.		Lee Rosenberg	Managing Director

Summary of Discussion

4. Navigating Preparedness Associates (NPA) reviewed progress in updating the MJLHMP and stressed the need to complete inputs on infrastructure, capabilities, completed and ongoing mitigation activities from the 2011 HMP, and information on recent hazard incidents. The remainder of the meeting involved reviewing draft mitigation goals and activities to include in the MJLHMP. The goals and mitigation activities selected are listed in **Tables 2 and 3**:

Additionally, the team reviewed the remaining work required to create a draft MJLHMP. Tasks include:

- Conduct public outreach and include documentation as an appendix
- Include documentation of the planning process as an appendix
- Compile hazard maps with infrastructure layers
- Based upon mitigation actions selected, prioritize, and assign timing and resources
- Develop jurisdiction annexes
- Complete the FEMA HMP Plan Review Crosswalk Tool
- Submit draft MJLHMP to Cal OES for review
- Adjudicate FEMA Region IX review comments
- Present draft MJLHMP to County Board for adoption

The team discussed additional items that need to be accomplished that were not previously addressed. They include:

- Climate Action Plan may not be sufficient for GC 6534 G4. Dave Bryant has language and will send to NPA
- January 31st deadline for providing mitigation actions that may have omitted

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

- Additional drought mitigation activities such as recycled water and ground water restoration activities
- Mitigation activities for the Tule River Tribe such as retrofitting the 21-ton bridge and flood control efforts at Chimney Rock Rd.
- Conducting the next meeting on February 28, 2017 with a draft of the MJLHMP available by February 28, 2017.

Points of Contact

For concerns or questions regarding these notes, please contact:

Lee Rosenberg, (925) 381-0583 or lee.rosenberg@navigatingpreparedness.com or Dave Lee (559) 624-7496 or DLEE@tularehhsa.org

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

On March 14, 2017, a fourth planning team meeting was conducted. The meeting invitation, presentation cover page and notes follow:

Sample 12

On 3/9/2017 at 3:55 PM, Dave
Lee wrote: Regard to All,

This is a friendly reminder that our MJLHMP Planning Meeting #4 is scheduled for next Tuesday, March 14, 2017 at 2:00, at the [County Resource Management Agency's Main Conference Room](#).

We also gently remind the planning team that our planning consultant will need your respective feedback after review of the Annexes, in advance of our meeting on Tuesday. Feedback can be provided via this form:
<http://oes.tularecounty.ca.gov/oes/index.cfm/mitigation/draft-mjlhmp-feedback/>.

We also gently remind the planning team (those who have participated in the planning meetings) that OES needs your respective HMGP Timesheets (attached spreadsheet), in order to meet soft match requirements.

We have been tracking the sign in sheets, and will reach out on an individual basis to collect the timesheets after Tuesday's meeting.

Please contact us with any questions, and thank you all for your efforts.

Sincerely,
Dave Lee OES
Specialist

[Tulare County Office of Emergency Services \(OES\)](#)
[5957 South Mooney Boulevard](#)

[Visalia, California 93277](#)

Hours: Monday-Thursday, 7:30 AM - 5:00 PM

(559) 624-7496 Office

(559) 553-1125 [Facsimile](#)

(559) 827-7600 Mobile

[Register for AlertTC!](#)

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Sample 13

Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3
January 17, 2017
2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Daymon Qualls	Public Works Director	City of Exeter	Public Works	
Dennis Lehman	Manager	Tulare County	Resource Management Agency	
Devon Popovich	Chief	City of Dinuba	Police Department	
Doug McBee	Fire Chief	City of Visalia	Fire Department	
Eric Coyne	Deputy CAO	Tulare County	County Administrative Office	
Glenn Hall	Battalion Chief	City of Porterville	Fire Department	
Glenn Irish	Fire Chief	City of Porterville	Fire Department	
Jacqui Balderas	Administrative Aide	Tulare County	Office of Emergency Services	
Jason Britt	Public Health Director	Tulare County	Health and Human Services Agency	
Jeff Ramsay	Director	Tulare County Office of Ed	General Services	
Jeffery McLaughlin	Chief	Tulare County	Fire Department	
Jennifer Takehana	Deputy County Counsel	Tulare County	County Counsel	

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3

January 17, 2017

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Carrie Amador	Staff Services Analyst	Tulare County	Health and Human Services Agency	
Chad Thompson	Fire Chief	City of Dinuba	Fire Department	
Charles Norman	Fire Chief	Tulare County	Fire Department	
Chris Hughes	Chief	City of Lindsay	Department of Public Safety	
Cliff Bush	Police Chief	City of Exeter	Police Department	
Dake Wyckoff	Public Works Director	City of Farmersville	Public Works	
Danny Wristen	Chief	City of Visalia	Fire Department	
Darrin Hughes	Battalion Chief	City of Visalia	Fire Department	
Dave Bryant	Chief Planner	Tulare County	Resource Management Agency	
Dave Lee	OES Specialist	Tulare County	Health and Human Services Agency	
David Cornett	Captain	Tulare County	Fire Department	
David Rozell	Manager	Tulare County	Health and Human Services Agency	

Doug McBee | Fire Chief | Visalia City | Fire Dept



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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3

January 17, 2017

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Adam Ennis	Director	City of Visalia	Public Works	
Adam Valencia		Tulare County Office of Ed	TCOE	
Adrian Ornelas	Public Works Supervisor	City of Woodlake	Public Works	
Andrew Lockman	Manager	Tulare County	Health and Human Services Agency	
Anthony Perez	Fire Chief	City of Woodlake	Fire Protection District	
Ben Ruiz	RMA Director	Tulare County	Resource Management Agency	
Bill Zigler	City Manager	City of Lindsay	Administration	
Blanca Beltran	Public Works Director	City of Dinuba	Public Works	
Bob Irvine	Division Manager	Tulare County	Information & Communications Tech.	
Brett Inglehart	Sergeant	City of Exeter	Police Department	
Bryce Howard	Director	Tulare County	Resource Management Agency	
Cameron Long	Chief	City of Tulare	Fire Department	

Richard Brown Tulare Fire Dept.

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3

January 17, 2017

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Mike Marquez	Police Chief	City of Woodlake	Police Department	
Mike Olmos	City Manager	City of Visalia	Administration	
Mike Reed	Public Works Director	City of Porterville	Public Works	
Mike Spata	County Administrative Officer	Tulare County	County Administrative Office	
Mike Washam	Director	Tulare County	Resource Management Agency	
Neil Pilegard	Parks Manager	Tulare County	General Services	
Nilsa Gonzalez	Env. Health Director	Tulare County	Health and Human Services Agency	
Norm Goldstrom	Public Works Manager	City of Visalia	Public Works	
Paul Melikian	Interim City Manager	City of Tulare	Administration	
Pete Marquez	Division Chief	Tulare County	Fire Department	
Ramon Lara	City Manager	City of Woodlake	Administration	
Randy Groom	City Manager	City of Exeter	Administration	

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3

January 17, 2017

2:30 pm - 4:00 pm



Name	Title	Jurisdiction	Agency/Department	Signature
Kevin Mizner	Police Chief	College of the Sequoias	Police Department	
Kyria Martinez	Analyst, Economic Development	Tulare County	Resource Management Agency	
Larry Micari	Captain	Tulare County	Sheriff's Office	
Luis Nevarez	Chief	City of Tulare	Fire Department	
Luis Patlan	City Manager	City of Dinuba	Administration	
Lupe Garcia	Associate Engineer	City of Visalia	Community Development	
Mari Carillo		City of Lindsay	Department of Public Safety	
Marilyn Kinoshita	Ag-Commissioner/ Sealer	Tulare County	Agriculture	
Mark Clark		Tulare County	Information & Communications Tech.	
Mike Boudreaux	Sheriff	Tulare County	Sheriff's Office	
Mike Camarena	City Services Director	City of Lindsay	Public Works	
Mike Dickerson		Tulare County	General Services	

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Tulare Multi-Jurisdictional Hazard Mitigation Plan Update Meeting #3

January 17, 2017

2:30 pm - 4:00 pm

Name	Title	Jurisdiction	Agency/Department	Signature
Joanne Bear	Captain	Tulare County	Fire Department	
Joe Boy Perez	Director of Emergency Services	Tule River Indian Tribe	Emergency Services	
John Caudle	Assistant Superintendent	Tulare County Office of Ed	TCOE	
John Crivello	Fire Chief	City of Farmersville	Fire Department	
John Hess		Tulare County	General Services	
John Jansons	City Manager	City of Farmersville	Administration	
John Lollis	City Manager	City of Porterville	Administration	
Johnny Wong	Engineer	Tulare County	Resource Management Agency	
Joseph Carlini	Public Works Director	City of Tulare	Public Works	
Karen Haught	Health Officer	Tulare County	Health and Human Services Agency	
Karl Kassner	Captain	City of Visalia	Fire Department	
Kevin Kemmerling	Sergeant	Tulare County	Sheriff's Office	K2

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Sample 14



Sample 15

March 16, 2017

To: Andrew Lockman

From: Lee Rosenberg

On March 14, the County of Tulare (County) hosted a meeting to continue the process of updating its multi-jurisdictional local hazard mitigation plan (MJLHMP) for the County. Attendees, which form the MJLHMP planning team, included representatives from County agencies, participating jurisdictions and special districts, and the Tule River Tribe. **Table 1** provides a complete list.

Table 1: Planning Team Meeting #4 Attendees

Jurisdiction	Agency/Department	Name	Title
City of Dinuba	Fire Department	Sean Doyle	Battalion Chief
City of Exeter	Public Works	Daymon Qualls	Director
City of Farmerville	Fire Department	John Crivello	Chief
City of Lindsay	Public Works	Mike Camarena	City Services Director

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Jurisdiction	Agency/Department	Name	Title
City of Porterville	Fire Department	Glenn Hall	Battalion Chief
City of Porterville	Fire Department	Rick Land	Captain
City of Visalia	Fire Department	Danny Wristen	Chief
City of Visalia	Fire Department	Karl Kassner	Captain
Tulare County	Resource Management Agency	Dave Bryant	Chief Planner
Tulare County	Staff Services	Carrie Amador	Analyst
Tulare County	IT and Communications	Mark Clark	Director
Tulare County	Resource Management Agency	Jonny Wong	Engineer
Tulare County	County Counsel	Matt Wang	Deputy County Counsel
Tulare County	Health and Human Services Agency/OES	Dave Lee	OES Specialist
Tulare County	Health and Human Services Agency/OES	Andrew Lockman	Emergency Services Manager
Tulare County	Health and Human Services Agency/OES	Jacqui Balderas	Administrative Aid
Tulare County	Environmental Health	Nilsa Gonzalez	Director
Tulare County	Health and Human Services Agency	Kelly Erazo	Analyst
Tulare County	Sheriff's Office	Robert Schimpf	Lieutenant
Tule River Tribe	Tule River Fire Department	Richard Brown	Chief
Navigating Preparedness Assoc.		Lee Rosenberg	Managing Director

Summary of Discussion

1. Navigating Preparedness Associates (NPA) reviewed progress in updating the MJLHMP and provided each of the participating local jurisdictions with copies of their own annex. The jurisdictions then broke into working groups to review the draft annexes. The goals of the working groups were to verify general information in the annexes, review and add to the proposed mitigation activities, and validate capabilities and infrastructure (applicable hazards, value, location).
2. County staff worked in a group to use the STAPLEE prioritization tools to evaluate potential mitigation activities, rank them in term of implementation, and attempt to identify potential funding sources and the responsible County Department.
3. Both the County and the local jurisdiction groups spent up to 1 ½ hours updating critical sections of the MJLHMP. As part of the explanatory material preceding the group breakouts, the participants were asked to provide final inputs by the end of March to allow developing an updated draft.
4. Additionally, the team reviewed the remaining work required to create a draft MJLHMP. Tasks include:
 - Conduct public outreach and include documentation as an appendix
 - Include documentation of the planning process as an appendix
 - Based upon mitigation actions selected, prioritize, and assign timing and resources
 - Complete the FEMA HMP Plan Review Crosswalk Tool
 - Submit draft MJLHMP to Cal OES for review

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

- Adjudicate FEMA Region IX review comments
 - Present draft MJLHMP to County Board and local jurisdiction councils for adoption
5. The team discussed additional items that need to be accomplished that were not previously addressed. They include:
- The County's 2012 Climate Action Plan may not be sufficient for meeting the requirements of GC 6534-G4. Dave Bryant, Resource Management Agency, will conduct a crosswalk of the Climate Action Plan, General Plan Health and Safety Element and MJLHMP and will provide NPA with a list of potential gaps that may be addressed in the climate change hazard analysis section of the plan and lead to additional mitigation activities.
 - Mark Clark of IT and Communications Technology suggested adding cyberterrorism threats to the terrorism hazard analysis and considering mitigation activities to counter potential cyber threats to the County. NPA will review the hazard analysis for terrorism and add material on cyber risks.

Points of Contact

For concerns or questions regarding these notes, please contact:

Lee Rosenberg, (925) 381-0583 or lee.rosenberg@navigatingpreparedness.com or Dave Lee (559) 624-7496 or DLEE@tularehhsa.org

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Sample 16

Jurisdiction overview data collection tool



Navigating Preparedness Associates
"Charting A Clear Course"



Hazard Mitigation Checklist

Local Agency: **CITY OF LINDSAY**

POC: **PUBLIC SAFETY, CHIEF CHRIS HUGHES** **PUBLIC WORKS, MIKE CAMARENA**

POC phone: **CHIEF CHRIS HUGHES, 559.333.6136** **MIKE CAMARENA, 559.333.4107**

POC email: **CHIEF HUGHES, chughes@lindsay.ca.us** **MIKE CAMARENA, engineering@lindsay.ca.us**

Have there been any hazard occurrences since 2010? **YES**

If so provide the following for each (add other hazard occurrences on a second page):

Hazard: **FLOOD** Date: **DEC. 2010-FEB. 2011**

Description (include deaths and/or injuries, bldg. damage, infrastructure damage, police/fire/EM services to support such as overtime):

MINOR FLOOD DAMAGE TO SCHOOL SITE UNDER CONSTRUCTION; MINOR FLOOD DAMAGE TO STORM DRAINS AND FEW CITY FACILITIES (LEAK DAMAGE).

Estimate Cost of Damages: **\$50,000**

Any NFIP structures? If so, how many? **NO** Any repetitively flooded structures that flooded since 2010? If so, how many? **NO** Description and estimated costs of damages:

Review agency specific mitigation actions, critical infrastructure and capabilities outlined in the 2011 Plan (tables attached).

Identify any local-specific community organizations or groups that could be included in the planning process(name, POC, e-mail and/or phone number):

Identify local methods for public engagement (place on local website, put a copy in the library, conduct outreach surveys, include hazard mitigation in other meetings/events):

FACEBOOK NOTIFICATION; CITY WEBSITE; LOCAL PUBLIC FACILITY POSTING

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Jurisdiction Mitigation Actions Update

City of Lindsay Hazard Mitigation Actions 2016

Mitigation Actions are specific actions, projects, activities or processes taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. General types include plans and regulations, structure and infrastructure projects, natural systems protection and education and awareness programs. Examples include:

Plans and regulations – building codes, land use ordinances, NFIP community rating system, capital improvement projects, stormwater management plans, subdivision regulations.

Structure and infrastructure projects – acquisition and elevation of structures in flood prone areas, structural retrofit, utility underground, retaining walls, detention and retention structures, culverts, safe rooms

Natural system protection – erosion control, stream restoration, forest management, conservation easement, wetland restoration

Education and awareness – radio and television, websites, real estate disclosure, presentations to schools or neighborhood organizations, mailings to residents in hazard-prone areas, Firewise and Stormready communities

2011 Mitigation Actions

Status (New, Current, Ongoing, or Completed) If completed include date	Project Name	Description	Hazards Addressed	Costs of Construction (if known)	Prioritization (1=current, 2=begin within the next year, 3= begin within 1-5 year, 4= begin 5+ years)
Current	All City facilities	Bolt down the roofs of critical facilities in wind gust hazard areas in order to prevent wind damage.	Severe Winter Storm		3
Current		Implement a fuel reduction program, such as the collection and disposal of dead fuel, within open spaces and around critical facilities and residential structures located within a high and very high wildfire zones.	Wildfire		1
Current		Create a vegetation management program that provides vegetation management services to elderly, disabled, or low-income property owners who lack the resources to remove flammable vegetation from around their homes.	Wildfire		3
Current		Develop a community wildfire mitigation plan that identifies and prioritizes areas for hazard fuel reduction treatments, and recommend the types of methods of treatments.	Wildfires		4

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Jurisdiction Capabilities Update

City of Lindsay Capabilities

Capabilities are defined as follows:

Planning and Regulatory – local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Administrative and Technical – community (including public and private) staff and their skills and tools used for mitigation planning and implementation. Include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers. Small communities may rely on other government entities such as counties or special districts for resources.

Financial – general funds, property sales, income taxes, development impact fees, or stormwater utility fees.

Education and Outreach – Programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

2011 HMP Capabilities

Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Planning, Regulatory, Administrative, Technical, or Financial) If known
Planners, engineers and technical staff within the Planning Division	Develops and maintains the General Plan, including the Safety Element. Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. Anticipates and acts on the need for new plans, policies, and Code changes. Applies the approved plans, policies, code provisions, and other regulations to proposed land uses.	All		Planning
Engineers, Inspectors, Code enforcement officers, and other technical staff within the	Oversees the effective, efficient, fair, and safe enforcement of the California Building Code.	All		Planning, Technical, Regulatory

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Jurisdiction Asset Inventory Update

City of Lindsay Community Asset Inventory

An **asset inventory** is used to identify assets that may be more vulnerable due to physical characteristics or socioeconomic uses. Assets are categorized as people, economy, built environment and natural environment.

- **People** – include population estimates, visiting population estimates (migrants, national parks or special events) and access or functional needs population (non-English speakers, physically or mentally disabled, children, and hospital patients).
- **Economy** – Economic drivers include building assets but also include inventory within buildings, downtime and loss of wages. In addition, primary economic sectors (major employers) where their loss would have a significant impact to the community.
- **Built Environment** – Existing structures, infrastructure systems, critical facilities cultural resources, and future development.
- **Natural Resources** – Critical habitats and areas that provide protective functions.

2011 Asset Inventory

Name	Address	Value (2011 values are included where provided)	Asset Category	Hazard
CCPI Discharge Line-3 booster pumps	23620 Road 180	\$1,500,000		Earthquake, 500-Year Floodplain, Dam Flood, Fog
City Park	Parkside Avenue and E. Alameda Street	\$3,000,000		Earthquake, 500-Year Floodplain, Fog
City Services Department	150 N. Mirage Avenue	\$150,000		Earthquake, Fog
F.M. Moore Building	Honolulu Street	\$20,000		Earthquake, 500-Year Floodplain, Fog
Friant Kern Canal	E. Honolulu Street	\$500,000		Earthquake, 500-Year Floodplain, Fog
Harvard Park	N. Harvard Avenue	\$500,000		Earthquake, 100-Year Floodplain, Fog
Harvard Ponding Basin	N. Harvard Avenue and E. Tulare Rd	\$500,000		Earthquake, 100-Year Floodplain, Fog
Hickory Lift Station	Hickory/Tulare Road	\$250,000		Earthquake, Fog
Kaku Park	N. Olive Avenue and W. Samoa Street	\$200,000		Earthquake, Fog
Lindsay Chamber of Commerce/Sierra Vista Plaza	133 W. Honolulu Street	\$150,000		Earthquake, Fog
Lindsay City Hall	251 E. Honolulu Street	\$1,000,000		Earthquake, Fog
Lindsay Corporation Yard	476 N. Mount Vernon Avenue	\$250,000		Earthquake, Fog
Lindsay Department of Public Safety	185 N. Gale Hill Avenue	\$250,000		Earthquake, Fog
Lindsay Historical Museum	Gale Hill Avenue	\$100,000		Earthquake, 500-Year Floodplain, Fog

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Sample 17

From: Dave Lee
To: jwaters@ci.woodlake.ca.us
Cc: rlara@ci.woodlake.ca.us; Andrew Lockman
Subject: Fwd: Tulare County Hazard Mitigation Plan Revisions Notice
Date: Tuesday, March 06, 2018 8:31:27 AM
Attachments: [City of Woodlake Hazard Mitigation Actions.docx](#)

Dear Mr. Waters,

Thanks for your review of the 2011 MJLHMP and quick turnaround with your inputs. The City's update to the status of the 2011 mitigation measures and inclusion of several specific new mitigation measures for the City will improve the Woodlake Annex to the Plan. I think using the FEMA Mitigation Ideas to develop new mitigation activities was particularly helpful.

I'll send a revised copy of the Woodlake Annex for your review once we complete updating it with your input.

Sincerely,
Dave Lee | OES Specialist
[Tulare County Office of Emergency Services \(OES\)](#)
[5357 South Mooney Boulevard](#)
[Visalia, California 93277](#)
(559) 624-7496 Office | (559) 553-1125 [Facsimile](#)
(559) 827-7600 Mobile

[Register for AlertTCL](#)

On 3/5/2018 at 4:11 PM, Jason Waters <jwaters@ci.woodlake.ca.us> wrote:
Hi Dave,

We made a few additions to the Hazard Mitigation Actions. Is this sufficient or is additional information needed? Thanks.

Jason Waters
City of Woodlake
559-564-8055

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix D Planning Process Documentation

Sample 18

From: Andrew Lockman
To: kaustin@co.fresno.ca.us; gamstrong@co.kern.ca.us; Amanda.Verhaege@co.kings.ca.us
Subject: Tulare MJLHMP: Neighboring Jurisdiction Hazard Mitigation Plan Review
Date: Monday, March 05, 2018 10:45:10 AM

Good morning Region V neighbors,

Please see below for a link to Tulare's nearly completed Multi-Jurisdictional LHMP. As part of the planning process, we are reaching out to our neighbors to invite you or other appropriate individual(s) within your organization to review and provide any comments in regards to our plan.

Thanks,
Andrew

Begin forwarded message:

From: "Dave Lee" <DLEE@tularehhsa.org>
Date: March 5, 2018 at 09:48:29 PST
To: "Andrew Lockman" <ALockman@tularehhsa.org>
Subject: MJLHMP: Neighboring Jurisdiction Hazard Mitigation Plan Review

<http://oes.tularecounty.ca.gov/oes/index.cfm/mitigation/>

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Appendix E Public Outreach Documentation

This appendix includes documentation of the 2017 MJLHMP public engagement process. Public outreach consisted of the following:

- Providing a continuing page on the County OES website providing announcements and updates on the planning process. A copy of the draft MJLHMP was also posted on the website for County residents to review. County Facebook and twitter accounts were used to advertise the webpage. See Sample 1
- A survey was developed and place on the County OES website soliciting feedback on hazards, potential mitigation measures and priorities, general community preparedness. Nine surveys were returned. The results of the survey were used to inform hazard CPRI and select and prioritize mitigation measures. See Samples 2 and 3
- All planning team participants were notified of the draft MJLHMP being place on the County OES website. Participating jurisdictions were provided a copy of the plan to place on their own media. Both the County Agricultural Commission and the City of Lindsay placed pages on their websites soliciting feedback. See Samples 4 through 6
- The draft MJLHMP was place on the County OES Website on June 16 through July 15 and a survey form provided for public comment. See Sample 7

The public survey input from the 12 responders was used to select hazards and rank their affects. Earthquake and energy emergency were ranked as the two top hazards. This input was also used to inform the Hazard Identification and Prioritization Summary contained in **Table 5-13**. Finally, survey input was used to select mitigation actions. Input from posting the draft MJLHMP was used to refine the Plan and prepared it for submission for review


2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Sample 1

Mitigation Phase - Office of Emergency Services



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**OFFICE OF
EMERGENCY
SERVICES**



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[Preparedness](#)

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[Recovery](#)

[Mitigation](#)

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[Homeland Security Grant](#)

Did you know ...

- Only 36 percent of individuals believed there was a high likelihood of a natural disaster to EVER happen in their community? (2009 Citizen Corps National Survey)
- Only 57% of people report that they have readiness items set aside in their homes for use in disaster? **Find out more - Get a Kit.**
- Just 14% of people have readiness supplies in their car?
- Less than half of households have an Emergency Plan? **Find out More - Make a Plan.**
- 42% of individuals report that they would need help during a disaster?

Home » Mitigation

Mitigation

Mitigation is a process by which hazards are identified, vulnerabilities to these hazards assessed, and actions taken to lessen the impact of the hazard on human life, property, and the community at large. Once mitigation strategies are identified, mitigation projects can be submitted to FEMA for possible grant funding.

Tulare County OES encourages the public to be aware of the hazards that may impact you. The California Governor's Office of Emergency Services (Cal OES) maintains the **MyHazards** website, which allows you to view Earthquake, Flood, and Fire hazard information, along with preparedness measures, for any address in the state. Click on the link above, or navigate to <http://myhazards.caloes.ca.gov/> to use the MyHazards website.



SIGN UP NOW
NOTIFICATION
AlertTC

IN AN EMERGENCY
DIAL 9-1-1

Local Hazard Mitigation Plan (2008-2012)

Tulare County has received a federal Hazard Mitigation Grant Program (HMGP) grant to develop a Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) for the Tulare Operational Area (County and all cities and special districts).


As of August, 2011, the LHMP is in final draft form, and has been submitted to Cal OES for preliminary review. This plan was approved and adopted by Tulare County in January, 2012. The public may **view the plan here (PDF, 31MB)**.

Hazard Mitigation Plan Update (2016-2017)

Tulare County was awarded additional HMGP funds to develop an update to the Local Hazard Mitigation Plan. This update - built upon the foundations laid by the 2012 LHMP - will provide an enhanced Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP), and will incorporate additional elements as required by California Government Code §85302 (d) (4) for climate adaptation and drought. This **draft MJLHMP is available for review here**.

[Draft MJLHMP Update: Public Comments](#)

Powered by



See how easy it is to [create a survey](#).

<http://oes.tularecounty.ca.gov/oes/index.cfm/mitigation>[6/15/2017 1:53:49 PM]

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Sample 2

County of Tulare Hazard Mitigation Plan Survey

1. The residents and businesses in the County face a number of hazards that could potentially occur. How concerned are you about the following hazards? (Check one response for each hazard)

	Not Concerned	Somewhat Concerned	Concerned	Very Concerned	Extremely Concerned
Earthquake/Seismic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fire	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Levee Failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Landslides/Mudslides/Debris Flow	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drought	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy Emergency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dam Failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Epidemic/Pandemic/Vector Borne Disease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hazardous Material and Oil Spills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural Hazard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Terrorism/Cyber Terrorism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Civil Disturbance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fog	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extreme Heat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Severe Winter Storms/High Winds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Please specify)					

2. How prepared is your household to cope with a hazard event?

	Not Prepared at All	Somewhat Prepared	Adequately Prepared	Very Well Prepared	Not Sure
Check one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

3. Which of the following activities has your household taken to prepare for a hazard event? (Check all that apply)

- ☐ Prepared a disaster kit (Tools, gloves, dust masks, flashlights, eye protection, etc.)
- ☐ Stored water (one gallon a day/person for 5 days)
- ☐ Stored non-perishable food for 5 days
- ☐ Received first aid/CPR training
- ☐ Joined a Community Emergency Response Team (CERT)/taken CERT classes
- ☐ Stored medical needs/supplies (first aid kit, prescription medicines, extra glasses) at home, work or auto)
- ☐ Created a family reunification communications plan
- ☐ Identified utility shutoffs
- ☐ Installed smoke and carbon monoxide detectors on each floor of the house
- ☐ Have working portable fire extinguishers in appropriate areas such as the kitchen
- ☐ Purchased flood insurance
- ☐ Purchased earthquake insurance
- ☐ None

4. Which of the following sources of information do you use to help prepare for a hazard event? (Check all that apply)

- ☐ Government source such as federal, state or local website or Facebook account
- ☐ Community meetings that address disaster preparedness information
- ☐ CERT training
- ☐ Exhibit at a local fair or community event
- ☐ Civic organization involved in disaster preparedness such as American Red Cross or your church
- ☐ Personal experience with previous hazard or disaster
- ☐ School or academic institution
- ☐ Local news or regional media source (Other than social media)
- ☐ Phone book or distribution of printed material
- ☐ Other (Please specify)

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

5. Which of the following source of methods for receiving hazard and disaster preparedness information do you think are most effective? (Check all that apply)

- ☐ Social media
- ☐ Website other than social media such as Ready.gov
- ☐ Newspaper articles
- ☐ Telephone book
- ☐ Radio announcement
- ☐ Schools and academic institutions
- ☐ City newsletters
- ☐ Workshops
- ☐ Chamber of commerce or other civic group
- ☐ Fire department
- ☐ Law enforcement agency
- ☐ Church
- ☐ Public library
- ☐ Red Cross
- ☐ Public meetings
- ☐ Reverse 911
- ☐ Public awareness campaigns
- ☐ Other (Please specify)

6. What types of projects should the County/your city be accomplishing in order to reduce the damage and disruption from hazards? Please rank each option as low, medium or high priority.

	Low Priority	Medium Priority	High Priority
Strengthen codes and regulations to include higher regulatory standards in hazard areas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retrofit critical infrastructure such as roads and bridges, flood control systems, water and wastewater treatment plants, and power distribution systems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquire vulnerable properties and maintain as open space.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide better public information about risk and the exposure to hazards with in the County.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Implement projects that restore the capacity of the natural environment to absorb the impacts from hazards.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Implement projects that mitigate the potential impacts of climate change.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educate vulnerable property owners about the programs that support mitigation funding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Please specify)			

7. How important do you find the following County-wide actions or activities that may reduce the risks of hazards?

	Not Important	Somewhat Important	Very Important	Extremely Important
Prevention activities such as administrative actions that influence the way that land is develop and buildings constructed, such as planning, zoning and building codes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Property protection actions that involve the modification of existing building to protect them from a hazard or removal from the hazard area such as acquisition, relocation, elevation and structural retrofits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Structural projects intended to reduce the impact of a hazard by modifying the natural progression of the hazard such as detention/retention basins retaining walls and storm sewers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emergency services actions that protect people and property during an immediately after a hazard event, such as warning systems, evacuation planning emergency response training and protection of critical emergency facilities and systems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Public education and awareness activities designed to inform community member about hazards and the techniques the can use to protect themselves and their property such as outreach projects, CERT, school based programs, and public events or campaigns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Please specify)				

8. Please indicate how your feel about the following statement: It is the responsibility of government (local, state and federal) to provide education and programs that promote citizen action that reduce exposure to the risks associated with hazards.

	Strongly Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Strongly Agree
Check one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Please indicate how your feel about the following statement: It is my personal responsibility to be educated and take action that reduce my exposure to the risks associated with hazards.

	Strongly Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Strongly Agree
Check one	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Do you or anyone in your household have disabilities and / or access and functional needs that require early warning notification or specialized response to evacuate during disasters?

☐ Yes

☐ No

Other (Please specify)

11. If you answered yes to question 10, would you participate in a Disaster Assistance Registry for people with disabilities and / or access and functional needs?

☐ Yes

☐ No

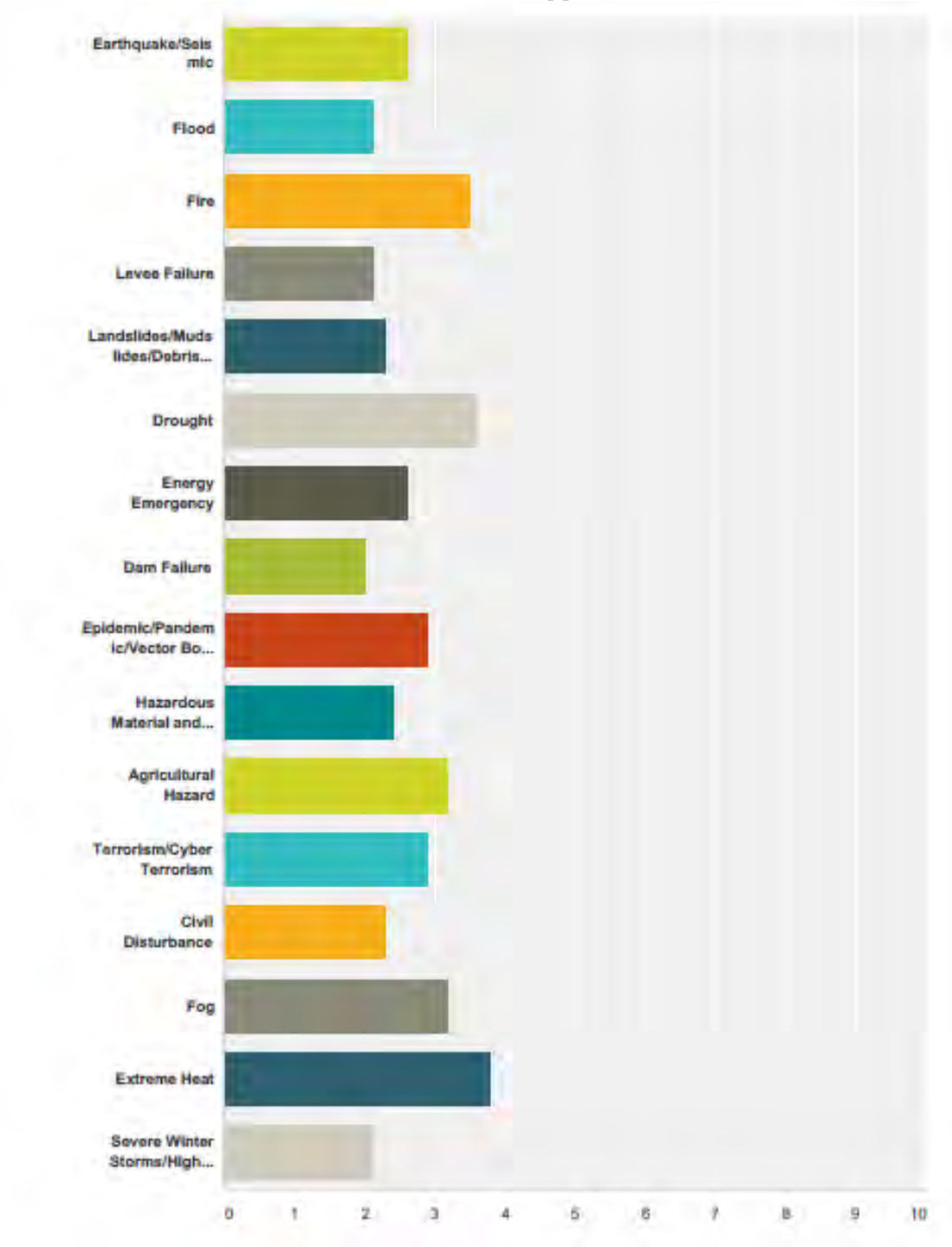
Other (Please specify)

Sample 3

County of Tulare Hazard Mitigation Plan Survey Responses

Q1 What types of hazards concern you the most? (rate each hazard)

Answered: 10 Skipped: 1



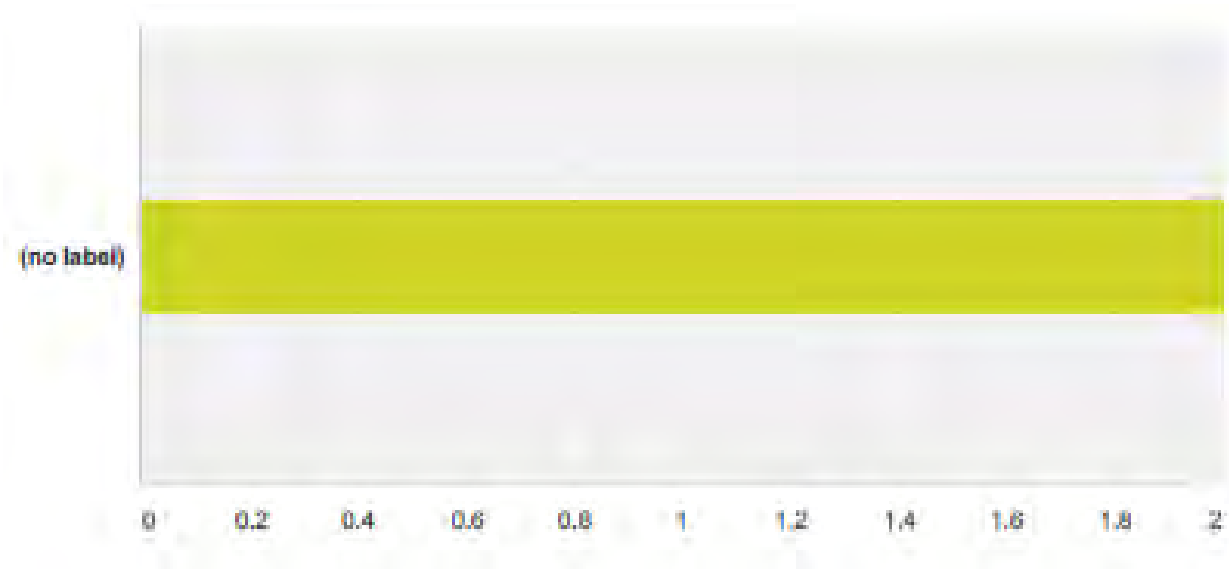
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	Not Concerned	Somewhat Concerned	Concerned	Very Concerned	Extremely Concerned	Total	Weighted Average
Earthquake/Seismic	20.00% 2	40.00% 4	10.00% 1	20.00% 2	10.00% 1	10	2.60
Flood	30.00% 3	40.00% 4	20.00% 2	10.00% 1	0.00% 0	10	2.10
Fire	10.00% 1	20.00% 2	20.00% 2	10.00% 1	40.00% 4	10	3.50
Levee Failure	20.00% 2	50.00% 5	30.00% 3	0.00% 0	0.00% 0	10	2.10
Landslides/Mudslides/Debris Flow	30.00% 3	30.00% 3	30.00% 3	0.00% 0	10.00% 1	10	2.30
Drought	10.00% 1	10.00% 1	30.00% 3	10.00% 1	40.00% 4	10	3.60
Energy Emergency	20.00% 2	20.00% 2	40.00% 4	20.00% 2	0.00% 0	10	2.60
Dam Failure	40.00% 4	30.00% 3	20.00% 2	10.00% 1	0.00% 0	10	2.00
Epidemic/Pandemic/Vector Borne Disease	20.00% 2	20.00% 2	30.00% 3	10.00% 1	20.00% 2	10	2.90
Hazardous Material and Oil Spills	30.00% 3	10.00% 1	50.00% 5	10.00% 1	0.00% 0	10	2.40
Agricultural Hazard	10.00% 1	10.00% 1	40.00% 4	30.00% 3	10.00% 1	10	3.20
Terrorism/Cyber Terrorism	20.00% 2	30.00% 3	10.00% 1	20.00% 2	20.00% 2	10	2.90
Civil Disturbance	30.00% 3	30.00% 3	20.00% 2	20.00% 2	0.00% 0	10	2.30
Fog	10.00% 1	20.00% 2	40.00% 4	0.00% 0	30.00% 3	10	3.20
Extreme Heat	0.00% 0	20.00% 2	30.00% 3	0.00% 0	50.00% 5	10	3.80
Severe Winter Storms/High Winds	40.00% 4	30.00% 3	20.00% 2	0.00% 0	10.00% 1	10	2.10

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Q2 How prepared are you for disasters?

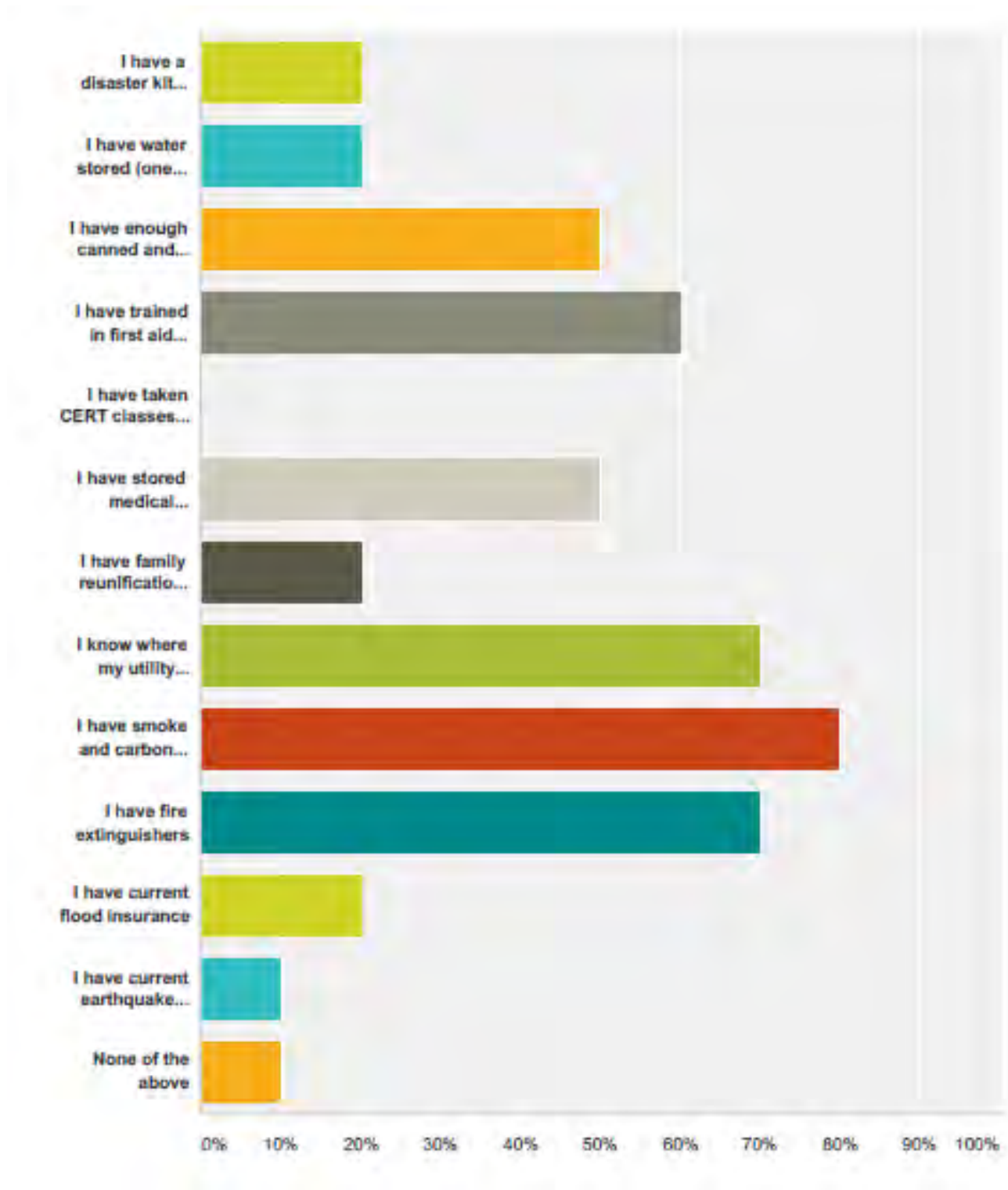
Answered: 10 Skipped: 1



	Not Prepared at All	Somewhat Prepared	Adequately Prepared	Very Well Prepared	Not Sure	Total	Weighted Average
(no label)	20.00% 2	70.00% 7	0.00% 0	10.00% 1	0.00% 0	10	2.00

Q3 What have you done to prepare for an emergency? (Check all that apply)

Answered: 10 Skipped: 1



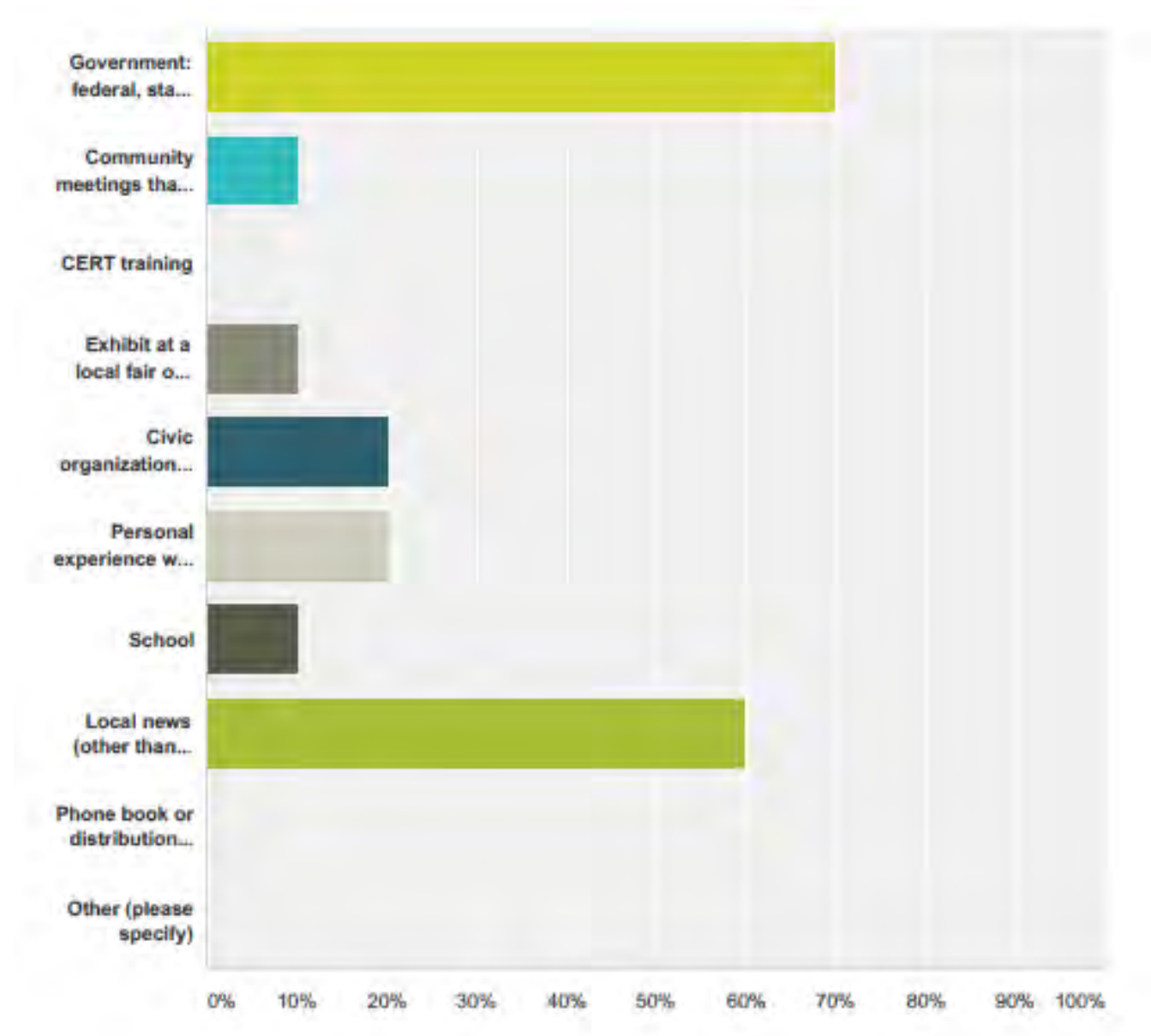
2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Answer Choices	Responses	
I have a disaster kit (tools, gloves, dust masks, flashlights, eye protection, etc.)	20.00%	2
I have water stored (one gallon a day/person for 5 days)	20.00%	2
I have enough canned and preserved food for 5 days	50.00%	5
I have trained in first aid and CPR	60.00%	6
I have taken CERT classes, or I am part of a CERT team	0.00%	0
I have stored medical supplies (first aid kit, prescription medicines, extra glasses, etc.)	50.00%	5
I have family reunification and/or family communications plans	20.00%	2
I know where my utility shutoffs are	70.00%	7
I have smoke and carbon monoxide detectors installed on each floor of my home	80.00%	8
I have fire extinguishers	70.00%	7
I have current flood insurance	20.00%	2
I have current earthquake insurance	10.00%	1
None of the above	10.00%	1
Total Respondents: 10		

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Q4 Who provides you information for emergency preparedness? (Check all that apply)

Answered: 10 Skipped: 1



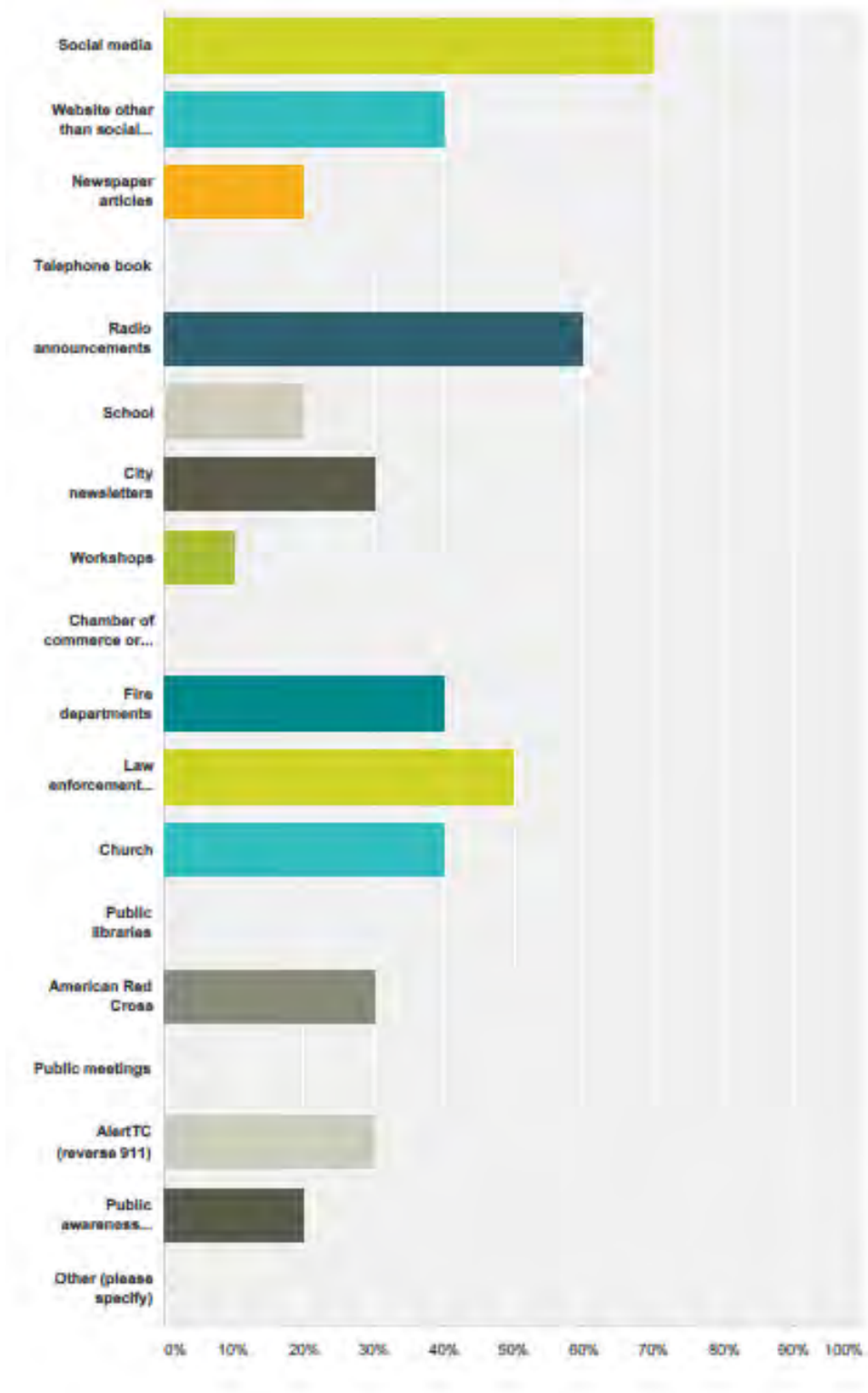
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Answer Choices	Responses	
Government: federal, state, or local website or Facebook account	70.00%	7
Community meetings that address emergency preparedness information	10.00%	1
CERT training	0.00%	0
Exhibit at a local fair or community event	10.00%	1
Civic organization involved in emergency preparedness such as American Red Cross or a church	20.00%	2
Personal experience with previous disaster or emergency	20.00%	2
School	10.00%	1
Local news (other than social media)	60.00%	6
Phone book or distribution of printed material	0.00%	0
Other (please specify)	0.00%	0
Total Respondents: 10		

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**Q5 Which of these emergency preparedness information sources are useful to you?
(Check all that apply)**

Answered: 10 Skipped: 1

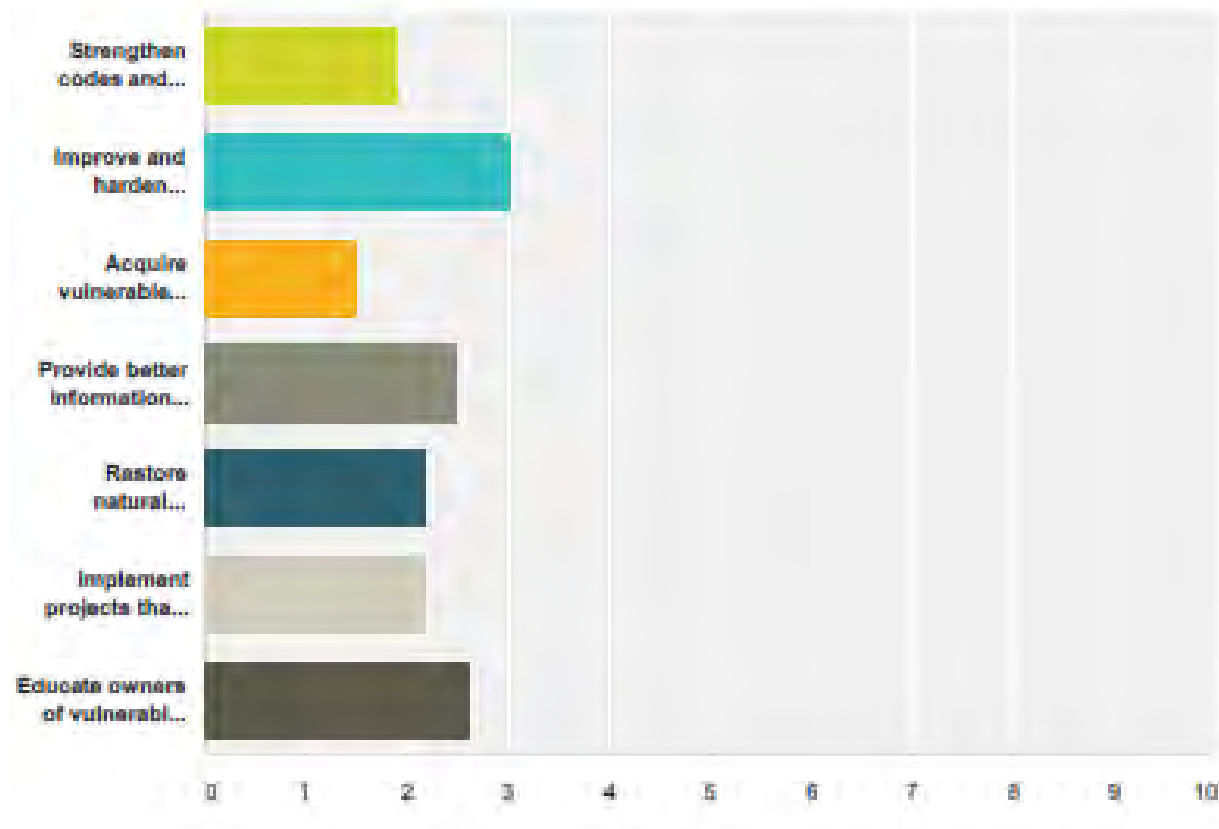


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Answer Choices	Responses	
Social media	70.00%	7
Website other than social media, such as Ready.gov	40.00%	4
Newspaper articles	20.00%	2
Telephone book	0.00%	0
Radio announcements	60.00%	6
School	20.00%	2
City newsletters	30.00%	3
Workshops	10.00%	1
Chamber of commerce or other civic groups	0.00%	0
Fire departments	40.00%	4
Law enforcement agencies	50.00%	5
Church	40.00%	4
Public libraries	0.00%	0
American Red Cross	30.00%	3
Public meetings	0.00%	0
AlertTC (reverse 911)	30.00%	3
Public awareness campaigns	20.00%	2
Other (please specify)	0.00%	0
Total Respondents: 10		

**Q6 What should local governments do in order to reduce damages and disruptions from hazards?
Please rank each option as low, medium or high priority.**

Answered: 10 Skipped: 1



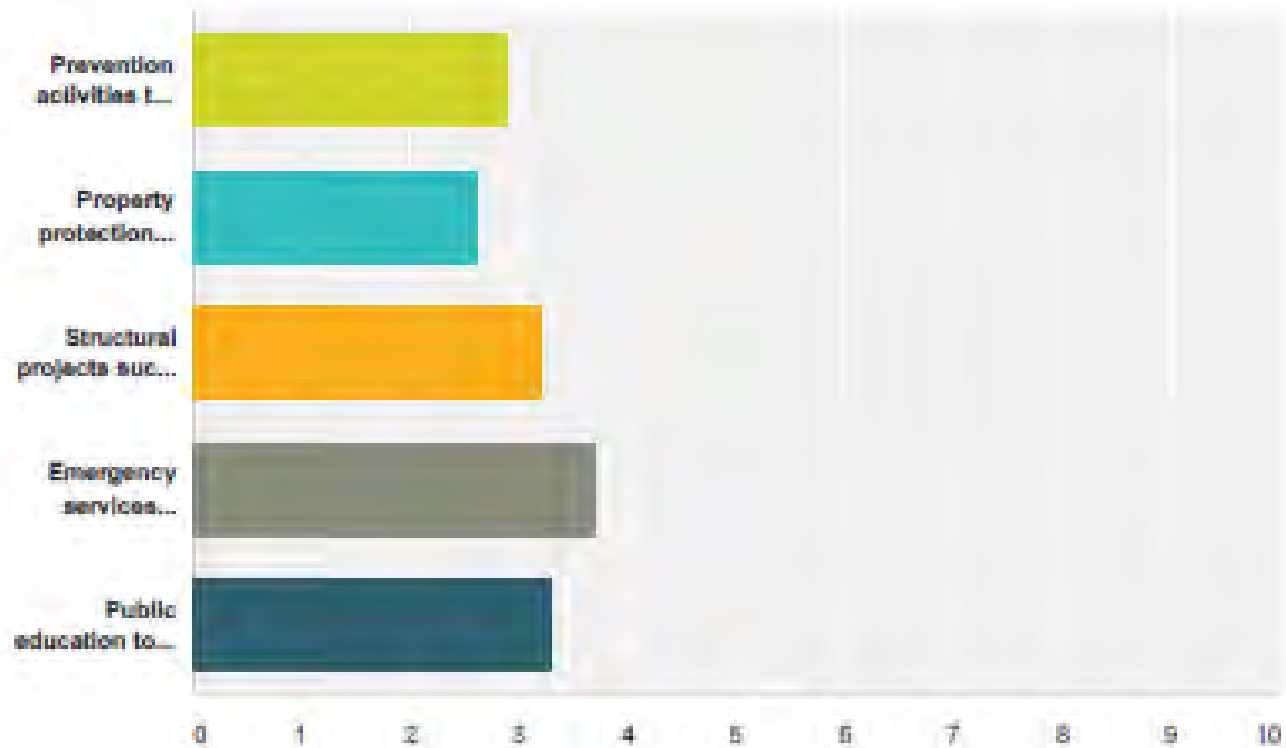
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	Low Priority	Medium Priority	High Priority	Total	Weighted Average
Strengthen codes and regulations to include higher regulatory standards in hazard areas.	22.22% 2	66.67% 6	11.11% 1	9	1.89
Improve and harden infrastructure (e.g. roads and bridges, flood control systems, water and wastewater treatment plants, and power distribution systems).	0.00% 0	0.00% 0	100.00% 10	10	3.00
Acquire vulnerable properties and maintain as open spaces.	50.00% 5	50.00% 5	0.00% 0	10	1.50
Provide better information about hazards within the County, and their risks.	0.00% 0	50.00% 5	50.00% 5	10	2.50
Restore natural environments to lessen the impacts of hazardous events.	20.00% 2	40.00% 4	40.00% 4	10	2.20
Implement projects that lessen the potential impacts of climate change.	10.00% 1	60.00% 6	30.00% 3	10	2.20
Educate owners of vulnerable properties about programs that provide money for reducing hazards.	10.00% 1	20.00% 2	70.00% 7	10	2.60

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Q7 Please rate the importance of hazard- reducing actions or activities:

Answered: 10 Skipped: 1



	Not Important	Somewhat Important	Very Important	Extremely Important	Total	Weighted Average
Prevention activities that determines how land is developed and how buildings are constructed (e.g. planning, zoning and building codes).	0.00% 0	20.00% 2	70.00% 7	10.00% 1	10	2.90
Property protection actions such as acquisition, relocation, elevation and retrofitting.	0.00% 0	40.00% 4	60.00% 6	0.00% 0	10	2.60
Structural projects such as detention/retention basins retaining walls and storm sewers, that will reduce the impacts of hazards.	0.00% 0	10.00% 1	60.00% 6	30.00% 3	10	3.20
Emergency services actions that protect people and property during an emergency (e.g. warning systems, evacuation planning emergency response training and protection of critical emergency facilities and systems).	0.00% 0	0.00% 0	30.00% 3	70.00% 7	10	3.70
Public education to inform citizens about hazards, and what they can do to protect themselves and their property (e.g. outreach projects, CERT, school based programs, and public events or campaigns).	0.00% 0	20.00% 2	30.00% 3	50.00% 5	10	3.30

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Q8 Do you agree or disagree that it is the responsibility of government (local, state and federal) to provide education and design programs for citizens in order to reduce the risks from hazards?

Answered: 11 Skipped: 0



	Strongly Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Strongly Agree	Total	Weighted Average
Check one	0.00% 0	0.00% 0	18.18% 2	45.45% 5	36.36% 4	11	4.18

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Q9 Do you agree or disagree that it is your personal responsibility to be educated about risks from hazards, and to take personal action in order to reduce your risk?

Answered: 11 Skipped: 0

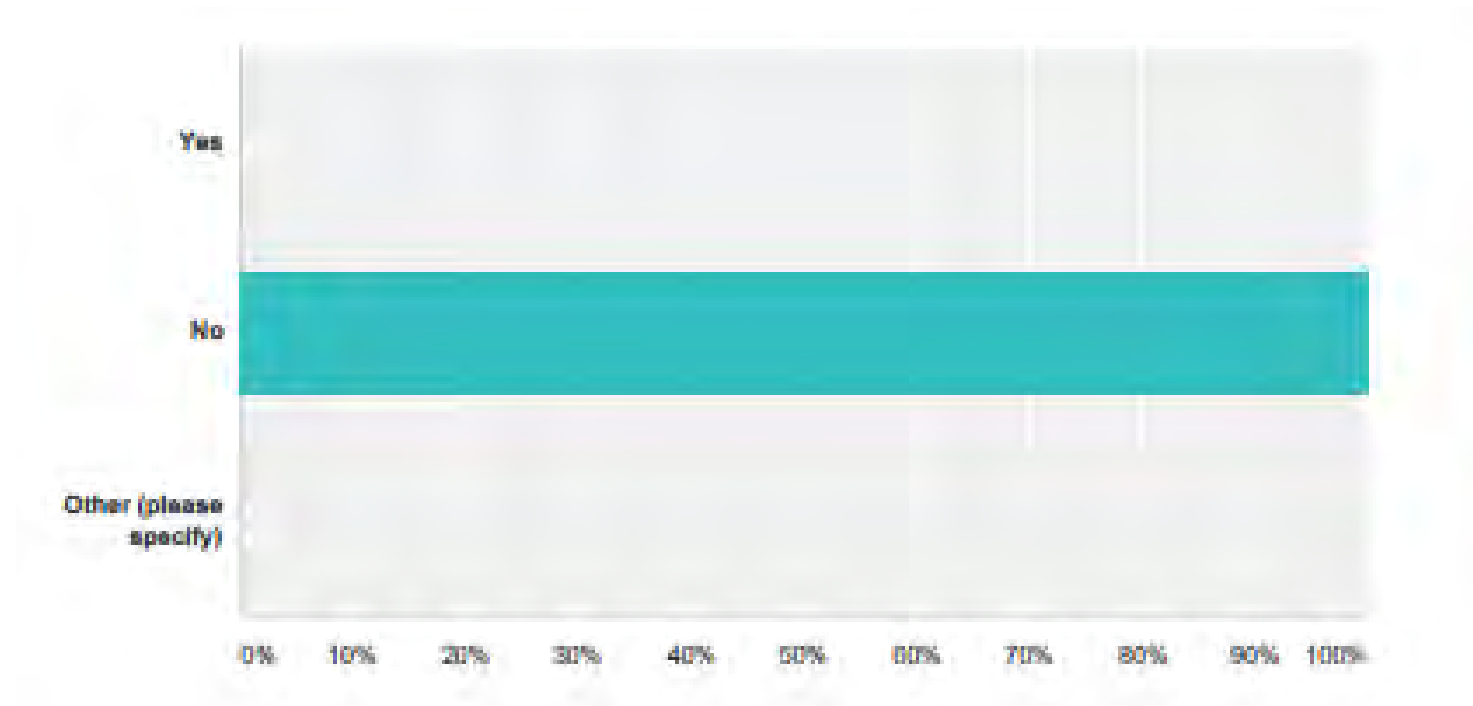


	Strongly Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Strongly Agree	Total	Weighted Average
Check one	9.09% 1	0.00% 0	9.09% 1	27.27% 3	54.55% 6	11	4.18

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Q10 Do you or anyone in your household have disabilities and / or access and functional needs that require early warning notification or specialized response to evacuate during disasters?

Answered: 11 Skipped: 0

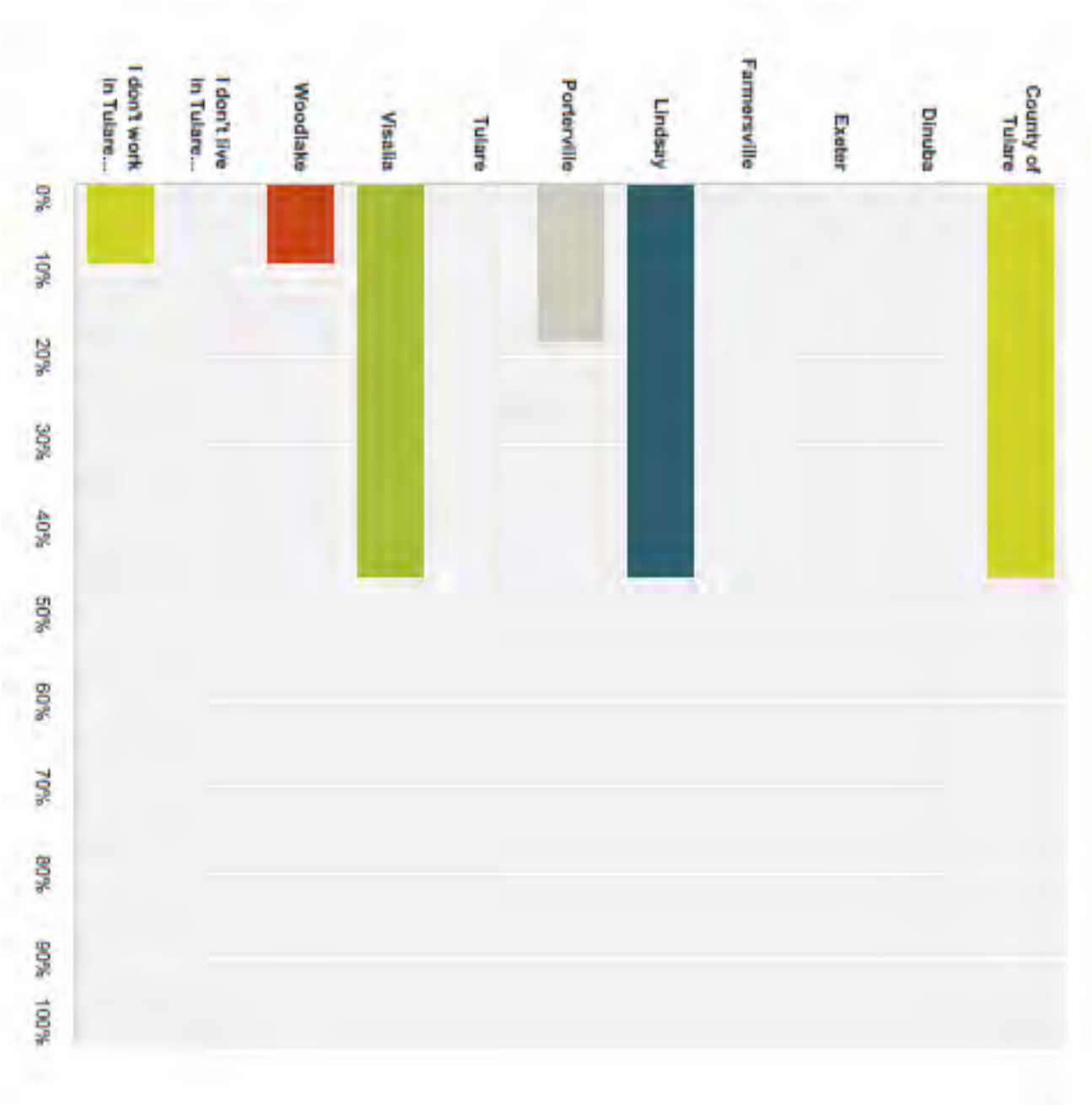


Answer Choices	Responses	
Yes	0.00%	0
No	100.00%	11
Other (please specify)	0.00%	0
Total		11

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Q11 Where do you live and/or work? Please check all that apply.

Answered: 11 Skipped: 0



2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Answer Choices	Responses	
County of Tulare	45.45%	5
Dinuba	0.00%	0
Exeter	0.00%	0
Farmersville	0.00%	0
Lindsay	45.45%	5
Porterville	18.18%	2
Tulare	0.00%	0
Visalia	45.45%	5
Woodlake	9.09%	1
I don't live in Tulare County.	0.00%	0
I don't work in Tulare County.	9.09%	1
Total Respondents: 11		

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Sample 4

County OES posted a publicly available MJLHMP survey on its website on March 15, 2017. Documentation is provided below. Results of the survey which are included in sample 3 of this Appendix were used to refine the CPRI and to select and prioritize mitigation measures.

From: Dave Lee
Subject: Follow Up: MJLHMP Planning Meeting #4: Public Outreach
Date: Wednesday, March 15, 2017 1:43:10 PM

Regards to All,

Thank you very much for participating in our fourth planning meeting for updating our County's Hazard Mitigation Plan.

As resolved, County OES is providing links to our public outreach survey: [Public Survey on County OES' page](#). Should you wish to embed this survey, please use this link: <https://www.surveymonkey.com/r/tularemjlhmp>.

Please provide these links to your Public Information Officers for their use, since it is critical that we engage the public in this planning process.

We will be judged on how we engage the public (e.g. Twitter, Facebook, web-presences, etc.), and how many public responses are returned, and how we utilize the feedback from the public (vis-à-vis our local priorities for hazard mitigation activities through STAPLEE analyses).

Please contact us with any questions. Thank you.

Sincerely,
Dave Lee

OES Specialist
Tulare County Office of Emergency
Services (OES) 5957 South Mooney
Boulevard
Visalia, California 93277
Hours: Monday-Thursday, 7:30 AM - 5:00 PM
(559) 624-7496 Office
(559) 553-1125 Facsimile
(559) 827-7600 Mobile
Register for AlertTC!

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2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation

Sample 5



2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation


Sample 6




2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public Outreach Documentation


Sample 7

Draft MJLHMP Feedback - Office of Emergency Services



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Draft MJLHMP Feedback

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2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix E Public
Outreach Documentation

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix F Mitigation Activity Prioritization

Appendix F Mitigation Activity Prioritization

The following worksheets on **Table F-1** were developed to support the planning team evaluate hazard mitigation options using the STAPLEE method. These worksheets follow the FEMA State and Local Mitigation Planning How-To Guide: Developing the Mitigation Plan – Identifying Mitigation Actions and Implementation Strategies published by FEMA in 2003.

Table F - 1 Mitigation Activity Prioritization																									
	S Social		T Technical			A Administrative			P Political			L Legal			E Economic			E Environmental							
Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	Priority Total	
1-1 Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	1	1	1	1	1	-1	-1	0	1	0	1	1	1	1	1	-1	1	0	0	0	0	1	1	12	
1-2 Integrate the Tulare County MJLHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	1	1	1	1	1	1	-1	0	1	1	1	1	1	0	1	1	1	1	NA	NA	NA	1	NA	15	

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1-3 Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	1	0	0	0	0	1	1	16
1-4 Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1	17
1-5 Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	15
1-6 Continue to seek grant funding for the rehabilitation of deteriorated and dilapidated structures and provide available information regarding housing programs and other public services including the identification of existing nonconforming building construction specific to building codes that apply in the Very High Fire Hazard Safety Zones.	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0	1	-1	0	0	0	1	1	15

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1-7 Continue to evaluate areas to determine levels of earthquake risk.	1	1	1	1	1	0	0	0	1	0	1	1	1	0	1	0	1	-1	0	0	0	1	1	12
1-8 Discourage construction and grading on slopes in excess of 30%	1	1	1	1	1	1	0	0	1	1	1	1	0	0	1	1	0	0	1	0	0	1	1	15
1-9 Request Federal and State financial assistance to implement corrective seismic safety measures required for existing County buildings and structures.	1	0	1	1	0	0	0	1	1	0	1	1	1	0	0	0	1	-1	0	0	0	1	1	10
1-10 Do not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resource code, Chapter 7.5) unless the specific provision of the Act and Title 14 of the California Code of Regulations have been satisfied.	1	1	1	1	0	0	0	0	1	0	1	1	1	0	0	0	1	0	0	0	0	1	1	11
1-11 Discourage the location of new schools in areas designated for agriculture, unless the School District agrees to the construction and maintenance of all necessary infrastructure impacted by the project.	1	1	1	1	1	0	-1	0	1	0	0	1	1	0	1	0	0	1	1	0	0	1	1	11

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1-12 Encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste, and solar or wind farms.	1	1	1	1	1	0	1	0	1	0	1	1	1	1	1	0	1	-1	1	0	0	1	1	15
1-13 Require buffer areas between development projects and significant watercourses, riparian vegetation, wetlands, and other sensitive habitats and natural communities. These buffers should be sufficient to assure the continued existence of the waterways and riparian habitat in their natural state.	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	0	0	0	1	1	0	1	1	16
1-14 Ensure that development in high or very high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	14
1-15 Identify and map existing housing structures that do not conform to contemporary fire standards. in Identify plans and actions to improve substandard housing structures and neighborhoods.	1	1	1	1	1	-1	0	0	1	1	0	1	1	0	1	0	0	0	0	0	0	1	1	11

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1-16 Identify plans and actions for existing residential structures and neighborhoods, and particularly substandard residential structures and neighborhoods, to be improved to meet current fire safe ordinances pertaining to access, water flow, signing, and vegetation clearing.	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	-1	0	0	0	0	0	1	1	13
1-17 Develop plans and action items for vegetation management that provides fire damage mitigation and protection of open space values.	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	-1	0	0	0	0	0	1	1	13
1-18 Develop burn area recovery plans that incorporate strategic fire safe measures developed during the fire suppression, such as access roads, fire lines, safety zones, and fuelbreaks, and helispots.	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	-1	0	0	0	0	0	1	1	14
1-19 Incorporate native species habitat needs as part of long term fire protection and fire restoration plans.	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	0	0	0	1	1	0	1	1	15

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1-20 Establish fire defense strategies (such as fire ignition resistant areas) that provide adequate fire protection without dependency on fire resources (both air and ground) and could serve as safety zones for the public or emergency support personnel.	1	1	1	0	1	0	0	0	1	1	1	1	1	1	1	-1	0	0	0	0	0	1	1	12
1-21 Develop dead tree removal projects that are actionable based on available resources, rules, regulatory approvals and available funding.	1	1	1	0	1	0	1	0	1	1	1	1	1	NK	1	0	1	0	1	0	0	0	1	14
1-22 Create a database that accounts for all levees in Tulare County and their condition.	1	1	1	1	0	-1	-1	0	1	1	1	1	1	1	1	1	0	NK	0	0	0	1	1	12
1-23 Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	-1	1	1	1	-1	-1	-1	0	-1	-1	-1	1	1	-1	1	-1	1	NK	1	1	0	1	1	3
1-24 Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	1	1	1	1	1	-1	-1	0	1	1	1	1	1	-1	1	-1	1	-1	1	1	1	1	1	12

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1-25 Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	1	16
1-26 Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	1	1	1	0	0	1	1	1	1	0	1	1	1	0	1	1	1	0	1	0	0	1	1	16
1-27 Increase participation in the NFIP by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	1	1	1	1	1	-1	-1	-1	1	0	1	1	1	0	1	-1	1	0	0	0	0	1	1	9
1-28 Provide flood protection for the County's Juvenile Detention Facility and Records Storage Facility located north of Avenue 368.	1	1	1	1	1	0	-1	1	1	1	UK	1	1	1	1	UK	0	0	0	0	0	1	1	13

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1- 29 Construct a new 24-inch culvert pipe with a canal gate from Sontag Ditch on the south side of SR 201 to daylight into the Stone Corral Ditch on the east side of Sontag Ditch. The purpose of this project is intended to direct high flows from Sontag Ditch to the Stone Corral Ditch during heavy rain events. The diverted water will flow into Stone Corral Irrigation District's detention basin located approximately two miles to the south, just north of Cottonwood Creek, therefore, alleviating flooding in the Seville area.	1	1	1	1	1	0	-1	1	1	1	UK	1	1	1	1	UK	0	0	0	0	0	1	1	13
1-30 Complete the Yettem Button ditch project by obtaining flood easement rights north of the community of Yettem adjacent to the Button Ditch. This will provide comparable flood protection with the added benefit of groundwater recharge.	1	1	1	1	1	1	1	-1	1	-1	1	1	1	1	1	-1	1	0	1	0	0	1	1	14
1-31 Contract and proceed with preparation of the Flood Control Master Plan Update for the Fresno-Tulare Unit.	1	1	1	1	1	-1	-1	0	1	0	1	1	1	0	1	-1	1	0	0	0	0	1	1	10
1-32 Conduct annual retention basin maintenance that includes weed abatement, fence repair, and drainage inlet flushing.	1	1	1	1	1	1	1	-1	1	-1	1	1	1	1	1	-1	1	0	1	0	0	1	1	14

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1-33 Inspect and cycle County flood control pumps annually to ensure functionality. Clear shrubs and debris in proximity to the basins and channels of the pumps to minimize potential blockage during operation. If required, contract with local pump repair contractors to service the equipment.	1	1	1	0	0	0	1	1	1	0	1	1	1	0	1	1	1	1	0	0	0	1	1	15
1-34 Regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following: 1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted. 2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible. 3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.	1	1	1	1	1	0	0	0	1	1	UK	1	1	UK	1	0	0	0	1	0	0	1	1	13

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1-35 Continue to participate in the NFIP.	1	1	1	1	1	0	1	0	1	1	1	1	1	UK	1	-1	1	0	0	0	0	1	1	14
1-36 Review projects for their exposure to inundation due to dam failure. If a project presents a direct threat to human life, appropriate mitigation measures shall be taken, including restriction of development in the subject area.	1	1	1	1	0	1	0	0	UK	1	UK	1	1	UK	1	0	0	0	0	0	0	1	1	11
1-37 Ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Recommendations required to satisfy Federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project.	1	1	1	1	1	0	0	0	1	1	1	1	1	UK	1	-1	0	0	1	0	1	1	1	14
1-38 Continue to cooperate with the California Highway Patrol to establish procedures for the movement of hazardous wastes and explosives within the County.	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	19

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1-39 Implement post-fire debris flow hill-slope and channel treatments, such as seeding, mulching, check dams, and debris racks, as needed.	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	0	0	0	1	0	0	1	1	15
1-40 Manage vegetation in areas within and adjacent to rights of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.	1	1	1	1	1	0	0	1	1	1	UK	1	1	0	1	-1	1	0	0	0	0	1	1	12
1-41 Develop a free annual tree chipping and tree pick-up day that encourages residents living in wind hazard areas to manage trees and shrubs at risk of falling on nearby structures.	1	1	1	0	0	0	0	0	1	1	1	1	1	0	1	-1	1	0	0	0	0	1	1	11
1-42 Bolt down the roofs of critical facilities in wind gust hazard areas in order to prevent wind damage.	1	1	1	1	1	0	0	1	1	1	UK	1	1	0	1	-1	1	0	0	0	0	1	1	12

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1-43 Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	1	19
1-44 Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-45 Design and construct a permanent solution to flooding east of Friant Kern Canal in Strathmore	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-46 Design and construct a permanent solution to protect M137(Reservation Road) from flooding	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15

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1-47 Restore Cottonwood creek back to natural flow path, protect Road 108 and provide additional impoundment.	1	1	1	1	1	0	-1	1	1	1	1	1	1	-1	1	0	1	1	1	0	0	1	1	15
1-48 Conduct a hydrological survey/study to investigate potential flooding issues due to ground subsidence caused by use of groundwater without replenishment. Create a data base for future land planning use.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	16
1-49 Identify and implement strategies that result in promoting stormwater management through groundwater recharge projects.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	16
1-50 Develop a program to identify, prioritize, fund and develop designs to replace functionally obsolete bridges.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-51 Develop a program to identify, prioritize, fund and develop designs to replace structurally obsolete bridges.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-52 Design and construct a bridge structure on Road 184 (btw A24-A32) on the White River.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15

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1-53 Design and construct a bridge structure on R156 (btw A32-A40) on White River.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-54 Design and construct a bridge structure on R88 (btw A56-A84) on Deer Creek.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-55 Identify, prioritize, fund and develop permanent solutions for low water crossings throughout the County.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-56 Engage the entire community and develop a County-wide drought response plan to respond to period of prolonged dry weather.	1	1	1	1	1	0	-1	0	1	1	1	1	1	0	1	0	1	1	1	1	0	1	1	16
1-57 Identify potential problem areas, and develop and implement a plan to address potential groundwater contamination issues in small water systems.	1	1	1	1	1	0	-1	0	1	1	1	1	1	0	1	0	1	1	1	1	0	1	1	16
1-58 Develop transportation plans and projects that support providing adequate vehicular access to the southwest corner of the County after High Speed Rail is constructed.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15

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1-59 Develop and implement a program to address potential channel capacity loss, potential flooding issues, and bridge clearance issues resulting from subsidence on the Friant Kern Canal	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	16
1-60 Seismically retrofit or replace County and local ramps and bridges that are categorized as structurally deficient by Caltrans, are located in high ground shaking areas, and/or are necessary for first responders to use during and/or immediate after a disaster or emergency.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-61 Identify at risk structures and reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15

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Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	Priority Total
1- 62 Manage vegetation in areas within and adjacent to rights-of-way and in close proximity to critical facilities in order to reduce the risk of tree failure and property damage and avoid creation of wind acceleration corridors within vegetated areas.	1	1	1	1	1	0	-1	1	0	1	1	1	1	-1	1	0	1	1	0	0	0	1	1	13
1-63 Implement a fuel reduction program, such as the collection and disposal of dead fuel, within open spaces and around critical facilities and residential structures located within a high and very high wildfire zones.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1- 64 Develop a Debris Management Plan.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-65 Develop a County-wide Storm Water Resources Plan.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
1-66 Develop and implement programs and policies to protect and enhance surface water and groundwater resources critical to human consumption.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix F Mitigation Activity Prioritization

1-67 Develop groundwater recharge projects to promote groundwater sustainability, and mitigate and recover from the effects of prolonged drought.	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	1	0	1	1	0	0	0	1	1	15
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2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix F Mitigation Activity Prioritization

	S Social		T Technical			A Administrative			P Political			L Legal			E Economic				E Environmental					
Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	Priority Total
2-1 Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	1	1	19
2-2 Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	-1	1	0	0	0	0	1	1	14
2-3 Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	0	1	1	1	18
2-4 Develop and implement a County-wide program to promote water use understanding and water conservation.	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	0	1	1	1	19

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	S Social		T Technical			A Administrative			P Political			L Legal			E Economic				E Environmental					
Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	Priority Total
3-1 Conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.	1	1	1	1	1	1	1	0	1	1	1	1	1	-1	1	0	0	0	0	0	1	1	1	16
3-2 Maintain agriculture as the primary land use in the valley region of the County, not only in recognition of the economic importance of agriculture, but also in terms of agriculture’s real contribution to the conservation of open space and natural resources.	1	1	1	1	1	1	1	0	1	1	1	1	1	UK	1	0	0	0	1	0	0	1	1	16

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix F Mitigation Activity Prioritization

Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	Priority Total
3-3 Consider developing an Agricultural Conservation Easement Program to help protect and preserve agricultural lands (including Important Farmlands), as defined in the General Plan Safety Element. This program may require payment of an in-lieu fee sufficient to purchase a farmland conservation easement, farmland deed restriction, or other farmland conservation mechanism as a condition of approval for conservation of important agricultural land to non-agricultural use.	1	1	1	1	1	1	1	0	1	1	1	1	1	UK	1	-1	0	0	1	0	0	1	1	15
3-4 Seek to protect and enhance surface water and groundwater resources critical to agriculture.	1	1	1	1	1	1	1	0	1	1	1	1	1	UK	1	0	0	0	1	0	0	1	1	16
3-5 Identify opportunities for infill development projects near employment areas within all unincorporated communities to reduce vehicle trips.	1	1	1	1	1	1	0	0	1	0	1	1	1	UK	1	0	0	0	1	0	0	1	1	14
3-6 Encourage high-density residential development (greater than 16.1 dwelling units per gross acre) to locate along collector roadways and transit routes,	1	1	1	1	1	1	0	0	1	0	1	1	1	UK	1	0	0	0	1	0	0	1	1	14

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix F Mitigation Activity Prioritization

and near public facilities (e.g., schools, parks), shopping, recreation, and entertainment.																								
Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	
3.7 Review Leadership in Energy and Environmental Design (LEED) and LEED-neighborhood development certification requirements and develop an implementation program.	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	0	1	1	17
3.8 Encourage the location of ancillary employee services (including, but not limited to, child care, restaurants, banking facilities, convenience markets) near major employment centers for the purpose of reducing midday vehicle trips.	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	0	1	1	17
3.9 Encourage new streets to be designed and constructed to not only accommodate traffic, but also serve as comfortable pedestrian and cyclist environments.	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	0	1	1	17
3.10 Work with school districts and land developers to locate school sites consistent with current and future land uses. The County shall also encourage siting new schools near the residential areas that they serve and with access to safe pedestrian paths to schools.	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	0	1	1	17

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3.11 Work to comprehensively study methods of transportation, which may contribute to a reduction in air pollution in Tulare County.	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	0	0	1	1	17
Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws		
3-12 Encourage all new development, including rehabilitation, renovation, and redevelopment, to incorporate energy conservation and green building practices to maximum extent feasible. Such practices include building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	0	1	0	0	0	1	1	17

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix F Mitigation Activity Prioritization

	S Social		T Technical			A Administrative			P Political			L Legal		E Economic			E Environmental							
Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	Priority Total
4.1 Coordinate with cities to develop cohesive fire safety plans with overlapping coverage.	1	1	1	1	1	1	0	1	1	1	1	0	1	0	1	0	0	0	0	0	0	1	1	14
4.2 Work with local and Federal agencies to support efforts to reduce fuel related hazards on public lands.	1	1	1	1	1	1	1	0	1	1	1	1	1	-1	1	0	0	0	0	0	0	1	1	14
4.3 Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	17

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Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	Priority Total
4.4 Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	17
4.5 Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	16
4-6 Increase participation in the National Flood Insurance Program (NFIP) by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	16

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	S Social		T Technical			A Administrative			P Political			L Legal			E Economic				E Environmental					
Mitigation Action	Community Acceptance	Effect on Segment of Population	Technical Feasibility	Long-Term Solution	Secondary Impacts	Staffing	Funding Allocated	Maintenance/Operations	Political Support	Local Champion	Public Support	State Authority	Existing Local Authority	Potential Legal Challenges	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required	Effect on Land / Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Environmental Laws	Priority Total
5.1 Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	-1	0	0	0	0	0	1	1	14
5.2 Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.	1	1	1	1	1	0	-1	1	0	0	1	1	1	NK	1	-1	0	0	0	0	0	1	1	11
5.3 In approving new facilities, such as nursing homes, housing for the elderly and other housing for the mentally and physically infirm, to the extent possible, ensure that such facilities are located within reasonable distance of fire and law enforcement stations	1	1	1	1	1	0	0	0	1	0	1	0	1	NK	1	0	0	0	0	0	0	1	1	11
5.4 Expand the Street Names and House Numbering Ordinance to all areas of the County, including private roads, for emergency 911 purposes.	1	1	1	1	1	0	0	1	1	1	0	1	0	NK	1	0	0	0	0	0	0	1	1	12

Appendix G County Department of Transportation Bridges and Culverts

See map under separate cover

Appendix H: Safety Element, Climate Action Plan and MJLHMP Integration

This appendix provides a summary of the relationship between the Public Safety Element of the General Plan and the LHMP. It also summarizes the relevant Federal and State legislation governing the adoption, update, and integration of the LHMP and Public Safety Element. Finally, the appendix demonstrates the components of each plan that have been included to comply with the relevant legislation.

Background

Tulare County General Plan Health and Safety Element

California Planning and Zoning Law requires that a city or county general plan contain specified elements, including a safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides, subsidence, liquefaction, and other seismic, geologic, and fire hazards.

In the County, the requirements of the safety element are contained within the Safety Element of the General Plan – the County’s integrated General Plan and Land Use Plan. The Safety Element establishes goals, policies, and actions that protect communities from risk associated with natural hazards. The element places specific focus on hazards that could be made more severe with anticipated impacts of climate change.

Local Hazard Mitigation Plan

The MJLHMP is a five-year strategic plan that also seeks to identify and mitigate natural hazards. The MJLHMP is related but distinct from the Safety Element, directly responding to the requirements of the Federal Disaster Mitigation Act (DMA) of 2000. The DMA establishes requirements to identify hazards, evaluate mitigations, and prioritize strategies to mitigate hazard risks. To maintain eligibility for FEMA funding, the County must update the MJLHMP every five years at a minimum.

In Tulare County, the MJLHMP was first developed in 2005, with an update occurring in 2011. Another update to the MHLHMP is also underway, with adoption anticipated in 2017. Consistent with FEMA’s Local Mitigation Planning Guidance, the MJLHMP under development includes evaluations of risk, vulnerability, capability, and mitigation strategies as well as a summary of the planning process and plan maintenance procedures.

Relevant Legislation

The Disaster Mitigation Act of 2000 (DMA 2000)

The Disaster Mitigation Act of 2000, also commonly known as “The 2000 Stafford Act Amendments”, constitutes an effort by the Federal government to reduce the rising cost of disasters by stressing the importance of mitigation planning and disaster preparedness prior to an event.

Mitigation Planning Section 322 of the Act requires local governments to develop, submit, and update hazard mitigation plans every five years in order to qualify for Hazard Mitigation Assistance (HMA) grant program funds. The County and associated jurisdictions including the Tule River Tribe must have an approved hazard mitigation plan pursuant to §201.6 in order to receive FEMA Pre-Disaster Mitigation (PDM) project grants or to receive HMA funding.

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The California Disaster Assistance Act of 2006 (AB 2140)

In October 2006, the California State Legislature passed AB 2140 – the California Disaster Assistance Act - which went into effect January 1, 2007. AB 2140 limits the state’s share of funding for disaster recovery projects to 75% of the recovery costs unless a local jurisdiction has complied with the legislation by incorporating a local hazard mitigation plan as part of the safety element of the general plan, at which point up to 100% of the recovery costs may be covered by the State.

By incorporating the MJLHMP by reference into the Safety Element of the General Plan, the County will be considered eligible for the increased State share of public assistance reimbursement for disaster recovery projects.

Climate Adaptation and Resiliency Strategies (SB 379)

Senate Bill 379, signed into law in October 2015, requires all California cities and counties to include climate adaptation and resiliency strategies in the safety elements of the general plan, upon the next revision on or after January 1, 2017. Specifically, the bill requires that upon the next revision of a general plan or local hazard mitigation plan, the safety element be updated to address climate adaptation and resiliency strategies applicable to the city or county. This review and update is to include all of the following:

- A. A vulnerability assessment that identifies the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts.
- B. A set of adaptation and resilience goals, policies, and objectives based on the information specified in the climate vulnerability assessment for the protection of the community.
- C. A set of feasible implementation measures designed to carry out the goals, policies, and objectives identified pursuant to the adaptation objectives, including but not limited to the following:
 - i. Feasible methods to avoid or minimize climate change impacts associated with new uses of land.
 - ii. The location, when feasible, of new essential public facilities outside of at-risk areas, including, but not limited to, hospitals and health care facilities, emergency shelters, emergency command centers, and emergency communications facilities, or identifying construction methods or other methods to minimize damage if these facilities are located in at-risk areas.
 - iii. The designation of adequate and feasible infrastructure located in an at-risk area.
 - iv. Guidelines for working cooperatively with relevant local, regional, state, and federal agencies.
 - v. The identification of natural infrastructure that may be used in adaptation projects, where feasible. This may include, but is not limited to, floodplain and wetlands restoration or preservation, combining levees with restored natural systems to reduce flood risk, and urban tree planting to mitigate high heat days.

Compliance + Coordination

Incorporation of LHMP into Public Safety Element (AB 2140 compliance)

The adoption of the MJLHMP by reference into the Safety Element of the General Plan, allows the County to be eligible for additional disaster recovery funding from the State of California. The MJLHMP has been incorporated into the General Plan document, implementation plans, background studies, and is referenced in the Planning Commission Resolution as follows:

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The County adopts the 2017 County of Tulare Multi-Jurisdictional Hazard Mitigation Plan as the Health and Safety Element of the general plan in accordance with the County Board of Supervisors resolution 2016-0896 on November 15, 2016. Specific sections of the MJLHMP that meet the general plan safety element are contained in **Table H-1**.

Table H-1: General Plan Safety Element Crosswalk		
General Plan Safety Element	MJLHMP Section	Pages
General 10.1	Throughout	
Specific Hazards 10.2-10.6	5.3	17-46
Emergency Response 10.7		
Noise 10.8		
Healthy Communities 10.9	Throughout	
Work Plan/ Implementation Measures	6.3-6.4	57

Additionally, the Safety Element includes the following language:

Section 10.7 Emergency Response

HS-7.8 Tulare County Multi-Jurisdiction Hazard Mitigation Plan

The County incorporates the adopted Tulare County Multi-Jurisdiction Hazard Mitigation Plan into the Tulare County General Plan Health and Safety Element. The plan provides guidance and insight into the hazards that exist in Tulare County and suggests possible mitigation projects. The plan should be consulted when addressing known hazards to ensure the general health and safety of Tulare County residents.

Within the Safety Element, there are additional item that may be taken as mitigation measures. They include:

- **HS-6.16 Consideration of Diverse Occupancies and their effects on Wildfire Protection**
The County shall strive to ensure risks to uniquely occupied structures, such as seasonally occupied homes, multiple dwelling structures, or other structures with unique occupancy characteristics, are considered for appropriate and unique wildfire protection needs.
- **HS-6.17 Integration of Open Space into Fire Safety Effectiveness**
The County shall strive to address the facilitation of safe fire suppression tactics, standards for adequate access for firefighting, fire mitigation planning with agencies/private landowners managing open space adjacent to the County jurisdictional area, water sources for fire suppression, and other fire prevention and suppression needs.
- **HS-6.18 Mitigation for unique pest, disease and other forest health issues leading to hazardous situations**
The County shall strive to address unique pest, disease, exotic species and other forest health issues in open space areas for purposes of reducing fire hazard and supporting ecological integrity.

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- **HS-6.20 Fire Suppression Defense Zones**

The County shall support the creation of wildfire defense zones for emergency services, including fuel breaks or other staging areas where WUI firefighting tactics could be most effectively deployed as appropriate consistent with the strategies identified in the Multi-Jurisdictional Local Hazard Mitigation Plan.

- **HS-6.21 Redevelopment of Structures in High and Very Hazardous Areas**

In High and Very hazardous areas, the County shall strive to ensure that the redevelopment of structures utilize state of the art fire resistant building and development standards to improve past 'substandard' fire safe conditions as feasible and appropriate according to applicable codes.

- **HS-6.22 Long Term Maintenance of Fire Hazard Reduction Mitigation Projects**

Consistent with the Multi-Jurisdictional Local Hazard Mitigation Plan, the County shall support maintenance of the post-fire-recovery projects, activities, or infrastructure as feasible and appropriate.

- **HS-6.23 Reassessment of Fire Hazards Following Wildfire Events**

The County shall strive as reasonable and appropriate to adjust fire prevention and suppression needs for both short and long-term fire protection in the reassessment of fire hazards following wildfire events.

- **HS-6.24 Consideration of Wildlife Habitat/Endangered Species in Developing Long Term Fire Area Recovery and Protection Plans**

The County shall consider wildlife habitat/endangered species in developing long term fire area recovery and protection plans, including environmental protection agreements such as natural community conservation plans.

- **HS-6.25 Emergency Response Barriers**

The County shall support the identification of vital access routes that if removed would prevent fire fighter access (bridges, dams, etc.) as included in the Multi-Jurisdictional Local Hazard Mitigation Plan to address emergency access planning for these areas.

The full contents of the General Plan Health and Safety Element are found at: <http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/000General%20Plan%202030%20Part%20I%20and%20Part%20II/General%20Plan%202012.pdf>

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Climate Change Vulnerability Assessment (SB 379 compliance)

Pursuant to Senate Bill 379 and California Government Code Section 65302(g)(4), the Safety Element has been developed to address climate adaptation and resiliency strategies applicable to the County and is consistent with the Governor's Office of Planning and Research advice to:

- Conduct a vulnerability assessment identifying climate change risks
- Include a set of adaptation and resilience goals, policies, and objectives based on the identified climate change vulnerabilities
- Identify a set of feasible implementation measures designed to carry out the goals, policies, and objectives
- Incorporate a reference to the MJLHMP that fulfills goals and objectives, and contains information related to climate change vulnerability and adaptation policies

In the preparation of the MJLHMP, the County utilized the Cal Adapt Tool and California Adaptation Planning Guide to identify climate change risks and determined that fire and extreme heat are among the primary risks to the County that will increase in severity due to climate change. The findings in these studies were summarized in the Climate Action Plan, and a set of goals, policies, and implementation actions to address climate change have been identified. The full contents of the Climate Action Plan are available at:

<http://generalplan.co.tulare.ca.us/documents/GP/002Board%20of%20Supervisors%20Materials/001BOS%20Agenda%20Items%20-%20Public%20Hearing%20August,%2028%202012/004Attachment%20C.%20CAP/001Exhibit%201.%20Climate%20Action%20Plan/23190016%20Tulare%20CAP%2008-13-2012.pdf>

Many of the implementation actions have been included in the MJLHMP as mitigation measures:

Water Supply (CAP Pg. 31)

- WR-1.5 Expand Use of Reclaimed Wastewater
- WR-1.6 Expand Use of Reclaimed Water
- WR-3.5 Use of Native and Drought Tolerant Landscaping
- ERM-1.7 Planting of Native Vegetation

Flooding (CAP Pg. 31)

FGMP-8.3 Development in the Floodplain

- HS-1.4 Building and Codes
- HS-1.5 Hazard Awareness and Public Education
- HS-1.11 Site Investigations
- HS-5.1 Development Compliance with Federal, State, and Local Regulations
- HS-5.2 Development in Floodplain Zones
- HS-5.3 Participation in Federal Flood Insurance Program
- HS-5.4 Multi-Purpose Flood Control Measures
- HS-5.5 Development in Dam and Seiche Inundation Zones
- HS-5.6 Impacts to Downstream Properties
- HS-5.7 Mapping of Flood Hazard Areas
- HS-5.8 Road Location
- HS-5.9 Floodplain Development Restrictions

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- HS-5.10 Flood Control Design
- HS-5.11 Natural Design
- PFS-4.1 Stormwater Management Plans
- PFS-4.3 Development Requirements
- PFS-4.6 Agency Coordination

Agriculture and Forest (CAP Pg. 32)

- AQ-3.2 Infill near Employment
- LU-1.4 Compact Development
- LU-1.8 Encourage Infill Development
- LU-3.3 High Density Residential Locations
- LU-2.1 Agricultural Lands
- AG-1.8 Agriculture within Urban Boundaries
- ERM-5.15 Open Space Preservation
- LU IM 3 Encourage Smart Growth Incentives

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix I Acronyms and Glossary

Appendix I: Acronyms and Glossary

AB 2140	Assembly Bill 2140 The California Disaster Assistance Act
AFG	Assistance to fire fighters grant
APG	California Adaptation Planning Guide
ARB	Air Resources Board
BNICE	Biological, nuclear, incendiary, chemical and explosive
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
CARE	Community action for a renewed environment
CBRNE	Chemical, biological, radiological, nuclear and explosive
CBSC	California Building Standards Code
CDAA	California Disaster Assistance Act
CDC	Center for Disease Control
CFR	Code of Federal Regulations
CO2	Carbon dioxide
CPRI	Calculated Priority Risk Index
CUPA	California Unified Program Agency
CWPP	Community wildfire protection plan
CWSRF	Clean water state revolving fund
DFIRM	Digital Flood Insurance Rate Map
Dinuba	City of Dinuba
DMA 2000	The Federal Disaster Mitigation Act
DOC	Department operations center
DSOD	California Division of Safety of Dams
DUA	Disaster Unemployment Assistance
DWR	California Department of Water Resources
EMO	Emergency management organization
EOC	Emergency operations center
EOP	Emergency operations plan
EPA	U.S. Environmental Protection Agency
Exeter	City of Exeter
Farmersville	City of Farmersville
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
FMA	Flood Mitigation Assistance
FMAGP	Fire Management Assistance Grant Program
General Plan	Tulare County General Plan 2030 Update
GIS	Geographic information system
GO	General obligation

2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Appendix I Acronyms and Glossary

HMGP	Hazard Mitigation Grant Program
ITCZ	Intertropical convergence zone
LEED	Leadership in Energy and Environmental Design
Lindsay	City of Lindsay
Los Tules	The tules (a type of bush native to California)
M	Magnitude
MJLHMP	2017 Multi-Jurisdictional Local Hazard Mitigation Plan
MMI	Modified Mercalli Intensity
Mph	Miles per hour
NFIP	National Flood Insurance Program
NFIRA	National Flood Insurance Reform Act
NOAA	National Oceanic Atmospheric Administration
NWS	National Weather Service
OA	Operational area
PA	Public assistance
PDM	Pre-Disaster Mitigation
PGA	Peak ground acceleration
Porterville	City of Porterville
RFC	Repetitive flood claims
RMA	Resource management agency
RL	Repetitive loss
SRL	Severe repetitive loss
Stafford Act	The Robert T. Stafford Disaster Relief and Emergency Assistance Act
STAPLEE	Social, technical, administrative, political, legal, economic and environmental
SR	State route
SWQMP	Stormwater Quality Management Program
TCOE	Tulare County Office of Education
The County	Tulare County
Tulare	City of Tulare
USACE	U.S. Army Corps of Engineers
USFA	U.S. Fire Administration
USGS	U.S. Geological Survey
VBD	Vector-borne diseases
Visalia	City of Visalia
WMD	Weapons of mass destruction
Woodlake	City of Woodlake

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**Appendix J: City, Tule River Indian Tribe and Tulare County Office of
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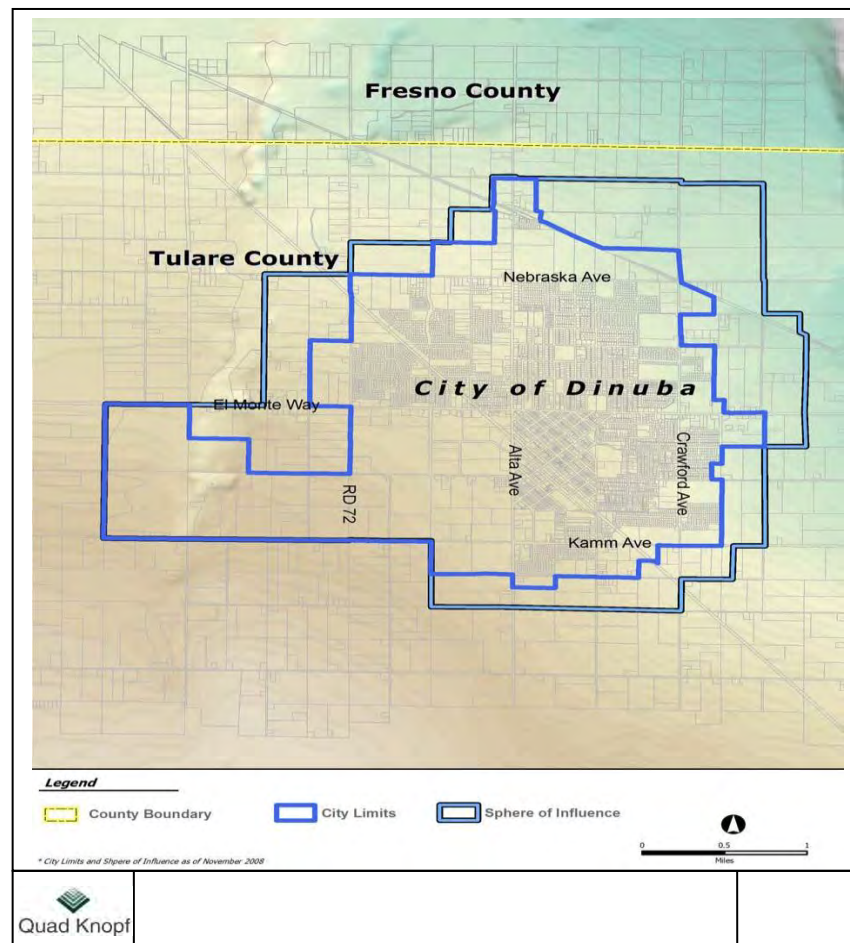
Annex A City of Dinuba

The City of Dinuba is in the northwestern corner of the County, approximately 20 miles north of Visalia. The City provides the following services:

- Public safety (police, fire protection, and ambulance service)
- Domestic water
- Sanitary sewer treatment and disposal
- Transportation
- Parks and recreation
- Vocational training

The City contracts with a private carrier to provide pickup of solid waste within the City limits. **Figure A-1** provides a map of Dinuba and its associated sphere of influence.

Figure A-1: Dinuba Map



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A.1 COMMUNITY PROFILE

Geography and Climate: The City has an area of 6.47 square miles. The City is relatively flat with an elevation of approximately 330 feet above sea level. Dinuba's climate can be described as dry Mediterranean. The summers are hot and dry, and winters are characterized by moderate temperatures and light precipitation. Temperatures and rainfall for Dinuba are typical of that of the rest of the valley floor portion of the County.

Government: The City was founded in 1888, incorporated in 1906, and became a charter city on July 7, 1994. Dinuba operates as a council-manager form of municipal government which is comprised of five members serving four-year overlapping terms.

Population and demographics: The City had an estimated 2016 population of 24,657, representing 26% growth since 2007. The 2010 U.S. Census reported that Dinuba had a population of 21,453. The population density was 3,315.7 people per square mile (1,280.2/km²). The racial makeup of Dinuba was 11,166 (52.0%) White; 141 (0.7%) African American; 193 (0.9%) Native American; 454 (2.1%) Asian; 17 (0.1%) Pacific Islander; 8,630 (40.2%) from other races; and 852 (4.0%) from two or more races. Hispanic or Latino of any race were 18,114 persons (84.4%). The Census reported that 21,291 people (99.2% of the population) lived in households, 77 people (0.4%) lived in non-institutionalized group quarters, and 85 people (0.4%) were institutionalized.

There were 5,593 households, out of which 3,275 (58.6%) had children under the age of 18 living in them; 3,162 (56.5%) were opposite-sex married couples living together; 1,077 (19.3%) had a female householder with no husband present; and 481 (8.6%) had a male householder with no wife present. There were 544 (9.7%) unmarried opposite-sex partnerships, and 37 (0.7%) same-sex married couples or partnerships. 672 households (12.0%) were made up of individuals and 324 (5.8%) had someone living alone who was 65 years of age or older. The average household size was 3.81. There were 4,720 families (84.4% of all households); the average family size was 4.04.

Housing: There were 5,868 housing units at an average density of 906.9 per square mile (350.2/km²), of which 3,176 (56.8%) were owner-occupied and 2,417 (43.2%) were occupied by renters. The homeowner vacancy rate was 2.3%; the rental vacancy rate was 4.2%. 11,975 people (55.8% of the population) lived in owner-occupied housing units and 9,316 people (43.4%) lived in rental housing units.

Economy: The economy of Dinuba is largely based on agriculture and food production. A variety of crops are cultivated including cotton, nuts, vegetables and fruits, including grapes (table grapes and wine), raisins, plums, peaches and citrus. Raisins are a major product in the Dinuba area, where 40 percent of the world's raisins are grown and dried, totaling approximately 300,000 tons annually. The largest employer is Ruiz Foods which is America's leading frozen Mexican food manufacturer. The City is also home to Best Buy Distribution, Patterson Logistics, Wal-Mart and Ed Dena's GM Auto Center. The Best Buy Regional Distribution Center consists of 1,024,000 square feet and services retail stores in California, Nevada and Arizona.

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Major employers in the City (2012 data) are:

1. Ruiz Foods Products, Inc. Frozen Food	1,540 (employees)
2. Dinuba Public Schools Education	639
3. Family Tree Farms Produce Packing	500
4. Walmart Retail	400
5. Best Buy Stores, Inc. Distribution Center	330
6. Odwalla, Inc. Fruit Juices	210
7. City of Dinuba Local Government	151
8. Surabian and Sons Produce/Packing	125
9. Kmart Retail	98

Land use: Major industries in Dinuba are concentrated in warehousing and distribution, food processing and agriculture production. Key economic growth opportunities identified in the General Plan include a combination of large scale and small scale industrial developments. Large scale, heavy industry development could occur in agricultural chemicals and fertilizers, and in some of the food processing and packaging material production industries, subject to industrial pretreatment. Wholesale and distribution centers may also be a large-scale development opportunity. Other growing business sectors represent smaller scale light industrial opportunities. **Figure A-2** provides detail on zoning and land use for Dinuba.

Development trends: Historical population data and future projections have been obtained from the U.S. Census Bureau, and the California Department of Finance. For analysis purposes, this data is compared to other source data relating to growth and population including the City's General Plan population projections. Historical census data indicates that the City of Dinuba had a population of 12,743 in 1990, 16,844 in 2000, and 21,453 in 2010. This equates to an average annual growth rate of approximately 2.64% between 1990 and 2010. **Table A-1** provides historic and projected population growth.

Table A-1: Dinuba Historic and Projected Population Growth			
Year	Tulare County	Dinuba	% of Total County Population
1990	311,921	12,743	4.1%
2000	368,021	16,844	4.6%
2010	442,179	21,453	4.9%
2020	526,471	27,893	5.3%
2030	626,833	36,266	5.8%
2040	746,326	47,153	6.3%

Notes: 1) 1990 to 2010 population data based on U.S. Census Data
2) 2020 to 2040 population projection based in 1990 to 2010 average annual growth rates

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The City plans for future growth through the implementation of policies and standards set forth in its General Plan. The General Plan is a long-term, comprehensive framework to guide physical, social and economic development within the community’s planning area. Dinuba’s General Plan is a long-range guide for attaining the City’s goals within its ultimate service area and accommodating its population growth to the year 2026. The City adopted a 10-year urban development boundary (UDB) as part of its General Plan Update, based upon the capabilities of the City to accommodate new growth. The adoption of tiered UDB’s also promotes orderly development by discouraging “leap frog” development.

Development in hazard prone areas:

Because population growth was less than one percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the City. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire County. Development in the City and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

A.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: Dinuba faces many of the hazards that are present in the County. **Table A-2** below provides a summary of hazards. There are no hazards that are unique to Dinuba. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include wildfire, earthquake liquefaction - subsidence, civil unrest and terrorism/cyber terrorism.

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Table A-2: Dinuba Summary of Hazards					
Hazard	Frequency	Extent	Magnitude	Significance	Potential Locations
Climate Change	Highly likely	Extensive	Catastrophic	High	Entire City
Dam Failure	Unlikely	Limited	Limited	Low	Map B-8 depicts
Drought	Likely	Extensive	Catastrophic	High	Entire City
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Entire City
Flood	Occasional	Limited	Limited	Medium	Map B-7 depicts
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire City
Extreme Heat	Highly Likely	Extensive	Critical	High	Entire City
Hazardous Materials	Likely	Limited	Limited	Low	Entire City
Fog	Likely	Extensive	Limited	Low	Entire City
Levee Failure	Occasional	Limited	Limited	Medium	Unknown
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire City
Severe Storms and High Winds	Highly Likely	Significant	Limited	Medium	Entire City

Guidelines for Hazard Rankings

Frequency of Occurrence:

Highly Likely	Near 100% probability in next year
Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

Potential Magnitude:

Catastrophic	More than 50% of area affected
Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

Significance (subjective):

low, medium, high

A.3 RISK ASSESSMENT

The intent of this section is to assess Dinuba’s vulnerability separate from that of the Operational Area as a whole which has already been assessed in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, see **Section 5** of the base plan.

Infrastructure and Values at Risk:

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The following data was provided by the City's Fire Chief. This data should only be used as a guideline to estimate facility values in the City as the information has some limitations. Generally, the land itself is not a loss. **Table A-3** shows the 2016 inventory broken down by property type for the City.

Table A-3: Dinuba 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Alice Park	Alice Avenue and W North Way	\$22,155.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Centennial Water Tower	N/E corner Rd 72/Sierra	\$2,564,541.00	Earthquake, Fog, Severe Winter Storm
CNG Fueling Station	1088 Kamm Avenue	\$903,175.00	Earthquake, Fog, Severe Winter Storm
Dinuba City Hall	405 E. El Monte Way	\$1,704,020.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Fire Administrative Office and Fire Department Water Tower	496 E. Tulare Street	\$1,234,848.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Library	150 S. I Street		Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Old Public Works Yd.	110 College Avenue	\$1,114,721.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Parks and Recreation Center	1390 E. Elizabeth Way	\$1,146,013.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Police Department	680 S. Alta Avenue	\$5,149,236.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Public Works	1088 E. Kamm Avenue	\$1,731,793.00	Earthquake, Fog, Severe Winter Storm
Dinuba Senior Citizen's Center	437 Eaton Avenue	1,863,199.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Veteran's Mem. Bldg.	249 S. Alta Avenue		Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Vocational Center	199 N. L Street	\$6,601,580.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Waste Water Treatment Facility	6675 Avenue 408	\$6,637,338.00	Earthquake, Fog
Felix Delgado Park	Vassar Avenue and S Green Avenue	\$154,132.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Gregory Park	S. College Avenue and E Academy Way		Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
K/C Park	W Kern Street and S Q Street	\$684,266.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Nebraska Park	E Nebraska Avenue and Marks Drive	\$57,324.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Nebraska Water Tower	Nebraska / Crawford	\$2,611,605.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station 1218 Golden	1218 Golden Way	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm

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Table A-3: Dinuba 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Pump Station 245 W Northway	245 W Northway	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station 680 S. Alta	S Alta / 680 S Alta Avenue	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station 889 N Alta	889 N Alta Avenue	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station Alta Avenue	S Alta / W Kern Street	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station Alta/Davis Drive	N Alta / E Davis Drive	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station Arno Street	Arno Street Lindara Tract	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station Crawford/Davis	N Crawford/Davis Drive	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station E Crawford	E Crawford/S Mt. View	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station Kamm Avenue	N Kamm / S Alta	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station Kamm/Alta	E Kamm / S Alta Avenue	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station Lillie/North Way	Lillie/North Way/Peach	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station Marshall/Wright	Marshall / Wright Avenue	\$43,217.00	Earthquake, Fog
Pump Station Merced/N M St	Merced / N M Streets	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station N Ridge/Newton	Northridge/Newton Drive	\$43,217.00	Earthquake, 100-Year Floodplain
Pump Station Olive/Randle	E Olive / Randle Avenue	\$43,217.00	Earthquake, Fog, Severe Winter Storm
Pump Station Roberts Place	Roberts Place	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station S Alta Avenue	S Alta / N M Street	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station S Alta Avenue	S Alta / E Kern Street	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station W El Monte	W El Monte / Rd 72	\$43,217.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Pump Station/Newton	Northridge/Newton Drive	\$43,217.00	Fog, Severe Winter Storm
Pump Station/Water Well Sierra/Rd 72	W Sierra Way/Rd 72	\$848,941.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Ridge Creek Golf Course	3018 W. El Monte Way	\$7,395,585.00	Earthquake, Fog, Severe Winter Storm
Roosevelt Park	S. California Street between E. Elizabeth Way and E. Park Way	\$324,458.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm

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Table A-3: Dinuba 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Rose Ann Vuich Park	E. El Monte Way and El Monte Park Streets	\$903,077.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Sewer Lift Station 651 Saginaw	651 Saginaw Avenue	\$168,020.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Sewer Lift Station Crawford	N Crawford/Gerald Avenue	\$168,020.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Sewer Lift Station Davis Drive	Davis Drive E of Newton	\$168,020.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Sewer Lift Station E El Monte	1725 E. El Monte Way	\$168,020.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Sewer Lift Station Edwards Pl	Edwards Pl / N Millard	\$168,020.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Sewer Lift Station Kamm Avenue	Kamm / Alta Avenue	\$168,020.00	Earthquake, Fog
Sewer Lift Station Laurel Avenue	Laurel / Crawford Avenue	\$168,020.00	Earthquake, Fog
Sewer Lift Station Randle Avenue	Randle Avenue / E El Monte	\$168,020.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Sewer Lift Station S O Street	Kamm / S O Street	\$168,020.00	Earthquake, Fog
Sewer Lift Station Sequoia/Alt	Sequoia Drive N Alta	\$168,020.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Water Well 500 W Sierra Way	500 W Sierra Way	\$805,724.00	Earthquake, Fog, Severe Winter Storm
Water Well 820 Euclid Avenue	820 Euclid Avenue	\$805,724.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Water Well College/S L Street	College / S. L Street	\$805,724.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Water Well Kamm/Greene St	Kamm Avenue/Greene St	\$805,724.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Water Well Milsap/Magnolia	Milsap N of Magnolia	\$805,724.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Water Well Pamela/Lillie	Pamela W Lillie Avenue	\$805,724.00	Earthquake, Fog, Severe Winter Storm
Water Well W El Monte/Rd 72	W El Monte /N Road 72	\$805,724.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
Dinuba Transit Center	180 Merced Street	\$926,160.00	Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm
College Park Recreation Center	920 S College Avenue		Earthquake, 100-Year Floodplain, Fog, Severe Winter Storm

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Critical Facilities: The City has identified the following infrastructure in **Table A-4** as critical facilities:

Table A-4: Dinuba Critical Facilities		
Facility	Address	Value
Centennial Water Tower	N/E corner Rd 72/Sierra	\$2,564,541.00
Dinuba Police Department	680 S. Alta Avenue	\$5,149,236.00
Dinuba Public Works	1088 E. Kamm Avenue	\$1,731,793.00
Dinuba Waste Water Treatment Facility	6675 Avenue 408	\$6,637,338.00
Lift Stations	Various	\$168,020.00 each
Nebraska Water Tower	Nebraska / Crawford	\$2,611,605.00
22 Pump Stations	Various	\$43,217.00 each
Pump Station/Water Well Sierra/Rd 72	W Sierra Way/Rd 72	\$848,941.00
Water Well 500 W Sierra Way	500 W Sierra Way	\$805,724.00
Water Well 820 Euclid Avenue	820 Euclid Avenue	\$805,724.00
Water Well College/S L Street	College / S. L Street	\$805,724.00
Water Well Kamm/Greene St	Kamm Avenue/Greene St	\$805,724.00
Water Well Milsap/Magnolia	Milsap N of Magnolia	\$805,724.00
Water Well Pamela/Lillie	Pamela W Lillie Avenue	\$805,724.00
Water Well W El Monte/Rd 72	W El Monte /N Road 72	\$805,724.00

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the City by evaluating the inventory of City owned existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the City was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State—January 1, 2016/2017. The population is estimated to be 24,657 in an area of 6.47 square miles. The 2010 Census Data lists 5,964 residential units valued at \$465,266,000.

The largest employer is Ruiz Foods which is America's leading frozen Mexican food manufacturer. The City is also home to Best Buy Distribution, Patterson Logistics, Wal-Mart and Ed Dena's GM Auto Center. The Best Buy Regional Distribution Center consists of 1,024,000 square feet and services retail stores in California, Nevada and Arizona.

Economic Risks

The economy of Dinuba is largely based on agriculture and food production. A variety of crops are cultivated including cotton, nuts, vegetables and fruits, including grapes (table grapes and wine), raisins,

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plums, peaches and citrus. Raisins are a major product in the Dinuba area, where 40 percent of the world's raisins are grown and dried, totaling approximately 300,000 tons annually.

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table A-5** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

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Table A-5: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its needs. During prolonged droughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from drought to the City and its communities are difficult to quantify and are dependent upon drought duration and severity. In addition to increased costs for water, prolonged drought may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the City's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p> <p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Flood	<p><u>Impacts:</u> Flooding occurs in the City during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding. The Dinuba Town Ditch has flooded the downtown area of the City in the past.</p> <p><u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$100,000,000.</p>

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Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Dinuba:

- Climate Change
- Drought
- Extreme heat
- Flood

These hazards which may impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, these are hazards that represent vulnerabilities to infrastructure. Specifically, flooding from the Dinuba Town Ditch represents a hazard to downtown Dinuba. Mitigation strategy #1, Construction of 60" storm drain line to address flooding issues in the downtown area, was developed to mitigate this vulnerability. Other hazards present vulnerabilities but to a lesser extent.

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A.4 CAPABILITIES ASSESSMENT

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's “existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.”

Elements

C1. Does the plan document the jurisdiction’s existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9,

The reason for conducting a capability assessment is to identify Dinuba’s capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of the City’s capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management practice and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the City. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

Tables A-6 through A-9 provide a list of the City’s capabilities.

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Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table A-6: Dinuba Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
2008 General Plan	<p>The City's General Plan provides a policy base to guide future growth within the City. It was created by planners, engineers and technical staff with knowledge of land development, land management practices, as well as human-caused and natural hazards. The General Plan:</p> <ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. • Applies the approved plans, policies, code provisions, and other regulations to proposed land uses. <p>The MJLHMP may be adopted as part of the Safety Element by the City Counsel. As the Safety Element is updated, revised hazard analysis from the MHLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	All	No requires updating.	Planning

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Table A-6: Dinuba Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
California Building Code Enforcement	<p>The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California including housing, public buildings and maintenance facilities. Improved safety, sustainability, maintaining consistency, new technology and construction methods, and reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.</p> <p>California's building codes are published in their entirety every three (3) years. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle. The California Seismic Safety Commission provides access to an array of regulatory and advisory information at: http://www.seismic.ca.gov/cog.html</p>	Earthquake, Fire, Floods, Severe winter storm/high winds		Regulatory
Capital Improvement Program (CIP)	<p>The City's CIP provides a foundation and planning tool to assist in the orderly acquisition of municipal facilities and to assure that service needs for the future are met. The CIP provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.</p> <p>The MJLHMP will be used to select potential projects for the CIP. As the CIP is updated, additional mitigation measures will be analyzed and included in the Dinuba section of the MJLHMP. Funding for CIP projects identified in the MJLHMP will be reviewed for mitigation grant program eligibility.</p>	Dam Failure, Earthquake, Fire, Floods, Landslides, Levee failure, Severe winter storm/high winds		Planning

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Table A-6: Dinuba Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Municipal Service Review (MSR)	<p>MSRs are intended to provide a comprehensive analysis of service provision by each of the special districts and other service providers within the legislative authority of the (LAFCo) of a city. This analysis focuses on service providers within the City of Dinuba and makes determinations in each area of evaluation. The MSR considers and makes recommendations based on the following information:</p> <ul style="list-style-type: none"> • Present and planned land uses in the area. • Present and probable need for services in the area. • Present ability of each service provider to provide necessary services. • The fiscal, management, and structural health of each service provider. • The existence of any social or economic communities of interest in the area. 	All	Yes 2012 Chapter Three: Present and Planned Capacity of Public Facilities and Adequacy of Public Services, Including Infrastructure Needs or Deficiencies	Planning

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Table A-6: Dinuba Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Dinuba Urban Water Management Plan	<p>The Urban Water Management Plan is required by California Water Code §10644(a) and requires urban water suppliers to file with the Department of Water Resources (DWR), the California State Library, and any City or County within which the supplier provides water supplies, a copy of its Urban Water Management Plan. UWMP's are to be prepared every five years by urban water suppliers with 3,000 or more service connections or supplying 3,000 or more acre-feet of water per year.</p> <p>The purpose of this UWMP is to be a baseline document and source of information for DWR and to serve as:</p> <ul style="list-style-type: none"> • A short and long range planning document for water supply, • Data source for the development of a regional water supply plan, • A source document for the City of Dinuba in preparing updated General Plans, and • A key component of an Integrated Regional Water Management Plan 	Climate change, Drought	2012	Planning
Transit Development Plan (TDP)	A TDP is a blueprint for the delivery of transportation services provided to the general public. The TDP will serve as a guide for improving public transit services within the Dinuba area over a five-year planning horizon. The TDP will provide the community, policy makers, and city staff an opportunity to understand current transit conditions, define the future demand for service within the area, and establish an operational and capital plan to meet those demands.	Dam inundation, Fire, Floods, Terrorism,	2014	Planning

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Table A-6: Dinuba Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
City Code Chapter 13.76 Flood Damage Prevention	<p>This purpose is to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by designated provisions:</p> <p>The MJLHMP contains several specific mitigation measures in support flood control. The City Flood Damage Prevention Code will be reviewed based on MJLHMP hazard description updates and mitigation actions.</p>	Flood	2016	Regulatory
Emergency Operations Plan (revised 2003)	<p>Describes what the local jurisdiction's actions will be during a response to an emergency. Includes annexes that describe in more detail the actions required of the local jurisdiction's departments/agencies. Further, this plan describes the role of the Emergency Operation Center (EOC) and the coordination that occurs between the EOC and the local jurisdiction's departments and other response agencies. Finally, this plan describes how the EOC serves as the focal point among local, State, and Federal governments in times of disaster.</p> <p>Describes what the local jurisdiction's actions will be during a response to an emergency. Includes annexes that describe in more detail the actions required of the local jurisdiction's departments/agencies. Further, this plan describes the role of the Emergency Operation Center (EOC) and the coordination between the EOC and the local/tribal jurisdictions. Lastly, the EOP describes how the EOC serves as the point of coordination between local, tribal, State, and Federal agencies during a disaster. The MJLHMP provides the basis for the hazards included and described in the EOP.</p>	All	No	Regulatory

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Table A-6: Dinuba Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	The MJLHMP will be used as an essential tool to update the City EOP. Cal OES requires that EOPs describe applicable hazards as part of the Plan. The latest MJLHMP hazards descriptions will be included. Mitigation actions that are preparedness and response in nature will be analyzed for applicability to include in the description of EOP processes and procedures.			
Other City Code of Ordinances	<p>The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; to regulate and control the demolition of all buildings and structures and for related purposes.</p> <p>The MJLHMP will provide both hazard descriptions and mitigation actions that may address energy conservation, fire protection and development in hazard prone areas. The maps of Dinuba related hazards will be used to augment other mapping products to protect public health and safety when updating City Code.</p>	Earthquake, Fire, Flooding,		Regulatory
Fire Department Master Plan	The purpose of this plan is to guide the City in regards to maintaining levels of service and account for the impact of future growth.	All		Planning

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Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table A-7: Dinuba Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
City Public Works Department	Maintains and operates a wide range of local equipment and facilities as well as provides assistance to members of the public. Services include providing sufficient potable water, reliable waste water services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.	All		Technical
Procurement Department	Provides a full range of municipal financial services, administers several licensing measures, and functions as the plan participant's Procurement Services Manager.	All		Technical
City Engineering Services Department	<ul style="list-style-type: none"> Develops and maintains the General Plan including the Safety Element. Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. Anticipates and acts on the need for new plans, policies, and Code changes. Applies the approved plans, policies, code provisions, and other regulations to proposed land uses. 	All		Technical
City Development	Provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.	All		Technical

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Table A-7: Dinuba Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Services Department				
City Fire Department	Maintains and updates the Emergency Operations Plan and coordinates local response and relief activities within the Emergency Operation Center. Works closely with County, State, and Federal partners to support planning and training and to provide information and coordinate assistance.	All		Technical

Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table A-8: Dinuba Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Dinuba General Fund	Program operations and specific projects.	All		Financial, Financial Services Department
Dinuba General Obligation (GO) Bonds	GO Bonds are appropriately used for the construction and/or acquisition of improvements to real property broadly available to residents and visitors. Such facilities include, but are not limited to, libraries, hospitals, parks, public safety facilities, and cultural and educational facilities.	All		Financial, Financial Services Department
Lease Revenue Bonds	Lease revenue bonds are used to finance capital projects that (1) have an identified budgetary stream for repayment (e.g., specified fees, tax receipts, etc.); (2) generate project revenue but rely on a broader pledge of general fund revenues to reduce borrowing costs; or (3) finance the acquisition and installation of	All		Financial, Financial Services Department

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	equipment for the local jurisdiction's general governmental purposes.			
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Education and Outreach: These capabilities include programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

Table A-9: Dinuba Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach
Dinuba Website http://www.dinuba.org/ and other social media	Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts. The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.	All		Education and Outreach

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A.5 MITIGATION STRATEGY

Table A-10 lists the City specific mitigation actions from the 2011 Plan and provides their status.

Table A-10: Dinuba-Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
2	Y	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	A, B, C, D, E	Not Applicable	City of Dinuba Development Services Dept.	Ongoing – Mitigation Action 5 in 2017 MJLHMP
3	Y	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	A, B, C	Unknown	City of Dinuba Development Services Dept.	Ongoing – Mitigation Action 6 in 2017 MJLHMP
8	Y	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	A, B, C, D	Unknown	City of Dinuba Development Services Dept.	Ongoing – Mitigation Action 7 in 2017 MJLHMP

Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

All of the City’s mitigation strategies from the 2011 HMP are still relevant to this update. **Table A-11** contains an updated set of potential mitigation strategies. These mitigation strategies were derived from numerous sources including the General Plan, City Code, Capital Improvement Plan and input from the public and stakeholders.

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Table A-11: Dinuba-Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the City LHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
6	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State, County and City fire standards.	FR	Mit.
7	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or State responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
9	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.

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10	Reinforce ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
11	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	FL	Mit.
12	Increase participation in the NFIP by entering the Community Rating System program through which enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
13	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the City. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
14	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
15	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
16	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
17	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
18	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the City shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
19	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.

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20	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.
21	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.
22	Fire Station # 2: Construct a second fire station on the west side of Dinuba to account for increased population. Estimated cost is \$4M.	FR, HZ	Resp.
23	Kern Street Storm Drain: Construction of 60" storm drain line to address flooding issues in the downtown area. Estimated cost is \$3.3M.	FL	Mit

A list of mitigation actions was selected from the mitigation strategies. **Table A-12** provides the mitigation 2017 MJLHMP actions for the City. New priorities for mitigation actions are listed in the table.

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Table A-12: Dinuba - Mitigation Actions

Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Kern Street Storm Drain: Construct a 60" storm drain line to address flooding issues in the downtown area.	Public Works	Estimated cost is \$3.3 M	High	2-5 years
2	Fire Station # 2: Construct a second fire station on the west side of Dinuba to account for increased population. Estimated cost is \$4M.	Fire	Estimated cost is \$4M	High	2-5 years
3	Reinforce bridges and roads from flooding through protection activities, including installing /increasing the size of culverts beneath roads in areas that experience regular flooding.	Public Works	Unknown	High	5 or more years
4	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	Planning	Unknown	High	5 or more years
5	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Unknown	Medium	One year
6	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	Public Works	Unknown	Low	5 or more years
7	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	Develop ment	Unknown	High	5 or more years

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. In Dinuba, these other planning documents include the General Plan Update, Capital Improvement Program, Dinuba Urban Water Management Plan, Transit Development Plan and Fire Department Master Plan. The term “consistency” in planning terms means that the general plan

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and the other plans have similar community goals and policies, that they advocate similar land use patterns, and they are consistent in their guidance of direction and rate of growth.

Many of the plans listed in the Capabilities Assessment mentioned in Section A.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Dinuba Annex into the Health and Safety Element of the City's General Plan.
- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances
- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices
- Resource for developing and/or updating emergency operations plans, emergency response plans, etc.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate. Specific incorporation of the Plan risk assessment elements into the natural resources and safety elements of each jurisdictions' General Plans (County comprehensive plan) and development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

2017 Tulare County MJLHMP - Annex B City of Exeter

Annex B City of Exeter

Exeter was founded in 1888. The City was incorporated in 1911 and became a Charter City in June of 1998. The City provides the following services:

- Public safety (police), (fire and ambulance provided by the County)
- Domestic water
- Sanitary sewer treatment and disposal
- Transportation
- Parks and recreation

The City contracts with a private carrier to provide pickup of solid waste within the City limits.

B.1 Community Profile

Geography and Climate: The City has a total area of 2.46 square miles. The City is relatively flat with an elevation of approximately 390 feet above sea level. Exeter's climate can be described as dry Mediterranean. The summers are hot and dry, and winters are characterized by moderate temperatures and light precipitation. Temperatures and rainfall for Exeter are typical of that of the rest of the valley floor portion of the County.

Government: Exeter operates as a council-manager form of municipal government which is comprised of five council members serving four-year overlapping terms.

Population and Demographics: California Department of Finance (DOF) data indicates that as of January 1, 2015, Exeter had a population of 10,572, corresponding to an annual average growth rate of approximately 0.95% between 2000 and 2015. 2015 DOF data also indicates that the average dwelling unit occupancy rate for the City is 3.07 persons per household, which is significantly lower than the County average of 3.4 persons per household. The population density was 4,287.8 people per square mile. The racial makeup of Exeter was 7,150 (69.2%) White; 67 (0.6%) African American; 171 (1.7%) Native American; 138 (1.3%) Asian; 8 (0.1%) Pacific Islander; 2,416 (23.4%) from other races; and 384 (3.7%) from two or more races. Hispanic or Latino of any race were 4,703 persons (45.5%). The Census reported that 10,261 people (99.3% of the population) lived in households, 57 people (0.6%) lived in non-institutionalized group quarters, and 16 people (0.2%) were institutionalized.

There were 3,378 households, out of which 1,552 (45.9%) had children under the age of 18 living in them, 1,801 (53.3%) were opposite-sex married couples living together, 575 (17.0%) had a female householder with no husband present, 227 (6.7%) had a male householder with no wife present. There were 233 (6.9%) unmarried opposite-sex partnerships, and 12 (0.4%) same-sex married couples or partnerships. 652 households (19.3%) were made up of individuals and 313 (9.3%) had someone living alone who was 65 years of age or older. The average household size was 3.04. There were 2,603 families (77.1% of all households); the average family size was 3.45.

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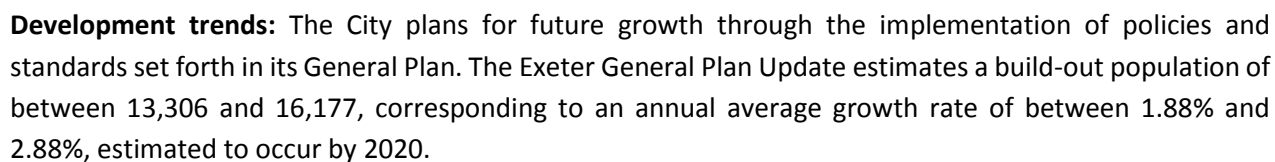
Housing: There were 3,737 housing units at an average density of 1,459.8 per square mile of which 2,056 (55.0%) were owner-occupied, and 1,438 (38.5%) were occupied by renters. The housing vacancy rate was 6.5%.

Economy: The economy of Exeter is largely based on agriculture and food production. The 2015 unemployment rate in Exeter was 10.80% with job growth of 3.75%. Future job growth over the next ten years is predicted to be 36.70%. Major employers in Exeter include Waterman Industries, Svenhard's Swedish Bakery and Peninsula Packaging.

Land use: Exeter is a compact community occupying an area where urban growth has extended in all directions from the original 1888 town site. Exeter's downtown and its older residential neighborhoods are contained within a triangular area that is formed by the Southern Pacific Railroad on the west, the Visalia Electric Railroad on the north and State Route 65 (Kaweah Avenue) on the east. The City's industrial districts, which are dominated by agriculturally-related uses such as packing houses and cold-storage facilities, are located along the Southern Pacific Railroad, the Atchison Tehachapi and Santa Fe Railroad, and Industrial Drive, located immediately south of the original town site. Single-family residential development has occurred in all quadrants of the City with most of this type of development occurring on the west side of town since 1990. Development of multiple family residential dwellings has been limited. These units provide housing opportunities for low- to moderate-income families in the community. Commercial development is centered in downtown and to a lesser extent, along Visalia Road and Kaweah Avenue (State Route 65). Recent developments include fast-food franchises on Visalia Road, an office complex on north Kaweah Avenue, a Best Western Hotel on south Kaweah Avenue, and numerous remodels of retail space in the downtown.

Schools and parks are scattered throughout the community, located in neighborhoods that are experiencing a demand for these types of public facilities. An elementary school was constructed on Sequoia Drive in the northeast quadrant of the City, and the school district recently purchased a future elementary school site in the southwest quadrant. **Figure B-1** provides a detailed land use and zoning map of Exeter.

Figure B-1: Land Use and Zoning



Development in hazard prone areas:

3

2017 Tulare County MJLHMP - Annex B City of Exeter

Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

Updated dam inundation maps include a much larger area of the County. While little new development occurred in the expanded inundation zones, vulnerability to dam inundation increased substantially and now includes most of the most populace areas of the County. Updated dam inundation maps for the County and affected cities are included in **Appendix B**.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire City. Development in the City, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

B.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: Exeter faces many of the hazards that are present in the County. **Table B-1** below provides a summary of hazards. There are no hazards that are unique to Exeter. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include wildfire, earthquake liquefaction - subsidence, civil unrest and terrorism/cyber terrorism.

Table B-2: Exeter Summary of Hazards					
Hazard	Frequency	Extent	Magnitude	Significance	Potential Locations
Climate Change	Highly likely	Extensive	Catastrophic	High	Entire City
Dam Failure	Unlikely	Extensive	Catastrophic	Low	Map B-9 depicts
Drought	Likely	Extensive	Catastrophic	High	Entire City
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Entire City
Flood	Occasional	Limited	Limited	Medium	Unknown
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire City
Extreme Heat	Highly Likely	Extensive	Critical	High	Entire City
Fog	Likely	Extensive	Limited	Low	Entire City
Hazardous Materials	Likely	Limited	Limited	Low	Entire City
Levee Failure	Occasional	Limited	Limited	Medium	Unknown
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire City
Severe Storms and High Winds	Highly Likely	Significant	Limited	Medium	Entire City

Guidelines for Hazard Rankings

Frequency of Occurrence:

Highly Likely	Near 100% probability in next year
Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

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Potential Magnitude:

Catastrophic	More than 50% of area affected
Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

Significance (subjective):

Low, medium, high

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B.3 RISK ASSESSMENT

The intent of this section is to assess Exeter's vulnerability separate from that of the Operational Area as a whole, which has already been assessed in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, see **Section 5** of the base plan.

Infrastructure and Values at Risk:

The following data was provided by the City's Administrator. This data should only be used as a guideline to estimate facility values in the City as the information has some limitations. Generally, the land itself is not a loss. **Table B-3** shows the 2016 inventory for the City.

Table B-3: Exeter 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Exeter City Hall	137 North F Street		Earthquake, 500-Year Floodplain, Fog
Exeter Administration & Police Department	100 N. C Street		Earthquake, 500-Year Floodplain, Fog
Corporation Yard Public Works Offices	350 W. Firebaugh		Earthquake, 500-Year Floodplain, Fog
Utility Building	314 W. Firebaugh		Earthquake, 500-Year Floodplain, Fog
Residential Rental Property	310 W. Firebaugh		Earthquake, 500-Year Floodplain, Fog
Wastewater Treatment Plant	1906 W. Myer		Earthquake, 500-Year Floodplain, Fog
Senior Center/Carnegie Building	E Street/Chestnut		Earthquake, 500-Year Floodplain, Fog
Courthouse Gallery	125 S. B Street		Earthquake, 500-Year Floodplain, Fog
Mural Gallery	119 S. E Street		Earthquake, 500-Year Floodplain, Fog
City Park	Chestnut & E Street		Earthquake, 500-Year Floodplain, Fog
Dobson Field	Rocky Hill Drive and 2nd Street		Earthquake, 500-Year Floodplain, Fog
Joyner Park	Pine & C Street		Earthquake, 500-Year Floodplain, Fog
Rose Garden Park	Palm & A Street		Earthquake, 500-Year Floodplain, Fog
Planter Park	Maple & B Street		Earthquake, 500-Year Floodplain, Fog
Schelling Park	Pine & Filbert		Earthquake, 500-Year Floodplain, Fog
Mixture Park	Pine & E Street		Earthquake, 500-Year Floodplain, Fog
Schroth Park	Vine & Belmont Road		Earthquake, 500-Year Floodplain, Fog
Unger Park	Belmont Road & Glaze Avenue		Earthquake, 500-Year Floodplain, Fog
Brickhouse Park	Palm & Filbert		Earthquake, 500-Year Floodplain, Fog
Water Tower Park	Pine Street and B Street		Earthquake, 500-Year Floodplain, Fog
Exeter Bark Park	F Street / Palm		Earthquake, 500-Year Floodplain, Fog
Public Golf Course (Privately owned)	510 W. Visalia Road		Earthquake, 500-Year Floodplain, Fog

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Exeter Airport (Not a municipal facility)	Belmont Road, south of Avenue 256		Earthquake, 500-Year Floodplain, Fog
Pump Station	350 W. Firebaugh		Earthquake, 500-Year Floodplain, Fog
Pump Station	Belmont Road and Glaze Avenue		Earthquake, 500-Year Floodplain, Fog
Pump Station	Vine Street and Belmont Road		Earthquake, 500-Year Floodplain, Fog
Pump Station	Orange Avenue and Firebaugh		Earthquake, 500-Year Floodplain, Fog
Filbert Lift Station	Filbert Road and King Street		Earthquake, 500-Year Floodplain, Fog
Industrial Lift Station	Firebaugh and Industrial Drive		Earthquake, 500-Year Floodplain, Fog
Lenox Lift Station	Lenox Avenue and Bryant Court		Earthquake, 500-Year Floodplain, Fog
A & W Lift Station	Kaweah Avenue and Sequoia Drive		Earthquake, 500-Year Floodplain, Fog
Rocky Hill Lift Station	Sequoia Drive between D Street and B Street		Earthquake, 500-Year Floodplain, Fog
Visalia Road Lift Station	Visalia Road and Belmont Road		Earthquake, 500-Year Floodplain, Fog
Quince Lift Station	Alley between Willow Street, Vine Street, Orange Avenue and Quince Avenue		Earthquake, 500-Year Floodplain, Fog
Kaweah Trailer Park Lift Station (Privately maintained)	Kaweah Avenue south of Firebaugh		Earthquake, 500-Year Floodplain, Fog
Rancho Lift Station (Privately maintained)	On Albert Avenue, north of Visalia Road		Earthquake, 500-Year Floodplain, Fog
Self Help Lift Station (Privately maintained)	Belmont Road, south of Visalia Road		
Water Retention Pond – “Brickyard”	Belmont Road north of SJVRR tracks		Earthquake, 500-Year Floodplain, Fog
Exeter Water Tower	Pine Street and B Street		Earthquake, 500-Year Floodplain, Fog
Water Retention Pond – “Park Place”	Belmont Road, North of SJVRR tracks		Earthquake, 500-Year Floodplain, Fog
Water Retention Pond – “City Yard”	Rear of Corporation Yard – 350 West Firebaugh		Earthquake, 500-Year Floodplain, Fog
Well E-5W (not in service)	East Willow Street, east of South D Street		Earthquake, 500-Year Floodplain, Fog
Well E6-W	Palm Avenue and G Street		Earthquake, 500-Year Floodplain, Fog
Well E9-W	Behind 655 W. Visalia Road		Earthquake, 500-Year Floodplain, Fog
Well E-10W (not in service)	Industrial Drive, south of Firebaugh		Earthquake, 500-Year Floodplain, Fog
Well E-11W	Belmont Road, south of Visalia Road		Earthquake, 500-Year Floodplain, Fog

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Well E-12W	Kaweah Avenue, south of Atkinson Way		Earthquake, 500-Year Floodplain, Fog
Well E-13W	Belmont Road and Glaze Avenue		Earthquake, 500-Year Floodplain, Fog
Well E-14W	South Filbert Road, north of Atwood Avenue		Earthquake, 500-Year Floodplain, Fog

Critical Facilities: The City has identified the following infrastructure in **Table B-4** as critical facilities:

Table B-4: Exeter Critical Facilities		
Facility	Address	Value
A & W Lift Station	Kaweah Avenue and Sequoia Drive	
Exeter City Hall	Exeter City Hall	
137 North F Street	137 North F Street	
Exeter Administration & Police Department	Exeter Administration & Police Department	
100 N. C Street	100 N. C Street	
Filbert Lift Station	Filbert Lift Station	
Filbert Road and King Street	Filbert Road and King Street	
Industrial Lift Station	Industrial Lift Station	
Waste Water Treatment Facility	1906 W. Myer	

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the City by evaluating the inventory of City owned existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the City was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State—January 1, 2016/2017. The population is estimated to be 10,774 in an area of 2.26 square miles. There are 3,600 residential units with a median value of \$165,300.

The largest industries are food and agriculture, retail sales and health care. Major employers in Exeter include Waterman Industries, Svenhard's Swedish Bakery and Peninsula Packaging.

Economic Risks

The economy of Exeter is largely based on agriculture and food production. A variety of crops are cultivated with a large concentration in citrus.

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses

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calculated in **Table B-5** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

Table B-5: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its needs. During prolonged draughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from draught to the City and its communities are difficult to quantify and are dependent upon draught duration and severity. In addition to increased costs for water, prolonged draught may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the City's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p> <p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Flood	<p><u>Impacts:</u> Flooding occurs in the City during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding.</p>

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	<u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$100,000,000. Flooding from the Penny Baker Ditch or other unnamed canals pose a potential flood vulnerability.
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Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Exeter:

- Climate Change
- Drought
- Extreme heat
- Flood

These hazards which impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, there are hazards that represent vulnerabilities to infrastructure. Specifically, flooding from the

B.4 CAPABILITIES ASSESSMENT

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's “existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.”

Elements

C1. Does the plan document the jurisdiction’s existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The reason for conducting a capability assessment is to identify Exeter’s capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of the City’s capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management practices, and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the City. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

Tables B-6 through B-9 provide a list of the City’s capabilities.

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Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table B-6 Exeter Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Plan 2003	<p>The City's General Plan provides a policy base to guide future growth within the City. It was created by planners, engineers and technical staff with knowledge of land development, land management practices, as well as human-caused and natural hazards. The General Plan:</p> <ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. <p>Applies the approved plans, policies, code provisions, and other regulations to proposed land uses.</p> <p>The MJLHMP may be adopted as part of the Safety Element by the City Counsel. As the Safety Element is updated, revised hazard analysis from the MHLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	All	No requires update	Planning
California Building Code Enforcement	The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California including housing, public buildings and maintenance facilities. Improved safety, sustainability, maintaining consistency, new technology and construction methods, and reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.	Earthquake, Fire, Floods, Severe winter storm/high winds		Regulatory

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Table B-6 Exeter Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<p>California's building codes are published in their entirety every three (3) years. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle. The California Seismic Safety Commission provides access to an array of regulatory and advisory information at: http://www.seismic.ca.gov/cog.html</p>			
Capital Improvement Program (CIP)	<p>The City's CIP provides a foundation and planning tool to assist in the orderly acquisition of municipal facilities and to assure that service needs for the future are met. The CIP provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.</p> <p>The MJLHMP will be used to select potential projects for the CIP. As the CIP is updated, additional mitigation measures will be analyzed and included in the Exeter section of the MJLHMP. Funding for CIP projects identified in the MJLHMP will be reviewed for mitigation grant program eligibility.</p>	Dam Failure, Earthquake, Fire, Floods, Landslides, Levee failure, Severe winter storm/high winds		Planning
Municipal Service Review (MSR)	<p>MSRs are intended to provide a comprehensive analysis of service provision by each of the special districts and other service providers within the legislative authority of the (LAFCo) of a city. This analysis focuses on service providers within the City of Exeter and makes determinations in each area of evaluation. The MSR considers and makes recommendations based on the following information:</p> <ul style="list-style-type: none"> • Present and planned land uses in the area. • Present and probable need for services in the area. • Present ability of each service provider to provide necessary services. 	All		Planning

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Table B-6 Exeter Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<ul style="list-style-type: none"> The fiscal, management, and structural health of each service provider. The existence of any social or economic communities of interest in the area. 			
City Code of Ordinances	<p>The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; to regulate and control the demolition of all buildings and structures, and for related purposes.</p> <p>The MJLHMP will provide both hazard descriptions and mitigation actions that may address energy conservation, fire protection and development in hazard prone areas. The maps of Dinuba related hazards will be used to augment other mapping products to protect public health and safety when updating City Code.</p>	Earthquake, Fire, Flooding,		Regulatory

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Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table B-7: Exeter Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
City Public Works Department	Maintains and operates a wide range of local equipment and facilities as well as provides assistance to members of the public. Services include providing sufficient potable water, reliable waste water services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.	All		Technical
Procurement Department	Provides a full range of municipal financial services, administers several licensing measures, and functions as the plan participant's Procurement Services Manager.	All		Technical

Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table B-8: Exeter Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Fund	Program operations and specific projects.	All		Financial, Financial Services Department

Education and Outreach: These capabilities include programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

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Table B-9: Exeter Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach
Exeter Website https://cityofexeter.com/ and other social media	Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts. The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.	All		Education and Outreach

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B.5 MITIGATION STRATEGY

Table B-10 lists the City specific mitigation actions from the 2011 Plan and provides their status.

Table B-10: Exeter-Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
2	Y	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	A, B, C, D, E	Not Applicable	City Planning Dept.	Ongoing – Mitigation Action 5 in 2017 MJLHMP
3	Y	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	A, B, C	Unknown	City Public Works Dept.	Ongoing – Mitigation Action 6 in 2017 MJLHMP
7	Y	Acquire, relocate, or elevate residential structures, in particular those that have been identified as RL properties that are located within the 500-year floodplain.	A, B, C, D	2 RL properties are located in the City of Exeter	City Public Works Department	Not completed - Mitigation Action 8 in 2017 MJLHMP
8	Y	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	A, B, C, D	Unknown	City of Planning Dept.	Ongoing – Mitigations Action 7 in 2017 MJLHMP

Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

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All of the City's mitigation strategies from the 2011 HMP are still relevant to this update. **Table B-11** contains an updated set of potential mitigation strategies for new Plan. These mitigation strategies were derived from numerous sources including the General Plan, City Code, Capital Improvement Plan and input from the public and stakeholders.

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Table B-11: Exeter- Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the Tulare County MJLHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
6	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
7	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or State responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
9	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.

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10	Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
11	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	FL	Mit.
12	Increase participation in the NFIP by entering the Community Rating System program through which enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
13	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
14	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
15	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
16	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
17	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
18	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
19	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
20	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.

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21	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.
22	Develop a five-acre detention basin to catch all storm water running from south of town. Once storm water is collected, it is pumped into an irrigation ditch owned by Consolidated Peoples Ditch	FL	Mit.
23	Develop alternative resources for acquisition of fuel during prolonged power outages	EN	Prep.
24	Continue aggressive clearing of storm drain problem areas for mitigation/prevention of localized flooding.	FL	Mit.

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A list of mitigation actions was selected from the mitigation strategies. **Table B-12** provides the mitigation 2017 MJLHMP actions for the City. New priorities for mitigation actions are listed in the table.

Table B-12: Exeter - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Develop a five-acre detention basin to catch all storm water running from south of town. Once storm water is collected, it is pumped into an irrigation ditch owned by Consolidated Peoples Ditch	Public Works	Unknown	High	5 or more years
2	Develop alternative resources for acquisition of fuel during prolonged power outages	Public Works	Unknown	High	2-5 years
3	Continue aggressive clearing of storm drain problem areas for mitigation/prevention of localized flooding.	Public Works	Unknown	High	5 or more years
4	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	Planning	Unknown	High	5 or more years
5	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Unknown	Medium	5 or more years
6	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	Public Works	Unknown	Low	5 or more years
7	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	Development	Unknown	High	5 or more years
8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as RL properties that are located within the 500-year	Development	Unknown	High	2-5 years

2017 Tulare County MJLHMP - Annex B City of Exeter

	floodplain. 2 RL properties are located in the City of Exeter				
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Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. In Exeter, these other planning documents include the General Plan Update, Exeter Downtown Specific Plan, Exeter Redevelopment Plan, the zoning ordinance and various infrastructure master plans. The term “consistency” in planning terms means that the general plan and the other plans have similar community goals and policies, that they advocate similar land use patterns, and they are consistent in their guidance of direction and rate of growth.

Many of the plans listed in the Capabilities Assessment mentioned in Section B.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Exeter Annex into the Health and Safety Element of the City’s General Plan.
- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances
- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices
- Resource for developing and/or updating emergency operations plans, emergency response plans, etc.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate. Specific incorporation of the Plan risk assessment elements into the natural resources and safety elements of each jurisdictions’ General Plans (County comprehensive plan) and development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

2017 Tulare County MJLHMP - Annex C City of Farmersville

Annex C City of Farmersville

The City was incorporated in 1960. The City of Farmersville provides the following services:

- Public safety (police and fire protection, ambulance)
- Highways and streets
- Wastewater collection, treatment, and disposal
- Domestic water
- Storm drainage

The City contracts for solid waste collection and disposal.

C.1 Community Profile

Geography and Climate: The City has a total area of 2.36 square miles. The City is relatively flat with an elevation of approximately 358 feet above sea level. Farmersville's climate can be described as dry Mediterranean. The summers are hot and dry, and winters are characterized by moderate temperatures and light precipitation. Temperatures and rainfall for Farmersville are typical of that of the rest of the valley floor portion of the County.

Government: The City was incorporated in 1960. Farmersville operates as a council-manager form of municipal government which is comprised of five council members serving four-year overlapping terms. One of the council members also serves as mayor.

Population and Demographics: The 2010 U.S. Census reported that Farmersville had a population of 10,588 up from 8,737 at the 2000 census.. The population density was 4,688.2 people per square mile. The racial makeup of Farmersville was 5,295 (50.0%) White; 60 (0.6%) African American; 213 (2.0%) Native American; 72 (0.7%) Asian; 5 (0.0%) Pacific Islander; 4,494 (42.4%) from other races; and 449 (4.2%) from two or more races. Hispanic or Latino of any race were 8,876 persons (83.8%). The Census reported that 10,588 people (100% of the population) lived in households, no one (0%) lived in non-institutionalized group quarters, and no one (0%) was institutionalized.

In 2010, there were 2,595 households, out of which 1,639 (63.2%) had children under the age of 18 living in them, 1,474 (56.8%) were opposite-sex married couples living together, 515 (19.8%) had a female householder with no husband present, 274 (10.6%) had a male householder with no wife present. There were 257 (9.9%) unmarried opposite-sex partnerships, and 10 (0.4%) same-sex married couples or partnerships. 258 households (9.9%) were made up of individuals and 110 (4.2%) had someone living alone who was 65 years of age or older. The average household size was 4.08. There were 2,263 families (87.2% of all households); the average family size was 4.28.

Housing: As of 2015, there were 2,726 housing units at an average density of 1,207.0 per square mile, of which 1,590 (61.3%) were owner-occupied, and 1,005 (38.7%) were occupied by renters. The homeowner vacancy rate was 2.5%; the rental vacancy rate was 4.2%. 6,537 people (61.7% of the population) lived in owner-occupied housing units and 4,051 people (38.3%) lived in rental housing units.

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Economy: Farmersville serves mostly as a commuter town. Local commerce is composed of mostly small, family-owned businesses. The City also hosts a number of major chain stores and restaurants, including Family Dollar stores as well as AutoZone, Napa, and O'Reilly's auto parts stores. Major industrial manufacturers with operations in Farmersville include Cemex, Dunns Sand, and National Raisin Company which operates a fruit dehydrator in the city. La Mejor del Valle tortilla factory, a manufacturer of Mexican food products, is headquartered in Farmersville.

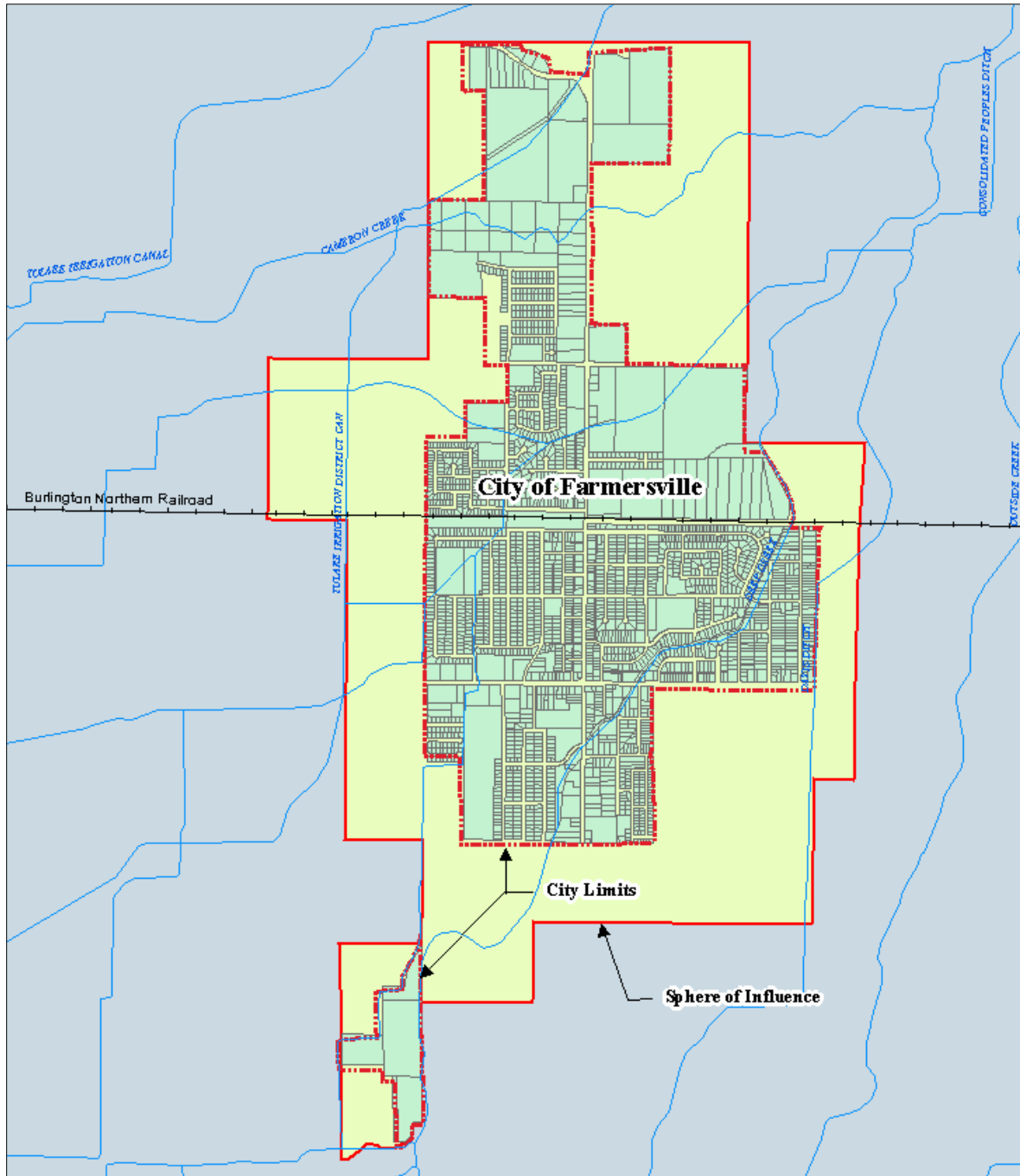
Land use: Farmersville's urban area is generally centered along Farmersville Boulevard, the City's major north/south roadway. The City's downtown commercial area is situated along Farmersville Boulevard generally between Visalia Road and Front Street. Additional commercial areas are located on Visalia Road, east and west of Farmersville Boulevard and on Farmersville Boulevard, north of Front Street and south of Visalia Road.

Residential neighborhoods are located throughout the City, with the oldest neighborhoods located around the intersection of Farmersville Boulevard and Visalia Road. Newer residential development is occurring in the northwest portion of the City north and south of Walnut Avenue. The City has experienced a very limited amount of industrial development; current uses include a nut/fruit drying plant, and a cement mixing plant. The City's only industrial park is located along Terry Avenue, west of Farmersville Boulevard.

Major facilities owned by the City of Farmersville include six neighborhood parks, the Farmersville Civic Center, a public works yard, one City-operated child care facility, two community centers and the City's wastewater treatment plant located southwest of the City. **Figure C-1** provides a detailed land use and zoning map of Farmersville.

2017 Tulare County MJLHMP - Annex C City of Farmersville

Figure C-1: Land Use and Zoning



Development trends: The City plans for future growth through the implementation of policies and standards set forth in its General Plan. The Farmersville General Plan Update (Collins & Schoettler Planning Consultants, September 2002) estimates a build-out population between 17,854 and 20,155, estimated to occur by year 2025. The plan's "low" population projection is based on Farmersville's average annual growth rate from 1980 to 2000 (2.9%), while its "high" population projection is based on the average

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annual growth rate from 1990 to 2000 (3.4%). The General Plan Update provides a land needs evaluation for a projected year 2025 build-out population of 17,854.

Development in hazard prone areas:

Because population growth was less than two percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the County. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

Updated dam inundation maps include a much larger area of the County. While little new development occurred in the expanded inundation zones, vulnerability to dam inundation increased substantially and now includes most of the most populace areas of the County. Updated dam inundation maps for the County and affected cities are included in **Appendix B**.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire City. Development in the City, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

C.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: Farmersville faces many of the hazards that are present in the County. **Table C-1** below provides a summary of hazards. There are no hazards that are unique to Farmersville. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include wildfire, earthquake liquefaction - subsidence, civil unrest and terrorism/cyber terrorism. The entire City is within the potential inundation zone for Terminus Dam.

Table C-1: Farmersville Summary of Hazards					
Hazard	Frequency	Extent	Magnitude	Significance	Potential Locations
Climate Change	Highly likely	Extensive	Catastrophic	High	Entire City
Dam Failure	Unlikely	Extensive	Catastrophic	Low	Map B-11 depicts
Drought	Likely	Extensive	Catastrophic	High	Entire City
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Entire City
Flood	Occasional	Limited	Limited	Medium	Map B-10 depicts
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire City
Extreme Heat	Highly Likely	Extensive	Critical	High	Entire City
Fog	Likely	Extensive	Limited	Low	Entire City
Hazardous Materials	Likely	Limited	Limited	Low	Entire City
Levee Failure	Occasional	Limited	Limited	Medium	Unknown
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire City
Severe Storms and High Winds	Highly Likely	Significant	Limited	Medium	Entire City

Guidelines for Hazard Rankings

Frequency of Occurrence:

Highly Likely Near 100% probability in next year

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Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

Potential Magnitude:

Catastrophic	More than 50% of area affected
Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

Significance (subjective):

low, medium, high

C.3 RISK ASSESSMENT

The intent of this section is to assess Farmersville's vulnerability separate from that of the Operational Area as a whole, which has already been assessed in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, see **Section 5** of the base plan.

Infrastructure and Values at Risk:

The following data was provided by the City's Fire Chief. This data should only be used as a guideline to overall values in the City as the information has some limitations. Generally, the land itself is not a loss.

Table C-2 shows the 2016 inventory for the City.

Table C-2: Farmersville 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Armstrong Park	E. Ash Street and N. Avery Avenue	\$66,000	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Child Care Facility	455 N. Linnel Avenue	\$1,176,200	Earthquake, 100-Year Floodplain, Fog, Dam Flood
Church/Museum	Front and Farmersville Boulevard	\$126,000	Earthquake, 100-Year Floodplain, Fog, Dam Flood
City Bridge #1	0.2 Mi E. Of Rd 164	\$500,000	Earthquake, 500-Year Floodplain, Flood Dam, Fog
City Bridge #2	Between Larry Street and Costner Street	\$1,000,000	Earthquake, 500-Year Floodplain, Flood Dam, Fog
City Bridge #3	0.15 Mi south of Avenue 280	\$750,000	Earthquake, Fog, Dam Flood
City Bridge #4	N. Dwight Street and Oak View Avenue	\$1,000,000	Earthquake, Dam Flood, Fog
City Hall	909 W. Visalia Road	\$4,938,700	Earthquake, Fog, Dam Flood

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Table C-2: Farmersville 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
City Well	873 S. Farmersville Boulevard	\$138,060	Earthquake, 500-Year Floodplain, Fog, Dam Flood
City Well	E. Ash and Hester	\$130,260	Earthquake, 500-Year Floodplain, Dam Flood, Fog
City Well	Front and Camelia	\$130,260	Earthquake, 500-Year Floodplain, Fog
City Well	Matthew and Walnut	\$775,580	Earthquake, 500-Year Floodplain, Fog
City Well	N. Farmersville Boulevard at Veterans Park	\$178,160	Earthquake, 500-Year Floodplain, Dam Flood, Fog
City Well	N. Farmersville Boulevard south of Noble	\$136,660	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Well	W. Ash and Matthew	\$152,960	Earthquake, 100-Year Floodplain, Fog, Dam Flood
Corporate Yard	873 S. Farmersville Boulevard	\$673,400	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Farmersville Community Center	623 N. Avery	\$3,402,800	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Future PD/Fire Parcel	Front west of Farmersville Boulevard	\$450,000	Earthquake, 100-year floodplain, Fog, Dam Flood
Jennings Park	N. Linnell Avenue and W. Ash Street	Unknown	Earthquake, 100-Year Floodplain, Fog, Dam Flood
Liberty Park	W. Teddy Street	\$168,797	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Old City Hall	145 E. Front	\$721,821	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Old Fire Station	829 N. Magnolia	\$203,800	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Old Police Department	147 E. Front	\$251,000	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Riverbank Park	Oakland and Farmersville Boulevard	\$5,519	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Roys Park	S. Farmersville Boulevard and 0.3 Mi south of E. Oakland Street	\$98,800	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Sewer Lift Station	Oakview and Ash	\$332,800	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Petunia and Ventura	\$234,900	Earthquake, 100-Year Floodplain, Fog, Dam Flood
Sewer Lift Station	Sandy and Yew	\$276,800	Earthquake, 500-Year Floodplain, Fog, Dam Flood
Sewer Plant	dirt extension of Virginia South of Qualls	\$799,250	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Veterans Park	Farmersville Boulevard and Citrus	\$505,766	Earthquake, 100-Year Floodplain, Fog, Dam Flood
911 Building	175 Front St	\$8,200	Earthquake, 500-Year Floodplain, Fog, Dam Flood

Critical Facilities: The City has identified the following infrastructure in **Table C-3** as critical facilities:

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Table C-3: Farmersville Critical Facilities		
Facility	Address	Value
City Bridge #1	0.2 Mi E. Of Rd 164	Unknown
City Bridge #2	Between Larry Street and Costner Street	Unknown
City Bridge #3	0.15 Mi south of Avenue 280	Unknown
City Bridge #4	N. Dwight Street and Oak View Avenue	Unknown
City Hall	909 W. Visalia Road	\$4,938,700
City Well	873 S. Farmersville Boulevard	\$138,060
City Well	E. Ash and Hester	\$130,260
City Well	Front and Camelia	\$130,260
City Well	Matthew and Walnut	\$775,580
City Well	N. Farmersville Boulevard at Veterans Park	\$178,160
City Well	N. Farmersville Boulevard south of Noble	\$136,660
City Well	W. Ash and Matthew	\$152,960
Corporate Yard	873 S. Farmersville Boulevard	\$673,400
Farmersville Community Center	623 N. Avery	\$3,402,800
Sewer Lift Station	Oakview and Ash	\$332,800
Sewer Lift Station	Petunia and Ventura	\$234,900
Sewer Lift Station	Sandy and Yew	\$276,800
Sewer Plant	dirt extension of Virginia South of Qualls	\$799,250

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the City by evaluating the inventory of City owned existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the City was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State — January 1, 2016/2017. The population is estimated to be 24,657 in an area of 2.36 square miles. The estimate is 2,726 residential units with a 2016 median value of \$136,869. The most common employment sectors for those who live in Farmersville are agriculture, retail trade, and manufacturing.

Major industrial manufacturers with operations in Farmersville include Cemex, Dunns Sand, and National Raisin Company which operates a fruit dehydrator in the city. La Mejor del Valle tortilla factory, a manufacturer of Mexican food products, is headquartered in Farmersville. The city also hosts a number of major chain stores and restaurants, including McDonald's, Jack-In-The-Box, Subway Sandwich Shop, Taco Bell, and Family Dollar stores as well as AutoZone, Napa, and O'Reilly's auto parts stores.

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Economic Risks

The economy of Farmersville is largely based on agriculture and food production. The City serves mostly as a commuter town with many residents having to travel to larger population centers to seek employment. Local commerce is composed of mostly small, family-owned businesses.

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table C-4** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

Table C-4: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Dam Inundation	<p><u>Impacts:</u> Dam inundation is a particularly extensive hazard to the City. Both Terminus and Success Dams may inundate Farmersville resulting in an overall potential inundation area of the entire City.</p> <p><u>Costs:</u> A rapid failure of Success or Terminus Dam would result in catastrophic loss of life and injury, and property loss. Map B-6 depicts the potential footprint for dam inundation. Specifics of the inundation curves are contained in the Dam Emergency Action Plans which are a limited distribution documents. The potential injury and death from a short notice dam failure could be in the 1,000s. Total losses within the Visalia jurisdiction could exceed \$100,000,000.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its needs. During prolonged draughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p>

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	<p><u>Costs:</u> Potential costs from draught to the City and its communities are difficult to quantify and are dependent upon draught duration and severity. In addition to increased costs for water, prolonged draught may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the City's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p> <p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Flood	<p><u>Impacts:</u> Flooding occurs in the City during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding.</p> <p><u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$100,000,000. Flood from the failure of Terminus Dam could destroy much of the City.</p>

Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Farmersville:

- Climate Change
- Dam Inundation
- Drought
- Extreme heat
- Flood

These hazards which may impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, these are hazards that represent vulnerabilities to infrastructure. Specifically, flooding from a failure of Terminus Dam would result in catastrophic damage to the entire city and surrounding agriculture lands. Additional flooding hazards, particularly from Deep Creek, represent critical vulnerabilities. Over 40% of the population resides within the 100-year flood zone and nearly 60% reside within the 500-year flood zone. Other hazards present vulnerabilities but to a lesser extent. Mitigation action 1 in **Table C-11** was developed to address this issue.

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C.4 CAPABILITIES ASSESSMENT

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's “existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.”

Elements

C1. Does the plan document the jurisdiction’s existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The reason for conducting a capability assessment is to identify Farmersville’s capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of the City’s capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management practices and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the City. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

Tables C-5 through C-8 provide a list of the City’s capabilities.

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Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table C-5 Farmersville Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Plan 2002	<p>The City's General Plan provides a policy base to guide future growth within the City. It was created by planners, engineers and technical staff with knowledge of land development, land management practices, as well as human-caused and natural hazards. The General Plan:</p> <ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. <p>Applies the approved plans, policies, code provisions, and other regulations to proposed land uses.</p> <p>The MJLHMP may be adopted as part of the Safety Element by the City Counsel. As the Safety Element is updated, revised hazard analysis from the MHLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	All	No requires update	Planning
California Building Code Enforcement	The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California including housing, public buildings and maintenance facilities. Improved safety, sustainability, maintaining consistency, new technology and construction methods, and	Earthquake, Fire, Floods, Severe winter storm/high winds		Regulatory

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Table C-5 Farmersville Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<p>reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.</p> <p>California's building codes are published in their entirety every three (3) years. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle. The California Seismic Safety Commission provides access to an array of regulatory and advisory information at: http://www.seismic.ca.gov/cog.html</p>			
Capital Improvement Program (CIP)	<p>The City's CIP provides a foundation and planning tool to assist in the orderly acquisition of municipal facilities and to assure that service needs for the future are met. The CIP provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.</p> <p>The MJLHMP will be used to select potential projects for the CIP. As the CIP is updated, additional mitigation measures will be analyzed and included in the Farmersville section of the MJLHMP. Funding for CIP projects identified in the MJLHMP will be reviewed for mitigation grant program eligibility.</p>	Dam Failure, Earthquake, Fire, Floods, Landslides, Levee failure, Severe winter storm/high winds	Ongoing	Planning
Tulare County Municipal Service Review (MSR)	<p>MSRs are intended to provide a comprehensive analysis of service provision by each of the special districts and other service providers within the legislative authority of the (LAFCo) of a city. This analysis focuses on service providers within the City of Farmersville and makes determinations in each area of evaluation. The MSR considers and makes recommendations based on the following information:</p> <ul style="list-style-type: none"> • Present and planned land uses in the area. • Present and probable need for services in the area. • Present ability of each service provider to provide necessary services. 	All		Planning

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Table C-5 Farmersville Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<ul style="list-style-type: none"> The fiscal, management, and structural health of each service provider. The existence of any social or economic communities of interest in the area. 			
City Code of Ordinances	<p>The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; to regulate and control the demolition of all buildings and structures, and for related purposes.</p> <p>The MJLHMP will provide both hazard descriptions and mitigation actions that may address energy conservation, fire protection and development in hazard prone areas. The maps of Farmersville related hazards will be used to augment other mapping products to protect public health and safety when updating City Code.</p>	Earthquake, Fire, Flooding,		Regulatory
1989 Storm Drain Master Plan	<p>Identifies remedial work necessary to bring the system up to current design standards, and additional systems to accommodate future development. The Community Infrastructure Study identifies the more serious problem areas, and suggests solutions. With regard to storm drainage improvements, the Community Infrastructure Study identifies one "urgent priority" improvement, one "high priority" improvement, and several medium and low priority projects.</p> <p>As the Storm Drain Master Plan is update, flooding mitigation measures in the MJLHMP Farmersville Annex will be considered for inclusion as improvement projects. These include Farmersville mitigation action 1.</p>	Flooding		Planning

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Table C-5 Farmersville Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
1993 Water System Master Plan	Evaluated the adequacy and reliability of the City water supply system by determining if the system had reliable standby capacity and adequate flow capacity.	Drought		Planning

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Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table C-6: Farmersville Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
City Public Works Department	Maintains and operates a wide range of local equipment and facilities as well as provides assistance to members of the public. Services include providing sufficient potable water, reliable waste water services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.	All		Technical
Procurement Department	Provides a full range of municipal financial services, administers several licensing measures, and functions as the plan participant's Procurement Services Manager.	All		Technical
City Fire Department	The City of Farmersville currently has four full time firefighters that operates the single fire station in the City. The remaining fire rescue crew consists of 25 volunteers.	All		Technical

Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table C-7: Farmersville Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Fund	Program operations and specific projects.	All		Financial, Financial Services Department

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Education and Outreach: These capabilities include programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

Table C-8: Farmersville Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach
Farmersville Website http: www.cityoffarmersville-ca.gov and other social media	Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts. The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.	All		Education and Outreach

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C.5 MITIGATION STRATEGY

Table C-9 lists the City specific mitigation actions from the 2011 Plan and provides their status.

Table C-9: Farmersville-Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
2	Y	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	A, B, C, D, E	Not Applicable	City Planning Dept.	Ongoing – Mitigation Action 2 in 2017 MJLHMP
8	Y	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	A, B, C, D	Unknown	Enforcement	Ongoing – Mitigation Action 3 in 2017 MJLHMP
10	Y	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or DWR.	A, B, C, D, E	Unknown	Enforcement	Ongoing – Mitigation Action 4 in 2017 MJLHMP

Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

All of the City's mitigation strategies from the 2011 HMP are still relevant to this update. **Table C-10** contains an updated set of potential mitigation strategies for new Plan. These mitigation strategies were derived from numerous sources including the General Plan, City Code, Capital Improvement Plan and input from the public and stakeholders.

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Table C-10: Farmersville – Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the Tulare County MJLHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
6	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
7	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or state responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
9	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.

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10	Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
11	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	FL	Mit.
12	Increase participation in the NFIP by entering the Community Rating System program through which enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
13	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
14	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
15	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
16	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
17	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
18	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
19	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
20	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.

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21	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.
22	Build upon previously funded restoration projects such as Deep Creek to further restore Deep Creek and other waterways by conducting vegetation management and channel maintenance to reduce the potential for flooding.	FL	Mit.

A list of mitigation actions was selected from the mitigation strategies. **Table C-11** provides the mitigation 2017 MJLHMP actions for the City. New priorities for mitigation actions are listed in the table.

Table C-11: Farmersville - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Build upon previously funded restoration projects such as Deep Creek to further restore Deep Creek and other waterways by conducting vegetation management and channel maintenance to reduce the potential for flooding.	Public Works	Unknown	High	Within 1 year
2	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Unknown	Medium	5 or more years
3	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	Development	Unknown	High	5 or more years
4	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or DWR.	Development	Unknown	High	2-5 years

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. In Farmersville, these other planning documents and process include the General Plan Update, the City Code zoning ordinances and various infrastructure master plans. The term incorporated in planning terms means that the HMP and the other plans have similar community goals and policies, that they advocate similar land use patterns, and they are consistent in their guidance

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of direction and rate of growth. As other plans are updated or created, the HMP should be used as guidance.

Many of the plans listed in the Capabilities Assessment mentioned in Section C.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Farmerville Annex into the Health and Safety Element of the City's General Plan.
- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances
- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices
- Resource for developing and/or updating emergency operations plans, emergency response plans, etc.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate. Specific incorporation of the Plan risk assessment elements into the natural resources and safety elements of each jurisdictions' General Plans (County comprehensive plan) and development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

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Annex D City of Lindsay

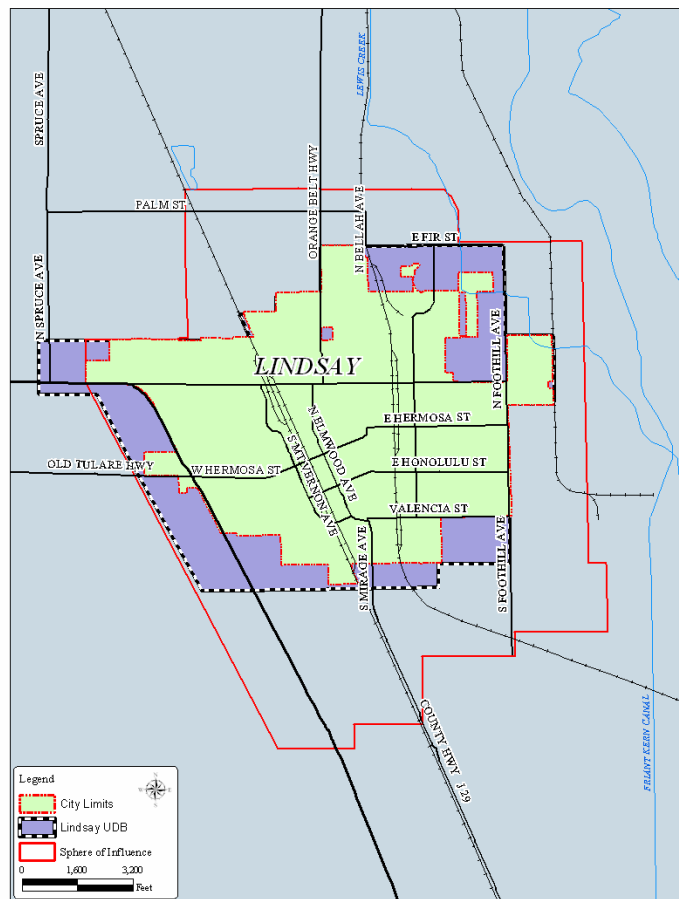
The City of Lindsay was founded in 1889 and incorporated in 1910. The City provides the following services:

- Public safety (police and fire protection, ambulance)
- Highways and streets
- Wastewater collection, treatment, and disposal
- Domestic water
- Storm drainage

The City contracts for solid waste collection and disposal.

Figure D-1 provides a map of Lindsay.

Figure D-1: Lindsay Map



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D.1 Community Profile

Geography and Climate: The city has a total area of 2.6 square miles. The City is relatively flat with an elevation of approximately 387 feet above sea level. Lindsay's climate can be described as dry Mediterranean. The summers are hot and dry, and winters are characterized by moderate temperatures and light precipitation. Temperatures and rainfall for Lindsay are typical of that of the rest of the valley floor portion of the County.

Government: Lindsay operates as a council-manager form of municipal government which is comprised of five council members serving four-year overlapping terms. The mayor is elected separately.

Population and Demographics: The 2010 U.S. Census reported that Lindsay had a population of 11,768. The population density was 4,509.4 people per square mile (1,741.1/km²). The racial makeup of Lindsay was 6,480 (55.1%) White; 85 (0.7%) African American; 128 (1.1%) Native American; 267 (2.3%) Asian; 4 (0.0%) Pacific Islander; 4,367 (37.1%) from other races; and 437 (3.7%) from two or more races. Hispanic or Latino of any race were 10,056 persons (85.5%). The Census reported that 11,672 people (99.2% of the population) lived in households, no one (0%) lived in non-institutionalized group quarters, and 96 people (0.8%) were institutionalized.

There were 3,014 households, out of which 1,890 (62.7%) had children under the age of 18 living in them, 1,719 (57.0%) were opposite-sex married couples living together, 578 (19.2%) had a female householder with no husband present, 233 (7.7%) had a male householder with no wife present. There were 242 (8.0%) unmarried opposite-sex partnerships, and 19 (0.6%) same-sex married couples or partnerships. 401 households (13.3%) were made up of individuals and 210 (7.0%) had someone living alone who was 65 years of age or older. The average household size was 3.87. There were 2,530 families (83.9% of all households); the average family size was 4.21.

Housing: There were 3,193 housing units at an average density of 1,223.5 per square mile, of which 1,526 (50.6%) were owner-occupied, and 1,488 (49.4%) were occupied by renters. The homeowner vacancy rate was 2.0%; the rental vacancy rate was 6.2%. 5,909 people (50.2% of the population) lived in owner-occupied housing units and 5,763 people (49.0%) lived in rental housing units.

Economy: Lindsay serves primarily as a bedroom town. Local commerce is composed of mostly small, family-owned businesses. The economy of Lindsay is largely based on agriculture and food production.

Land use: Lindsay is located along State Highway 65 approximately midway between the community of Strathmore and the City of Lindsay (approximately 5 miles north of Strathmore and 7 miles south of Exeter).

Major transportation routes serving Lindsay include State Highway 65, State Highway 137, State Route 63, State Highway 99, and State Highway 198. Lindsay's close vicinity to these major transportation routes provides an attractive location for industrial activity, and trucking related operations. Lindsay has reached a threshold where its greatest challenge is to attract and sustain economic growth that will be beneficial to its citizens, while enhancing the physical and cultural character of the community. While residents of

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Lindsay enjoy the slow pace of a small rural community, the City has aggressively pursued economic development opportunities through new industrial and commercial projects.

The Lindsay planning area is dominated by residential, commercial and industrial use, with supporting public and semi-public facilities such as schools, parks, government offices, churches, hospital and public utilities. The City is surrounded by agricultural land which is mostly devoted to orange and olive groves, with some irrigated pasture and field crops to the north. In comparison with other cities in Tulare County, the Lindsay urban area is compact with relatively little developed area within the unincorporated fringe.

Development trends: The City plans for future growth through the implementation of policies and standards set forth in its General Plan which states that development is to occur only within the incorporated City Limits with certain exceptions. **Table D-1** provides a projection for population growth in Lindsay.

Table D -1: Lindsay Historic and Projected Population Growth			
Year	Tulare County	Lindsay	% of Total County Population
1990	311,921	8,338	2.7%
2000	368,021	10,297	2.8%
2010	442,179	11,768	2.7%
2025	594,719	16,391	2.8%
2030	650,466	18,098	2.8%

Notes: 1) 1990 to 2010 population data based on U.S. Census Data

2) 2025 to 2030 population projection based in 1990 to 2010 average annual growth rates

Development in hazard prone areas:

Because population growth was less than two percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the County. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire City. Development in the City, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

D.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: Lindsay faces many of the hazards that are present in the County. **Table D-2** below provides a summary of hazards. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include dam failure, wild fire, earthquake liquefaction - subsidence, civil unrest and terrorism/cyber terrorism.

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Table D-2: Lindsay Summary of Hazards

Hazard	Frequency	Extent	Magnitude	Significance	Location
Climate Change	Highly	Extensive	Catastrophic	High	Entire City
Drought	Likely	Extensive	Catastrophic	High	Entire City
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Entire City
Flood	Likely	Extensive	Critical	High	Map B-12 depicts
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire City
Extreme Heat	Highly	Extensive	Critical	High	Entire City
Fire	Unlikely	Limited	Limited	Low	Entire City
Fog	Likely	Extensive	Limited	Low	Entire City
Hazardous Materials	Likely	Limited	Limited	Low	Entire City
Levee Failure	Occasional	Limited	Limited	Medium	Entire City
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire City
Severe Storms and High Winds	Highly Likely	Significant	Limited	Medium	Entire City

Guidelines for Hazard Rankings

Frequency of Occurrence:

Highly Likely	Near 100% probability in next year
Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

Potential Magnitude:

Catastrophic	More than 50% of area affected
Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

Significance (subjective):

low, medium, high

D.3 RISK ASSESSMENT

The intent of this section is to assess Lindsay's vulnerability separate from that of the Operational Area as a whole, which has already been assessed in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole **see Section 5** of the base plan.

Infrastructure and Values at Risk:

The following data was provided by the Director of City Services. This data should only be used as an estimate to determine overall values in the City as the information has some limitations. Generally, the land itself is not a loss. **Table D-3** shows the 2016 inventory for the City.

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Table D-3: Lindsay 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
CCPI Discharge Line-3 booster pumps	23620 Road 180	\$1,500,000	Earthquake, 500-Year Floodplain, Dam Flood, Fog
City Park	Parkside Avenue and E. Alameda Street	\$3,000,000	Earthquake, 500-Year Floodplain, Fog
City Services Department	150 N. Mirage Avenue	\$150,000	Earthquake, Fog
F.M. Moore Building	Honolulu Street	\$20,000	Earthquake, 500-Year Floodplain, Fog
Friant Kern Canal	E. Honolulu Street	\$500,000	Earthquake, 500-Year Floodplain, Fog
Harvard Park	N. Harvard Avenue	\$500,000	Earthquake, 100-Year Floodplain, Fog
Harvard Ponding Basin	N. Harvard Avenue and E. Tulare Rd	\$500,000	Earthquake, 100-Year Floodplain, Fog
Hickory Lift Station	Hickory/Tulare Road	\$250,000	Earthquake, Fog
Kaku Park	N. Olive Avenue and W. Samoa Street	\$200,000	Earthquake, Fog
Lindsay Chamber of Commerce/Sierra Vista Plaza	133 W. Honolulu Street	\$150,000	Earthquake, Fog
Lindsay City Hall	251 E. Honolulu Street	\$1,000,000	Earthquake, Fog
Lindsay Corporation Yard	476 N. Mount Vernon Avenue	\$250,000	Earthquake, Fog
Lindsay Department of Public Safety	185 N. Gale Hill Avenue	\$250,000	Earthquake, Fog
Lindsay Historical Museum	Gale Hill Avenue	\$100,000	Earthquake, 500-Year Floodplain, Fog
Lindsay Library	157 N. Mirage Avenue	\$500,000	Earthquake, Fog
Lindsay Library	157 N. Mirage Avenue	\$500,000	Earthquake, Fog
Lindsay Municipal Golf Course	801 N. Elmwood Avenue	\$500,000	Earthquake, 500-Year Floodplain, Fog
Lindsay School District Transportation Yard	250 N. Harvard Avenue	\$1,000,000	Earthquake, 100-Year Floodplain, Fog
Lindsay Sewer Treatment Facility	23611 Rd. 196	\$30,000,000	Earthquake, Fog
Lindsay Wellness Center/Aquatic Center	740 N. Sequoia Avenue	\$2,500,000	Earthquake, 500-Year Floodplain, Fog
Lindsay/Strathmore Memorial Building	775 N. Elmwood Avenue	\$350,000	Earthquake, 500-Year Floodplain, Fog
Mariposa Ponding Basin	10 Acres Mariposa/Hwy 65	\$150,000	Earthquake, Fog
Mason House Museum and Gallery	147 N. Gale Hill Avenue	\$125,000	Earthquake, Fog
McDermont Field House & Sports Facility	365 N. Sweetbrier Avenue	\$18,000,000	Earthquake, Fog
McGregor building	130 N. Sweetbrier Avenue	\$75,000	Earthquake, Fog
Mt. Whitney Building	181 E. Honolulu Street	\$500,000	Earthquake, Fog
Old Jail	S. Sweetbrier Avenue and W. Honolulu Street	\$5,000	Earthquake, Fog

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Table D-3: Lindsay 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Olive Bowl Baseball stadium	S. Olive Avenue and W. Apia Street	\$700,000	Earthquake, Fog
Parking lot	E. Elmwood Avenue and E. Honolulu Street	\$100,000	Earthquake, Fog
Lindsay Community Center	911 N. Parkside Avenue	\$250,000	Earthquake, 500-Year Floodplain, Fog
Sequoia Lift Station	Sequoia/Hickory	\$500,000	Earthquake, Fog
Sequoia Ponding Basin	Sequoia Avenue and E. Alameda Street	\$250,000	Earthquake, 500-Year Floodplain, Fog
Sweet Brier Plaza	195 N Sweetbriar Avenue	\$2,000,000	Earthquake, Fog
Well # 11	W. Mariposa Street	\$1,500,000	Earthquake, Fog
Well # 14	Avenue 242	\$1,500,000	Earthquake, Fog
Well # 15	Rd 188	\$2,000,000	Earthquake, Fog

Critical Facilities: The City has identified the following infrastructure in **Table D-4** as critical facilities:

Table D-4: Lindsay Critical Facilities		
Facility	Address	Value
CCPI Discharge Line-3 booster pumps	23620 Road 180	\$1,500,000
City Services Department	150 N. Mirage Avenue	\$150,000
Friant Kern Canal	E. Honolulu Street	\$500,000
Harvard Ponding Basin	N. Harvard Avenue and E. Tulare Rd	\$500,000
Hickory Lift Station	Hickory/Tulare Road	\$250,000
Lindsay City Hall	251 E. Honolulu Street	\$1,000,000
Lindsay Corporation Yard	476 N. Mount Vernon Avenue	\$250,000
Lindsay Department of Public Safety	185 N. Gale Hill Avenue	\$250,000
Lindsay School District Transportation Yard	250 N. Harvard Avenue	\$1,000,000
Lindsay Sewer Treatment Facility	23611 Rd. 196	\$30,000,000
Lindsay Wellness Center/Aquatic Center	740 N. Sequoia Avenue	\$2,500,000
Mariposa Ponding Basin	10 Acres Mariposa/Hwy 65	\$150,000
Lindsay Community Center	911 N. Parkside Avenue	\$250,000
Sequoia Lift Station	Sequoia/Hickory	\$500,000
Sequoia Ponding Basin	Sequoia Avenue and E. Alameda Street	\$250,000
Well # 11	W. Mariposa Street	\$1,500,000
Well # 14	Avenue 242	\$1,500,000

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Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the City by evaluating the inventory of City owned existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the City was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State—January 1, 2016/2017. The population is estimated to be 12,980 in an area of 2.6 square miles. The estimate is 3,575 residential units with a 2016 median value of \$134,559. The most common employment sectors for those who live in Lindsay are agriculture, retail trade, and manufacturing.

Economic Risks

The economy of Lindsay is largely based on agriculture and food production. The City serves mostly as a commuter town with many residents having to travel to larger population centers to seek employment. Local commerce is composed of mostly small, family-owned businesses.

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table D-5** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

Table D-5: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>

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Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its needs. During prolonged droughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from drought to the City and its communities are difficult to quantify and are dependent upon drought duration and severity. In addition to increased costs for water, prolonged drought may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the City's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p> <p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Flood	<p><u>Impacts:</u> Flooding occurs in the City during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding.</p> <p><u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$100,000,000.</p>

Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Lindsay:

- Climate Change
- Drought
- Extreme heat
- Flood

These hazards which may impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, these are hazards that represent vulnerabilities to infrastructure.

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D.4 CAPABILITIES ASSESSMENT

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's “existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.”

Elements

C1. Does the plan document the jurisdiction’s existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The reason for conducting a capability assessment is to identify Lindsay’s capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of the City’s capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management practices and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the City. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

Tables D-6 through D-9 provide a list of the City’s capabilities.

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Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table D-6 Lindsay Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Plan	<p>The City's General Plan provides a policy base to guide future growth within the City. It was created by planners, engineers and technical staff with knowledge of land development, land management practices, as well as human-caused and natural hazards. The General Plan:</p> <ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. <p>Applies the approved plans, policies, code provisions, and other regulations to proposed land uses.</p> <p>The MJLHMP may be adopted as part of the Safety Element by the City Counsel. As the Safety Element is updated, revised hazard analysis from the MHLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	All	No requires update	Planning
California Building Code Enforcement	The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California including housing, public buildings and maintenance facilities. Improved safety, sustainability, maintaining consistency, new technology and construction methods, and	Earthquake, Fire, Floods, Severe winter storm/high winds		Regulatory

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Table D-6 Lindsay Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<p>reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.</p> <p>California's building codes are published in their entirety every three (3) years. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle. The California Seismic Safety Commission provides access to an array of regulatory and advisory information at: http://www.seismic.ca.gov/cog.html</p>			
Capital Improvement Program (CIP)	<p>The City's CIP provides a foundation and planning tool to assist in the orderly acquisition of municipal facilities and to assure that service needs for the future are met. The CIP provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.</p> <p>The MJLHMP will be used to select potential projects for the CIP. As the CIP is updated, additional mitigation measures will be analyzed and included in the Lindsay section of the MJLHMP. Funding for CIP projects identified in the MJLHMP will be reviewed for mitigation grant program eligibility.</p>	Dam Failure, Earthquake, Fire, Floods, Landslides, Levee failure, Severe winter storm/high winds		Planning
Tulare County Municipal Service Review (MSR)	<p>MSRs are intended to provide a comprehensive analysis of service provision by each of the special districts and other service providers within the legislative authority of the (LAFCo) of a city. This analysis focuses on service providers within the City of Lindsay and makes determinations in each area of evaluation. The MSR considers and makes recommendations based on the following information:</p> <ul style="list-style-type: none"> • Present and planned land uses in the area. • Present and probable need for services in the area. 	All		Planning

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Table D-6 Lindsay Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<ul style="list-style-type: none"> • Present ability of each service provider to provide necessary services. • The fiscal, management, and structural health of each service provider. • The existence of any social or economic communities of interest in the area. 			
City Code of Ordinances	<p>The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; to regulate and control the demolition of all buildings and structures, and for related purposes.</p> <p>The MJLHMP will provide both hazard descriptions and mitigation actions that may address energy conservation, fire protection and development in hazard prone areas. The maps of Lindsey related hazards will be used to augment other mapping products to protect public health and safety when updating City Code.</p>	Earthquake, Fire, Flooding,		Regulatory

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Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table D-7: Lindsay Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
City Public Works Department	Maintains and operates a wide range of local equipment and facilities as well as provides assistance to members of the public. Services include providing sufficient potable water, reliable waste water services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.	All		Technical
Procurement Department	Provides a full range of municipal financial services, administers several licensing measures, and functions as the plan participant's Procurement Services Manager.	All		Technical
City Fire Department	The City of Lindsay currently has three full time firefighters that operate the single fire station in the City. The remaining fire rescue crew consists of volunteers.	All		Technical

Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table D-8: Lindsay Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Fund	Program operations and specific projects.	All		Financial, Financial Services Department

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Education and Outreach: The capabilities include programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

Table D-9 Lindsay Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach
Lindsay Website http://www.lindsay.ca.us/ and other social media	Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.	All		Education and Outreach

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D.5 MITIGATION STRATEGY

Table D-10 lists the City specific mitigation actions from the 2011 Plan and provides their status.

Table D-10: Porterville-Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
3	Y	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	A,D,E	Public Safety Building	Police/Fire	Ongoing – Mitigation Action 1 in 2017 MJLHMP
15	Y	Develop a free annual tree chipping and tree pick-up day that encourages residents living in wind hazard areas to manage trees and shrubs at risk at risk to falling on nearby structures.	A,C,E	Not Applicable	Public Works	Ongoing – Mitigation Action 2 in 2017 MJLHMP
16	Y	Bolt down the roofs of critical facilities in wind gust hazard areas in order to prevent wind damage.	A,C,E	Unknown	Public Works	Ongoing – Mitigation Action 3 in 2017 MJLHMP

Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

All of the City's mitigation strategies from the 2011 HMP are still relevant to this update. **Table D-11** contains an updated set of potential City mitigation strategies for the new Plan. Mitigation strategies were derived from numerous sources including the General Plan, City Code, Capital Improvement Plan and input from the public and stakeholders.

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Table D-11: Lindsay – Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the City HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
6	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
7	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or State responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
9	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.
10	Reinforce City ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.

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11	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	FL	Mit.
12	Increase participation in the NFIP by entering the Community Rating System program through which enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
13	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
14	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
15	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
16	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
17	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
18	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
19	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
20	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.
21	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.

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A list of mitigation actions was selected from the mitigation strategies. **Table D-12** provides the mitigation 2017 MJLHMP actions for the City. New priorities for mitigation actions are listed in the table.

Table D-12: Lindsay - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	Public Works	Unknown	Medium	5 or more years
2	Develop a free annual tree chipping and tree pick-up day that encourages residents living in wind hazard areas to manage trees and shrubs at risk at risk to falling on nearby structures.	Public Works / Parks and Rec	Unknown	Medium	5 or more years
3	Bolt down the roofs of critical facilities in wind gust hazard areas in order to prevent wind damage.	All	Unknown	High	2-5 years

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. In Lindsay, these other planning documents and process include the General Plan Update, the City Code zoning ordinances and various infrastructure master plans. The term incorporated in planning terms means that the HMP and the other plans have similar community goals and policies, that they advocate similar land use patterns, and they are consistent in their guidance of direction and rate of growth. As other plans are updated or created, the HMP should be used as guidance.

Many of the plans listed in the Capabilities Assessment mentioned in Section D.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Lindsay Annex into the Health and Safety Element of the City's General Plan.
- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances
- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices
- Resource for developing and/or updating emergency operations plans, emergency response plans, etc.

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The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate. Specific incorporation of the Plan risk assessment elements into the natural resources and safety elements of each jurisdictions' General Plans (County comprehensive plan) and development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

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Annex E City of Porterville

The City of Porterville, founded in 1849 and incorporated in 1902, is located in the central southern area of Tulare County in the heart of the agriculturally rich San Joaquin Valley. The City became a Charter City in 1926. In the foothills above Porterville is the man-made Lake Success. Porterville's population has grown as it annexed nearby unincorporated areas. The City provides the following services:

- Public safety (police and fire protection, ambulance)
- Highways and streets
- Wastewater collection, treatment, and disposal
- Domestic water
- Storm drainage
- Solid waste collection and disposal.

E.1 Community Profile

Geography and Climate: The city has a total area of 17.7 square miles. Porterville is located on the Tule River at the base of the western foothills of the Sierra Nevada at an elevation of 455 feet. The City is 165 miles north of Los Angeles and 171 miles east of the Pacific Coast. The City has a strategic central location to major markets and a ready access to major transportation routes. Porterville's climate can be described as dry Mediterranean. The summers are hot and dry, and winters are characterized by moderate temperatures and light precipitation. Temperatures and rainfall for Porterville are typical of that of the rest of the valley floor portion of the County. The City consistently suffers from year-round air pollution and air quality that is among the worst in the U.S. because of both geographic conditions, dust from agriculture and vehicle emissions.

Government: Porterville operates as a council-manager form of municipal government which is comprised of five council members serving four-year overlapping terms. The mayor is elected separately.

Population and Demographics: The City's July 2014 population was estimated at 55,466. The 2010 U.S. Census reported that Porterville had a population of 54,165. The population density was 3,076.3 people per square mile. The racial makeup of Porterville was 31,847 (58.8%) White; 673 (1.2%) African American; 1,007 (1.9%) Native American; 2,521 (4.7%) Asian; 64 (0.1%) Pacific Islander; 15,482 (28.6%) from other races; and 2,571 (4.7%) from two or more races. Hispanic or Latino of any race were 33,549 persons (61.9%). The Census reported that 53,018 people (97.9% of the population) lived in households, 207 people (0.4%) lived in non-institutionalized group quarters, and 940 people (1.7%) were institutionalized.

There were 15,644 households, out of which 8,177 (52.3%) had children under the age of 18 living in them, 8,032 (51.3%) were opposite-sex married couples living together, 2,962 (18.9%) had a female householder with no husband present, 1,315 (8.4%) had a male householder with no wife present. There were 1,424 (9.1%) unmarried opposite-sex partnerships, and 115 (0.7%) same-sex married couples or partnerships. 2,679 households (17.1%) were made up of individuals and 1,193 (7.6%) had someone living alone who was 65 years of age or older. The average household size was 3.39. There were 12,309 families (78.7% of all households); the average family size was 3.78.

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Housing: There were 16,734 housing units at an average density of 946.5 per square mile, of which 8,966 (57.3%) were owner-occupied, and 6,678 (42.7%) were occupied by renters. The homeowner vacancy rate was 2.9%; the rental vacancy rate was 6.3%. 30,016 people (55.4% of the population) lived in owner-occupied housing units and 23,002 people (42.5%) lived in rental housing units.

Economy: The backbone of Porterville's economy is agriculture with manufacturing adding balance to the economy. Industry has also become a significant factor in the development of the community. The Wal-Mart Distribution Center, Beckman Coulter Inc., and Royalty Carpeting are major industries located in the City. Continued industrial diversification is being encouraged. The top employers in the city are:

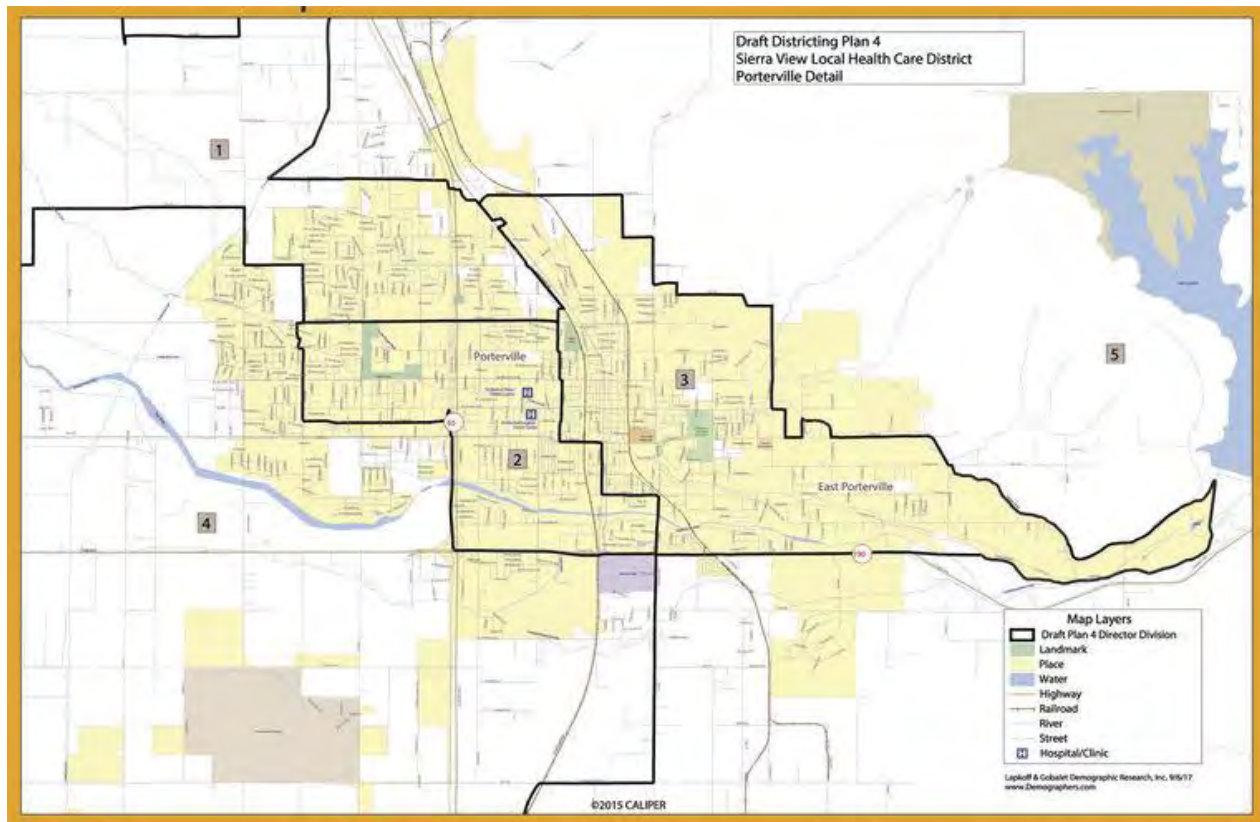
1. Porterville Developmental Center	1,560	(employees)
2. Porterville Unified School District	1,475	
3. Walmart	1,359	
4. Sierra View District Hospital	888	
5. Eagle Mountain Casino	512	
6. City of Porterville	504	
7. Foster Farms	450	
8. Burton School District	436	
9. U.S. Forest Service	371	
10. Beckman Coulter	212	

Land use: Porterville is primarily a mix of urban and rural areas with a growing population. Over half of the land within the total land area was being used for agriculture and other rural uses (generally categorized as Agriculture/Rural/Conservation), 13 percent of the planning area is categorized as single family use, 10 percent was identified as vacant land. Other land uses such as commercial, retail, and industrial make up the balance. The City's available residential, industrial and commercial land base is currently building out and may in the future require additional areas for growth. Single-family housing construction in Porterville is likely to continue its growth despite several significant economic hardship cycles. The City population has grown steadily in the last two decades but has seen a decline in the last five years. The housing stock has also increased in the last ten years due to annexations of unincorporated islands.

Porterville's commercial development is centered in the downtown and along the Olive Avenue corridor, which traverses the central portion of the City in an east-west direction. Additional commercial development is located along the Highway 65, specifically in the vicinity of Henderson Avenue, Morton Avenue, and Olive Avenue. The City's industrial areas are located in the southwest quadrant of the City near the Porterville Municipal Airport, north and south of Highway 190, west of Plano Street, and northern part of the City along North Main Street. Schools and parks are scattered throughout the community, locating in neighborhoods that are experiencing a demand for these types of public facilities. **Figure E-1** provides a land use map of Porterville.

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Figure E-1: Porterville Map



Development trends: Historically Porterville experienced an average growth rate of 3.0 percent between 1990 and 2010. The recession and weak housing market in recent years has caused the annual growth rate to slow in the last four years to 0.7 % between 2010 and 2014. Historical population data and future projections were obtained from the U.S. Census Bureau, and the California Department of Finance. For analysis purposes, this data is compared to other source data relating to growth and population including the City's General Plan. Extrapolating the historical 1990-2010 growth rate of 3.0% would give the City a population of 97,828 or 15.5% of the county population in 2030. DOF released finalized population projections at the county level on January 31, 2013. If the City's share of County population continues to grow at the same level as between 1990 and 2010 (1.4%), the City's population share would be 15.1% of the County or 95,176. This would be an annual increase of 2.9%.

According to the 2008 Porterville General Plan Update, the City's population has grown at an average annual rate of 3.7 percent over a 30-year period. Buildout of the General Plan will accommodate a population of approximately 107,300 in the Planning Area. However, the City's population growth slowed to an average annual rate of 2.8 percent from 1990 to 2005. It is reasonable to assume that the City's population will continue to grow at an average annual rate between 2.5% and 3%.

Development in hazard prone areas:

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Because population growth was less than two percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the County. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

Updated dam inundation maps include a much larger area of the County. While little new development occurred in the expanded inundation zones, vulnerability to dam inundation increased substantially and now includes most of the most populace areas of the County. Updated dam inundation maps for the County and affected cities are included in **Appendix B**.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire City. Development in the City, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

E.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: Porterville faces many of the hazards that are present in the County. **Table E-1** below provides a summary of hazards. Porterville is one of the few incorporated areas in the County with an urban/wildland interface. Eastern portions of the City are in the High and Medium Fire Hazard Severity Zone. The City is also within two miles of Success Dam. Warning times for a dam failure are less than 10 minutes. Much of the western portions of the City are in the inundation zone with water depths exceeding 20 feet. A rapid failure of Success Dam would result in catastrophic loss of life and injury, and property loss. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include earthquake liquefaction - subsidence, civil unrest and terrorism/cyber terrorism.

Table E-1: Porterville Summary of Hazards					
Hazard	Frequency	Extent	Magnitude	Significance	Location
Climate Change	Highly	Extensive	Catastrophic	High	Entire City
Dam Failure	Unlikely	Extensive	Catastrophic	High	Map B-15 depicts
Drought	Likely	Extensive	Catastrophic	High	Entire City
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Entire City
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire City
Extreme Heat	Highly	Extensive	Critical	High	Entire City
Fire	Unlikely	Limited	Limited	Low	Entire City
Floods	Highly	Extensive	Critical	High	Map B-14 depicts
Fog	Likely	Extensive	Limited	Low	Entire City
Hazardous Materials	Likely	Limited	Limited	Low	Entire City
Landslide/Mudslide/Debris	Unlikely	Limited	Negligible	Low	Entire City
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire City
Severe Storms and High Winds	Highly Likely	Significant	Limited	Medium	Entire City
Wildfire	Unlikely	Limited	Limited	Low	Map B-13 depicts

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Frequency of Occurrence:

Highly Likely	Near 100% probability in next year
Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

Potential Magnitude:

Catastrophic	More than 50% of area affected
Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

Significance (subjective):

low, medium, high

E.3 RISK ASSESSMENT

The intent of this section is to assess Porterville's vulnerability separate from that of the Operational Area as a whole, which has already been assessed in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole see **Section 5** of the base plan.

Infrastructure and Values at Risk:

The following data was provided by the Director of City Services. This data should only be used as a guideline to overall values in the City as the information has some limitations. Generally, the land itself is not a loss. **Table E-2** shows the 2016 inventory for the City.

Table E-2: Porterville 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Fire Department Station 1	40 W. Cleveland Ave.	\$2,000,000.00	Earthquake, Dam Flood, Fog
Fire Department Station 2	500 N. Newcomb	\$2,000,000.00	Earthquake, Dam Flood, Fog
Police Department	350 N. "D" St.	\$2,000,000.00	Earthquake, Dam Flood, Fog
Public Safety Facility Police/Fire	980 S. Jaye Street	\$5,000,000.00	Earthquake, Dam Flood, Fog
Centennial Plaza	25 E. Thurman	\$2,400,000.00	Earthquake, Dam Flood, Fog
City Hall	291 N. Main Street	\$12,000,000.00	Earthquake, Dam Flood, Fog
Corporation Yard/Field Services	555 N. Prospect St.	\$2,500,000.00	Earthquake, Dam Flood, Fog
Heritage Center/Youth Center	256 E. Orange Ave.	\$250,000.00	Earthquake, Dam Flood, Fog
Porterville Library	41 W. Thurman Ave.	\$2,000,000.00	Earthquake, Dam Flood, Fog
Wastewater Treatment Facility	555 N. Prospect St.	\$20,000,000.00	Earthquake, Dam Flood, Fog
Porterville Convalescent Hospital	1100 W. Morton	Unknown	Earthquake, Dam Flood, Fog

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Table E-2: Porterville 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Porterville Developmental Center	26501 Ave. 140	Unknown	Earthquake, Dam Flood, Fog
Porterville Hemodialysis Facility	385 N. Pearson	Unknown	Earthquake, Dam Flood, Fog
Sierra Valley Rehab.	301 W. Putnam	Unknown	Earthquake, Dam Flood, Fog
Sierra View District Hospital	465 W. Putnam Ave.	Unknown	Earthquake, Dam Flood, Fog
Sierra View District Hospital Dialysis Center	283 N. Pearson	Unknown	Earthquake, Dam Flood, Fog
Sun Villa Rehab & Nursing Center	350 N. Villa	Unknown	Earthquake, Dam Flood, Fog
Valley Care Center	661 W. Poplar	Unknown	Earthquake, Dam Flood, Fog
Sewer Lift Station 01	930 W. Mulberry	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 02	Porter Rd. across From Porter BBQ	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 03	1131 N. Newcomb	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 04	Newcomb & North West Grand	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 05	Putnam & Mathew	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 06	South Jaye St. on S.E. side of River	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 07	Airport by Sludge Beds	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 08	Park & Success	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 09	Morton & Westwood	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 10	Poplar & "G" St. by Walmart D.C.	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 11	Mulberry & Mathew	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 12	OHV Park by BMX Track	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 13	459 N. Mathew	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 14	Newcomb & Date	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 15	Newcomb & S. River on S. Side of River	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 16	Mathew & Union	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 17	1850 W. Scranton Ave.	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 18	Westfield & Westwood	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 19	1193 N. Lime	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 20	207 B S. Westwood St.	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 21	487 S. Newcomb	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 22	2200 W. Forest Ave.	\$250,000.00	Earthquake, Dam Flood, Fog
Sewer Lift Station 23	East end of Edison Ct.	\$250,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0424, Porter Slough	"E" Street	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0046, Porter Slough	Main St.	\$8,000,000.00	Earthquake, Dam Flood, Fog

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Table E-2: Porterville 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Bridge #46C0076, Tule River/Poplar Ditch	Road 252 (Plano St.)	\$20,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0098, Tule River	Road 224 (Westwood)	\$12,500,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0099, Tule River	Road 244 (Jaye St.)	\$12,500,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0111, Porter Slough	Porter Rd.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0127, Porter Slough	Road 224 (Westwood)	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0168, Porter Slough	Prospect St.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0170, Porter Slough	Villa St.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0171, Porter Slough	W. Putnam Ave.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0172, Porter Slough	Plano St.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0173, Porter Slough	Leggett Dr.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0298, Porter Slough	Park Ave.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0299, Porter Slough	Conner St.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0424, Porter Slough	"E" Street	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0425, Porter Slough	Cottage St.	\$8,000,000.00	Earthquake, Dam Flood, Fog
Bridge #46C0444, Tule River	Main St.	\$10,000,000.00	Earthquake, Dam Flood, Fog
Porterville Municipal Airport	1893 S. Newcomb St.	\$20,000,000.00	Earthquake, Dam Flood, Fog
Transit Center	61 W. Oak	\$500,000.00	Earthquake, Dam Flood, Fog
SCE Rector Electrical Substation	95 N. Cottage		Earthquake, Dam Flood, Fog
The Gas Company Substation	West of Newcomb on Olive		Earthquake, Dam Flood, Fog
Airport 300K Tank	2200 W. Hope	\$375,000.00	Earthquake, Dam Flood, Fog
East Porterville 3MG Tank	785 N. Jasmine & Henderson alignment	\$3,750,000.00	Earthquake, Dam Flood, Fog
Scenic 310K Tank	1470 Highland Dr.	\$388,000.00	Earthquake, Dam Flood, Fog
Scenic 3MG Tank	1054 Highland Dr.	\$3,750,000.00	Earthquake, Dam Flood, Fog
Well 01A	Putnam east of 4th	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 03	Willow & "E"	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 04	Orange & "E"	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 06	437 W. Kanai	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 07	Orange & Western	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 08	"A" & Walnut	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 10	Mulberry & Hwy 65	\$2,000,000.00	Earthquake, Dam Flood, Fog

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Table E-2: Porterville 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Well 11	4th & Garden	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 12	892 W. Henderson	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 13	191 W. Poplar	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 15	Morton & "G"	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 16	Veterans Park (Henderson)	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 17	Tomah & Waukesha	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 18	Henderson & Belmont	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 19	Jaye & Tule River	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 20	Veterans Park (Newcomb)	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 21	Harrison & Hockett	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 22	Tomah & Newcomb	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 23	Union & Indiana	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 24	Taylor & Olive	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 25	Newcomb & Date	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 26	Indiana & Hwy 190	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 27	Jaye north of Gibbons	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 28	"F" & Gibbons	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 29	2250 W. Henderson	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well 31	Mathew & Orange	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well AP-01	Airport east of 30K Tank	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well AP-02	West St.	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well EP-05	Springville Dr. (Headgate)	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well L01	Tomah & Beverly	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well L05	Tomah & Salisbury	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well L07	Thurman & Cobb	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well L08	2107 White Chapel	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well R05	Newcomb & Forrest	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well R07	2006 W. Olive Ave.	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well R-11	Iris east of Magnolia	\$2,000,000.00	Earthquake, Dam Flood, Fog
Well R-12	Cedar north of Iris	\$2,000,000.00	Earthquake, Dam Flood, Fog

Critical Facilities: The City has identified the following infrastructure in **Table E-3** as critical facilities:

Table E-3: Porterville Critical Facilities		
Facility	Address	Value
Fire Department Station 1	40 W. Cleveland Ave.	\$2,000,000.00
Fire Department Station 2	500 N. Newcomb	\$2,000,000.00
Police Department	350 N. "D" St.	\$2,000,000.00
Public Safety Facility Police/Fire	980 S. Jaye Street	\$5,000,000.00
Centennial Plaza	25 E. Thurman	\$2,400,000.00

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Table E-3: Porterville Critical Facilities		
Facility	Address	Value
City Hall	291 N. Main Street	\$12,000,000.00
Corporation Yard/Field Services	555 N. Prospect St.	\$2,500,000.00
Heritage Center/Youth Center	256 E. Orange Ave.	\$250,000.00
Porterville Library	41 W. Thurman Ave.	\$2,000,000.00
Wastewater Treatment Facility	555 N. Prospect St.	\$20,000,000.00
Porterville Convalescent Hospital	1100 W. Morton	Unknown
Porterville Developmental Center	26501 Ave. 140	Unknown
Porterville Hemodialysis Facility	385 N. Pearson	Unknown
Sierra Valley Rehab.	301 W. Putnam	Unknown
Sierra View District Hospital	465 W. Putnam Ave.	Unknown
Sierra View District Hospital Dialysis Center	283 N. Pearson	Unknown
Sun Villa Rehab & Nursing Center	350 N. Villa	Unknown
Valley Care Center	661 W. Poplar	Unknown
Sewer Lift Station 01	930 W. Mulberry	\$250,000.00
Sewer Lift Station 02	Porter Rd. across From Porter BBQ	\$250,000.00
Sewer Lift Station 03	1131 N. Newcomb	\$250,000.00
Sewer Lift Station 04	Newcomb & North West Grand	\$250,000.00
Sewer Lift Station 05	Putnam & Mathew	\$250,000.00
Sewer Lift Station 06	South Jaye St. on S.E. side of River	\$250,000.00
Sewer Lift Station 07	Airport by Sludge Beds	\$250,000.00
Sewer Lift Station 08	Park & Success	\$250,000.00
Sewer Lift Station 09	Morton & Westwood	\$250,000.00
Sewer Lift Station 10	Poplar & "G" St. by Walmart D.C.	\$250,000.00
Sewer Lift Station 11	Mulberry & Mathew	\$250,000.00
Sewer Lift Station 12	OHV Park by BMX Track	\$250,000.00
Sewer Lift Station 13	459 N. Mathew	\$250,000.00
Sewer Lift Station 14	Newcomb & Date	\$250,000.00
Sewer Lift Station 15	Newcomb & S. River on S. Side of River	\$250,000.00
Sewer Lift Station 16	Mathew & Union	\$250,000.00
Sewer Lift Station 17	1850 W. Scranton Ave.	\$250,000.00
Sewer Lift Station 18	Westfield & Westwood	\$250,000.00
Sewer Lift Station 19	1193 N. Lime	\$250,000.00
Sewer Lift Station 20	207 B S. Westwood St.	\$250,000.00
Sewer Lift Station 21	487 S. Newcomb	\$250,000.00
Sewer Lift Station 22	2200 W. Forest Ave.	\$250,000.00
Sewer Lift Station 23	East end of Edison Ct.	\$250,000.00

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Table E-3: Porterville Critical Facilities		
Facility	Address	Value
Bridge #46C0424, Porter Slough	"E" Street	\$8,000,000.00
Bridge #46C0046, Porter Slough	Main St.	\$8,000,000.00
Bridge #46C0076, Tule River/Poplar Ditch	Road 252 (Plano St.)	\$20,000,000.00
Bridge #46C0098, Tule River	Road 224 (Westwood)	\$12,500,000.00
Bridge #46C0099, Tule River	Road 244 (Jaye St.)	\$12,500,000.00
Bridge #46C0111, Porter Slough	Porter Rd.	\$8,000,000.00
Bridge #46C0127, Porter Slough	Road 224 (Westwood)	\$8,000,000.00
Bridge #46C0168, Porter Slough	Prospect St.	\$8,000,000.00
Bridge #46C0170, Porter Slough	Villa St.	\$8,000,000.00
Bridge #46C0171, Porter Slough	W. Putnam Ave.	\$8,000,000.00
Bridge #46C0172, Porter Slough	Plano St.	\$8,000,000.00
Bridge #46C0173, Porter Slough	Leggett Dr.	\$8,000,000.00
Bridge #46C0298, Porter Slough	Park Ave.	\$8,000,000.00
Bridge #46C0299, Porter Slough	Conner St.	\$8,000,000.00
Bridge #46C0424, Porter Slough	"E" Street	\$8,000,000.00
Bridge #46C0425, Porter Slough	Cottage St.	\$8,000,000.00
Bridge #46C0444, Tule River	Main St.	\$10,000,000.00
Porterville Municipal Airport	1893 S. Newcomb St.	\$20,000,000.00
Transit Center	61 W. Oak	\$500,000.00
SCE Rector Electrical Substation	95 N. Cottage	Unknown
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East Porterville 3MG Tank	785 N. Jasmine & Henderson alignment	\$3,750,000.00
Scenic 310K Tank	1470 Highland Dr.	\$388,000.00
Scenic 3MG Tank	1054 Highland Dr.	\$3,750,000.00
Well 01A	Putnam east of 4th	\$2,000,000.00
Well 03	Willow & "E"	\$2,000,000.00
Well 04	Orange & "E"	\$2,000,000.00
Well 06	437 W. Kanai	\$2,000,000.00
Well 07	Orange & Western	\$2,000,000.00
Well 08	"A" & Walnut	\$2,000,000.00
Well 10	Mulberry & Hwy 65	\$2,000,000.00
Well 11	4th & Garden	\$2,000,000.00
Well 12	892 W. Henderson	\$2,000,000.00
Well 13	191 W. Poplar	\$2,000,000.00
Well 15	Morton & "G"	\$2,000,000.00
Well 16	Veterans Park (Henderson)	\$2,000,000.00
Well 17	Tomah & Waukesha	\$2,000,000.00
Well 18	Henderson & Belmont	\$2,000,000.00
Well 19	Jaye & Tule River	\$2,000,000.00
Well 20	Veterans Park (Newcomb)	\$2,000,000.00
Well 21	Harrison & Hockett	\$2,000,000.00

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Table E-3: Porterville Critical Facilities		
Facility	Address	Value
Well 22	Tomah & Newcomb	\$2,000,000.00
Well 23	Union & Indiana	\$2,000,000.00
Well 24	Taylor & Olive	\$2,000,000.00
Well 25	Newcomb & Date	\$2,000,000.00
Well 26	Indiana & Hwy 190	\$2,000,000.00
Well 27	Jaye north of Gibbons	\$2,000,000.00
Well 28	"F" & Gibbons	\$2,000,000.00
Well 29	2250 W. Henderson	\$2,000,000.00
Well 31	Mathew & Orange	\$2,000,000.00
Well AP-01	Airport east of 30K Tank	\$2,000,000.00
Well AP-02	West St.	\$2,000,000.00
Well EP-05	Springville Dr. (Headgate)	\$2,000,000.00
Well L01	Tomah & Beverly	\$2,000,000.00
Well L05	Tomah & Salisbury	\$2,000,000.00
Well L07	Thurman & Cobb	\$2,000,000.00
Well L08	2107 White Chapel	\$2,000,000.00
Well R05	Newcomb & Forrest	\$2,000,000.00
Well R07	2006 W. Olive Ave.	\$2,000,000.00
Well R-11	Iris east of Magnolia	\$2,000,000.00
Well R-12	Cedar north of Iris	\$2,000,000.00

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the City by evaluating the inventory of City owned existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the City was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State—January 1, 2016/2017. The population is estimated to be 59,908 in an area of 17.7 square miles. The estimate is 16,734 residential units with a 2016 median value of \$149,400. The most common employment sectors for those who live in Porterville are government, agriculture, retail trade, and manufacturing.

Economic Risks

The backbone of Porterville's economy is agriculture with manufacturing adding balance to the economy. Industry has also become a significant factor in the development of the community. The Wal-Mart Distribution Center, Beckman Coulter Inc., and Royalty Carpeting are major industries located in the City. Continued industrial diversification is being encouraged. The top employers in the city are:

1. Porterville Developmental Center 1,560 (employees)
2. Porterville Unified School District 1,475
3. Walmart 1,359

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4. Sierra View District Hospital	888
5. Eagle Mountain Casino	512
6. City of Porterville	504
7. Foster Farms	450
8. Burton School District	436
9. U.S. Forest Service	371
10. Beckman Coulter	212

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table E-4** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

Table E-4: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Dam Inundation	<p><u>Impacts:</u> Success Dam is located within two miles of the eastern boundary of Porterville. Warning times for a dam failure are less than 10 minutes. Much of the western portions of the City are in the inundation zone with water depths exceeding 20 feet.</p> <p><u>Costs:</u> A rapid failure of Success Dam would result in catastrophic loss of life and injury, and property loss. Map B-15 depicts the potential footprint for dam inundation. Specifics of the inundation curves are contained in the Success Dam Emergency Action Plan which is a limited distribution document. The potential injury and death from a short notice dam failure could be in the 10,000s. Total losses within the Porterville jurisdiction could exceed \$1,000,000,000.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and</p>

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	<p>rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its needs. During prolonged draughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from draught to the City and its communities are difficult to quantify and are dependent upon draught duration and severity. In addition to increased costs for water, prolonged draught may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the City's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p> <p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Flood	<p><u>Impacts:</u> Flooding occurs in the City during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding.</p> <p><u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$100,000,000.</p>
Wildland Fire	<p><u>Impacts:</u> Structures near the urban/wildland interface are susceptible to wildland fire. Impacts on low density communities are limited.</p> <p><u>Costs:</u> Costs to the City will include emergency response and damage to private property. Total costs are likely to be less than \$10,000,000.</p>

Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Porterville:

- Climate Change
- Dam Inundation
- Drought
- Extreme heat
- Flood

These hazards which may impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, these are hazards that represent vulnerabilities to infrastructure.

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E.4 CAPABILITIES ASSESSMENT

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's “existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.”

Elements

C1. Does the plan document the jurisdiction’s existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The reason for conducting a capability assessment is to identify Porterville’s capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of the City’s capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the City. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

Tables E-5 through E-8 provide a list of the City’s capabilities.

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Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table E-5: Porterville Planning and Regulatory Capabilities

Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Plan 2035	<p>The City's General Plan provides a policy base to guide future growth within the City. It was created by planners, engineers and technical staff with knowledge of land development, land management practices, as well as human-caused and natural hazards. The General Plan:</p> <ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. <p>Applies the approved plans, policies, code provisions, and other regulations to proposed land uses.</p> <p>The MJLHMP may be adopted as part of the Safety Element by the City Counsel. As the Safety Element is updated, revised hazard analysis from the MHLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	All	Updated 2014 – Safety Element	Planning
California Building Code Enforcement	The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California including housing, public buildings and maintenance facilities. Improved safety, sustainability, maintaining consistency, new technology and construction methods, and	Earthquake, Fire, Floods, Severe winter storm/high winds		Regulatory

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Table E-5: Porterville Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<p>reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.</p> <p>California's building codes are published in their entirety every three (3) years. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle. The California Seismic Safety Commission provides access to an array of regulatory and advisory information at: http://www.seismic.ca.gov/cog.html</p>			
Capital Improvement Program (CIP)	<p>The City's CIP provides a foundation and planning tool to assist in the orderly acquisition of municipal facilities and to assure that service needs for the future are met. The CIP provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.</p> <p>The MJLHMP will be used to select potential projects for the CIP. As the CIP is updated, additional mitigation measures will be analyzed and included in the Porterville section of the MJLHMP. Funding for CIP projects identified in the MJLHMP will be reviewed for mitigation grant program eligibility.</p>	Dam Failure, Earthquake, Fire, Floods, Landslides, Levee failure, Severe winter storm/high winds		Planning
Tulare County Municipal Service Review (MSR)	<p>MSRs are intended to provide a comprehensive analysis of service provision by each of the special districts and other service providers within the legislative authority of the (LAFCo) of a city. This analysis focuses on service providers within the City of Lindsay and makes determinations in each area of evaluation. The MSR considers and makes recommendations based on the following information:</p> <ul style="list-style-type: none"> • Present and planned land uses in the area. • Present and probable need for services in the area. 	All		Planning

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Table E-5: Porterville Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<ul style="list-style-type: none"> • Present ability of each service provider to provide necessary services. • The fiscal, management, and structural health of each service provider. • The existence of any social or economic communities of interest in the area. 			
City Code of Ordinances	<p>The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; to regulate and control the demolition of all buildings and structures, and for related purposes.</p> <p>The MJLHMP will provide both hazard descriptions and mitigation actions that may address energy conservation, fire protection and development in hazard prone areas. The maps of Porterville related hazards will be used to augment other mapping products to protect public health and safety when updating City Code.</p>	Earthquake, Fire, Flooding,		Regulatory
Emergency Operations Plan (2015)	Describes what the local jurisdiction's actions will be during a response to an emergency. Includes annexes that describe in more detail the actions required of the local jurisdiction's departments/agencies. Further, this plan describes the role of the Emergency Operation Center (EOC) and the coordination that occurs between the EOC and the local jurisdiction's departments and other response agencies. Finally, this plan describes how the EOC serves as the focal point among local, state, and federal governments in times of disaster.	All	Yes: Mitigation and preparedness sections. Hazard descriptions.	Planning

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Table E-5: Porterville Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	The MJLHMP will be used as an essential tool to update the City EOP. Cal OES requires that EOPs describe applicable hazards as part of the Plan. The latest MJLHMP hazards descriptions will be included. Mitigation actions that are preparedness and response in nature will be analyzed for applicability to include in the description of EOP processes and procedures.			
Stormwater Quality Management Program (SWQMP) - Storm Water Management Plan (2009)	Describes measures that the local jurisdiction will take to minimize stormwater pollution. The SWQMP is required by the National Pollutant Discharge Elimination System Phase II regulations, which became effective in March 2003.	Flooding		Planning

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Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table E-6: Porterville Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Engineer, project managers, technical staff, equipment operators, and construction staff within the Public Works Department.	Maintains and operates a wide range of local equipment and facilities as well as providing assistance to members of the public. These include providing sufficient clean fresh water, reliable sewer services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.	All		Technical
Procurement Department	Provides a full range of municipal financial services, administers several licensing measures, and functions as the plan participant's Procurement Services Manager.	All		Technical
Engineers, Inspectors, Code enforcement officers, and other technical staff within Tulare City Fire Department Building Inspections	Provides for building inspection and code certifications.	Fire, Earthquake		Technical

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and Planning Division				
Floodplain Administrator	Reviews and ensures that new development proposals do not increase flood risk, and that new developments are not located below the 100-year flood level. In addition, the Floodplain Administrator is responsible for planning and managing flood risk reduction projects throughout the local jurisdiction or tribal area.	Flood		Technical
Emergency Manager	Maintains and updates the Emergency Operations Plan for the local jurisdiction. In addition, coordinates local response and relief activities within the Emergency Operation Center, and works closely with County, state, and federal partners to support planning and training and to provide information and coordinate assistance.	All		Technical

Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table E-7: Porterville Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Fund	Program operations and specific projects.	All		Financial, Financial Services Department
General Obligation Bonds	GO Bonds are appropriately used for the construction and/or acquisition of improvements to real property broadly available to residents and visitors. Such facilities include, but are not limited to, libraries, hospitals, parks, public safety facilities, and cultural and educational facilities.	All		Financial
Lease Revenue Bonds Funding	Lease revenue bonds are used to finance capital projects that (1) have an identified budgetary stream for repayment (e.g., specified fees, tax receipts, etc.); (2) generate project revenue but rely on a broader pledge of general fund revenues to reduce borrowing costs; or (3) finance the acquisition and installation of equipment for the local jurisdiction's general governmental purposes.	All		Financial

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Public-Private Partnerships for Economic and Redevelopment	Includes the use of local professionals, business owners, residents, and civic groups and trade associations, generally for the study of issues and the development of guidance and recommendations.	All		Financial
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Education and Outreach: Programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

Table E-8: Porterville Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach
Porterville Website http://www.ci.porterville.ca.us/ and other social media	Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts. The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.	All		Education and Outreach

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E.5 MITIGATION STRATEGY

Table E-9 lists the City specific mitigation actions from the 2011 Plan and provides their status.

Table E-9: Porterville-Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
10	Y	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or DWR.	A, B, C, D	Unknown	Public Works	Ongoing: Mitigation Action 9 in 2017 Plan.
11	Y	Increase participation in the NFIP by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	A, B, C, D, E	Unknown	Public Works	Ongoing: Mitigation Action 10 in 2017 Plan.

Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

The City's mitigation strategies from the 2011 HMP are still relevant to this update. **Table E-10** contains an updated set of potential mitigation strategies for new Plan. Mitigation actions were derived from numerous sources including the General Plan, City Code, Capital Improvement Plan and input from the public and stakeholders.

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Table E-10: Porterville - Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the City HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plan, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
6	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
7	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or State responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.

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9	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.
10	Reinforce City ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
11	Regulate development in the 100-year floodplain zones, as designated on maps prepared by FEMA in accordance with the following: <ul style="list-style-type: none"> • Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted. • Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible. • New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions. 	FL	Mit.
12	Increase participation in the NFIP by entering the Community Rating System program through which enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
13	Within the City limits, where storm and flood prevention improvements have not been installed, initiate a program to upgrade in accordance with the Master Drainage Control Plan for the area. Priorities should be conditioned upon locations where flood and sheet flow hazards are greatest.	FL	Mit.
14	Ensure that new City flood control projects will not adversely impact downstream properties or contribute to flooding hazards.	FL	Mit.
15	Maintain emergency evacuation plans for areas identified as subject to potential flooding.	FL	Mit.
16	Continue aggressive clearing of storm drain problem areas for mitigation/prevention of localized flooding	FL	Mit.
17	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.

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18	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
19	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
20	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
21	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
22	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
23	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about dam inundation, severe valley fog and extreme heat conditions.	FG, EH	Resp.
24	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.
25	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.

A list of mitigation actions was selected from the mitigation strategies. **Table E-11** provides the mitigation 2017 MJLHMP actions for the City. New priorities for mitigation actions are listed in the table.

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Table E-11 Portville - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	Planning	Unknown	Medium	Ongoing
2	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or State responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	Development	Unknown	Medium	One year
3	<p>Regulate development in the 100-year floodplain zones, as designated on maps prepared by FEMA in accordance with the following:</p> <ul style="list-style-type: none"> • Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted. • Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible. <p>New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.</p>	Planning	Unknown	Medium	One year
4	Within the City limits, where storm and flood prevention improvements have not been installed, initiate a program to upgrade in accordance with the Master Drainage Control	Public Works	Unknown	Medium	One year

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	Plan for the area. Priorities should be conditioned upon locations where flood and sheet flow hazards are greatest.				
5	Ensure that new City flood control projects will not adversely impact downstream properties or contribute to flooding hazards.	Public Works	Unknown	Medium	Ongoing
6	Maintain emergency evacuation plans for areas identified as subject to potential flooding.	Fire Department	Unknown	High	One Year
7	Continue aggressive clearing of storm drain problem areas for mitigation/prevention of localized flooding	Public Works	Unknown	Medium	Ongoing
8	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about dam inundation, severe valley fog and extreme heat conditions.	Fire Department	Unknown	High	Ongoing
9	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or DWR.	Planning	Unknown	Medium	Ongoing
10	Increase participation in the NFIP by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	Planning	Unknown	Medium	One year

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. In Porterville, these other planning documents and process include the General Plan Update, the City Code zoning ordinances and various infrastructure master plans. The term incorporated in planning terms means that the HMP and the other plans have similar community goals and policies, that they advocate similar land use patterns, and they are consistent in their guidance of direction and rate of growth. As other plans are updated or created, the HMP should be used as guidance.

Some of the plans listed in the Capabilities Assessment mentioned in Section E.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Dinuba Annex into the Health and Safety Element of the City's General Plan.
- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances

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- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices
- Resource for developing and/or updating emergency operations plans emergency response plans, etc.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate.

Although Porterville did not incorporate the Plan risk assessment elements into the natural resources and safety elements of the City's 2014 update to the General Plan, it should do so once the new Plan is complete. The City should also use the update Plan for development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

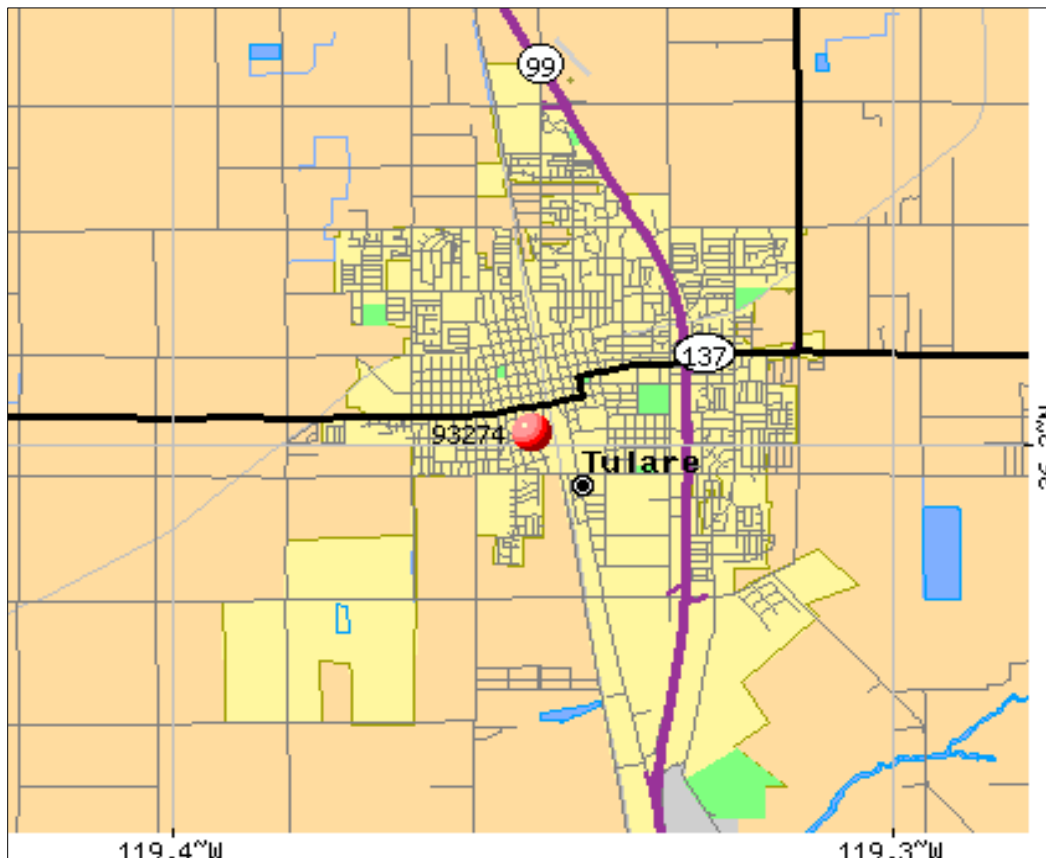
2017 Tulare County MJLHMP - Annex F City of Tulare

Annex F City of Tulare

The City of Tulare is located in the heart of the Central Valley, eight miles south of Visalia and sixty miles north of Bakersfield. It was incorporated in 1888. The City provides the following services:

- Public safety (police and fire protection, ambulance)
- Highways and streets
- Wastewater collection, treatment, and disposal
- Domestic water
- Storm drainage
- Solid waste collection and disposal.

Figure F-1: City of Tulare Map



F.1 Community Profile

Geography and Climate: The City has an incorporated area of 21.0 square miles. The City is relatively flat with an elevation of approximately 289 feet above sea level. Tulare's climate can be described as dry Mediterranean. The summers are hot and dry, and winters are characterized by moderate temperatures and light precipitation. Temperatures and rainfall for Tulare are typical of that of the rest of the valley floor portion of the County. Tulare consistently suffers from year-round air pollution and air quality that is among the worst in the U.S. because of both geographic conditions, dust from agriculture and vehicle emissions.

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Government: Tulare operates as a council-manager form of municipal government which is comprised of five council members serving four-year overlapping terms. The mayor is elected separately.

Population and Demographics: The 2010 U.S. Census reported that Tulare had a population of 59,278. The population density was 2,820.5 people per square mile. The racial makeup of Tulare was 36,347 (61.3%) White; 2,328 (3.9%) African American; 694 (1.2%) Native American; 1,276 (2.2%) Asian; 80 (0.1%) Pacific Islander; 15,713 (26.5%) from other races; and 2,840 (4.8%) from two or more races. Hispanic or Latino of any race were 34,062 persons (57.5%). The Census reported that 59,000 people (99.5% of the population) lived in households, 62 people (0.1%) lived in non-institutionalized group quarters, and 216 people (0.4%) were institutionalized.

There were 17,720 households, out of which 8,991 (50.7%) had children under the age of 18 living in them, 9,373 (52.9%) were opposite-sex married couples living together, 3,190 (18.0%) had a female householder with no husband present, 1,507 (8.5%) had a male householder with no wife present. There were 1,543 (8.7%) unmarried opposite-sex partnerships, and 120 (0.7%) same-sex married couples or partnerships. 2,862 households (16.2%) were made up of individuals and 1,249 (7.0%) had someone living alone who was 65 years of age or older. The average household size was 3.33. There were 14,070 families (79.4% of all households); the average family size was 3.68.

Housing: There were 18,863 housing units at an average density of 897.5 per square mile (346.5/km²), of which 10,389 (58.6%) were owner-occupied, and 7,331 (41.4%) were occupied by renters. The homeowner vacancy rate was 2.8%; the rental vacancy rate was 5.5%. 33,367 people (56.3% of the population) lived in owner-occupied housing units and 25,633 people (43.2%) lived in rental housing units.

Economy: The backbone of Tulare's economy is agricultural and the dairy industry. Tulare is responsible for a significant part of Tulare County's 342,600 dairy cows, which produce more than 8.9 billion pounds of milk each year. The nation's largest single-site dairy complex, operated by Land O'Lakes, is located in Tulare.

Tulare is the home of the Tulare County Fair, held since 1915. Tulare is also home to the internationally known World Ag Expo, held annually at the International Agri-Center. Since 1968, the three-day event in February is the largest annual agricultural exposition in the world, with 1,600 exhibitors on hand showcasing the best in current agricultural technology and products. Over 100,000 people from throughout the world visit the Expo annually.

The top private employers in the City are:

1. Land O'Lakes	580 (employees)
2. Nestlé	300
3. Walmart	280
4. Southern California Edison	270
5. Saputo	250
6. United States Cold Storage	200
7. Kraft Foods	150
8. J.D. Heiskell & Company	125

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9. Ruiz Foods	120
10. Tulare Cultured Specialties	120

Land use: The existing land uses include 5,056 acres of residential, 1,598 acres of commercial, 1,781 acres of industrial, 340 acres of Parks and Recreation, and 1,625 acres of Public facilities. Between 1990 and 2010, an average of 99,669 square feet of new commercial development was constructed per year in Tulare, for a total of 1.9 million square feet. Based upon State and regional demographic data, it is likely that Tulare could grow at an average annual growth rate between 2.5 and 3.0 percent over the next 20 years.

Tulare is becoming a regional commercial center due to the Tulare Outlet Center and proximity to State Route 99. Tulare has access to a wide range of goods, services and shopping centers. Tulare's downtown features various gift shops, custom-made clothing stores, florists and antique shops, restaurants, banks, service stations and other businesses. The Tulare Outlet Center is located on Hwy 99, and is the only large outlet center within a 2 1/2 hour driving radius. The Center is 226,413 sq. ft. encompassing over 50 brand name outlets, a ten-screen movie theatre and restaurants.

The City has four industrial parks, at an estimated 1,200 acres zoned for light to heavy industries. Parcel sizes range from 1 acre to 195 acres, and are mostly improved. Terrain is flat with good drainage, while subsoil is sandy and piling is not required. Most sites are adjacent to the 99 Freeway and Union Pacific rail.

Figure F-2 provides a land use map of Tulare.

Development trends: Since 2006, Tulare has successfully annexed over 1,200 acres of land into the City. The State DOF estimated Tulare had a population of 63,515 in 2016. Tulare finds itself becoming an urbanized city with an expanding population. Despite a slightly slower pace of development compared to the average annual growth rate from 1990 through 2010 of 2.9 percent, the City expects to add 42,020 residents over the next 20 years at an average annual growth rate of 2.7 percent.

Development in hazard prone areas:

Because population growth was less than two percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the County. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

Updated dam inundation maps include a much larger area of the County. While little new development occurred in the expanded inundation zones, vulnerability to dam inundation increased substantially and now includes most of the most populace areas of the County. Updated dam inundation maps for the County and affected cities are included in **Appendix B**.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire City. Development in the City, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

2017 Tulare County MJLHMP - Annex F City of Tulare

F.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: Tulare faces many of the hazards that are present in the County. **Table F-1** below provides a summary of hazards. There are no hazards that are unique to Tulare. Dam inundation is a particularly extensive hazard to the City. Both Terminus and Success Dams may inundate Tulare resulting in an overall potential inundation area of the entire City. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include wild fire, earthquake liquefaction - subsidence, civil unrest and terrorism/cyber terrorism.

Table F-1: Tulare Summary of Hazards					
Hazard	Frequency	Extent	Magnitude	Significance	Location
Climate Change	Highly	Extensive	Catastrophic	High	Entire City
Dam Failure	Unlikely	Extensive	Catastrophic	High	Map B-17 depicts
Drought	Likely	Extensive	Catastrophic	High	Entire City
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Entire City
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire City
Extreme Heat	Highly	Extensive	Critical	High	Entire City
Fire	Unlikely	Limited	Limited	Low	Entire City
Floods	Highly	Limited	limited	Low	Map B-16 depicts
Fog	Likely	Extensive	Limited	Low	Entire City
Hazardous Materials	Likely	Limited	Limited	Low	Entire City
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire City
Severe Storms and High Winds	Highly Likely	Significant	Limited	Medium	Entire City

Guidelines for Hazard Rankings

Frequency of Occurrence:

Highly Likely	Near 100% probability in next year
Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

Potential Magnitude:

Catastrophic	More than 50% of area affected
Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

Significance (subjective):

low, medium, high

F.3 RISK ASSESSMENT

The intent of this section is to assess Tulare's vulnerability separate from that of the Operational Area as a whole, which has already been assessed in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of

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medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, see **Section 5** of the base plan.

Infrastructure and Values at Risk:

The following data was provided by the Director of City Services. This data should only be used as a guideline to determining overall values in the City as the information has some limitations. Generally, the land itself is not a loss. **Table F-2** shows the 2016 inventory for the City.

Table F-2: Tulare 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Activity Center Building/ Community Center Building	830 Blackstone	\$2,772,118	Earthquake, Dam Flood, Fog
Alice Topham Park	85 W. Tulare Avenue	Unknown	Earthquake, Dam Flood, Fog
Bender Park	1855 W. Pleasant Avenue	Unknown	Earthquake, Dam Flood, Fog
Blain Park	2300 North M Street	Unknown	Earthquake, Dam Flood, Fog
Centennial Park	900 North H Street	Unknown	Earthquake, Dam Flood, Fog
Cesar Chavez Memorial Park	900 E. Bardsley Avenue	Unknown	Earthquake, Dam Flood, Fog
City Bridge #1	At Paige Avenue	Unknown	Earthquake, Dam Flood, Fog
City Bridge #2	At Paige Avenue	Unknown	Earthquake, Dam Flood, Fog
City Bridge #3	0.25 mi N of Paige Avenue	Unknown	Earthquake, Dam Flood, Fog
City Bridge #4	At Mooney Blvd	Unknown	Earthquake, Dam Flood, Fog
City Bridge #5	North of D109A	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Hall	411 Kern Avenue	\$7,436,999	Earthquake, Dam Flood, Fog
Cypress Park	1610 E. Cypress	Unknown	Earthquake, Dam Flood, Fog
Del Lago Park	1700 N. Laspina	Unknown	Earthquake, Dam Flood, Fog
Fire Station #61	800 S. Blackstone St.	\$1,284,296	Earthquake, Dam Flood, Fog
Fire Station #62	138 North E St.	\$404,189	Earthquake, Dam Flood, Fog
Fire Station #63	2900 North M St.	\$1,126,744	Earthquake, Dam Flood, Fog
Hillman Healthcare Center	1062 S. K St.		Earthquake, Dam Flood, Fog
Lift Station	K St. & Goodin	\$106,023	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Mooney & Foster	\$100,999	Earthquake, Dam Flood, Fog
Lift Station	West & Sonora	\$100,999	Earthquake, Dam Flood, Fog
Lift Station	Alpine & Spruce	\$106,023	Earthquake, Dam Flood, Fog
Lift Station	Inyo & West	\$106,023	Earthquake, Dam Flood, Fog
Lift Station	Retherford Drive & Hillman	\$99,933	Earthquake, Dam Flood, Fog
Lift Station	J St. & Mitchell	\$99,933	Earthquake, Dam Flood, Fog
Lift Station	Kraft & South USA	\$90,778	Earthquake, Dam Flood, Fog
Lift Station	Mt. Melvin & Academy	\$90,778	Earthquake, Dam Flood, Fog
Lift Station	Sierra	\$110,895	Earthquake, Dam Flood, Fog
Lift Station	Cross & West	\$110,895	Earthquake, Dam Flood, Fog
Lift Station	Beaumont & Lamar	\$110,895	Earthquake, Dam Flood, Fog
Lift Station	West & Pleasant	\$110,895	Earthquake, Dam Flood, Fog
Lift Station	F St. & Pleasant	\$113,013	Earthquake, Dam Flood, Fog
Lift Station	Merrit & Cherry	\$113,013	Earthquake, Dam Flood, Fog
Lift Station	M St. & Prosperity	\$111,513	Earthquake, Dam Flood, Fog

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Table F-2: Tulare 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Lift Station	M St. & Washington	\$111,513	Earthquake, Dam Flood, Fog
Live Oak Park	600 N. Laspina	Unknown	Earthquake, Dam Flood, Fog
Parkwood Meadows Park	Oakwood and E Street	Unknown	Earthquake, Dam Flood, Fog
Police Station and HVAC	260 South M St.	\$2,998,105	Earthquake, Dam Flood, Fog
Prosperity Sports Park Clubhouse/Restrooms	846 W. Prosperity	\$817,303	Earthquake, Dam Flood, Fog
Public Works	3981 South K Street	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Recreation Center-Tulare Youth Community	948 North H St.	\$4,136,152	Earthquake, Dam Flood, Fog
Senior Center Building	201 North F St.	\$1,712,123	Earthquake, Dam Flood, Fog
Soccer Complex Concession & Restroom	5700 S. Laspina	\$147,272	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Transit Center Building	360 North K St.	\$241,730	Earthquake, Fog
Tulare Municipal Airport	Rankin Avenue	Unknown	Earthquake, 100-Year Floodplain, Fog
Tulare Public Library, Cafe, City Council Chamber	475 North M St.	\$14,117,273	Earthquake, Dam Flood, Fog
Tulare Regional Medical Center	869 N. Cherry St	Unknown	E arthquake, Dam Flood, Fog
Tulare Station #3	Cartmill/M St		Earthquake, Dam Flood, Fog
Tyler Park	140 North E Street		Earthquake, Dam Flood, Fog
Waste Lift Station-Del Lago Station Dry Well and Wet Well	Pasel Del Lago	\$289,366	Earthquake, Dam Flood, Fog
Wastewater Treatment Plant, Pump Stations, Water Well, Headwork, and Splitter Box	1875 South West St.	\$62,881,871	Earthquake, Dam Flood, Fog
Well	1301 East Paige	\$47,828	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Well	2100 W Paige Avenue	\$62,120	Earthquake, Dam Flood, Fog
Well # 1	C Street & San Joaquin	\$183,848	Earthquake, Dam Flood, Fog
Well # 11	Sonora & U Street	\$228,119	Earthquake, Dam Flood, Fog
Well # 12	Pleasant & I Street	\$221,495	Earthquake, Fog
Well # 13	Laspina & Kern	\$144,969	Earthquake, Dam Flood, Fog
Well # 14	Olson west of South K St.	\$132,340	Earthquake, Dam Flood, Fog
Well # 15	Cross west of Mooney	\$162,636	Earthquake, Dam Flood, Fog
Well # 17	Continental & O Street	\$255,836	Earthquake, Dam Flood, Fog
Well # 2	T Street & Sonora	\$119,223	Earthquake, Dam Flood, Fog
Well # 20	Gem, north of Gail	\$69,533	Earthquake, Dam Flood, Fog
Well # 22	Cherry St. south of Prosperity	\$257,654	Earthquake, Dam Flood, Fog
Well # 23	963 Cardoza	\$82,043	Earthquake, Dam Flood, Fog
Well # 24	Laspina & Levin	\$108,434	Earthquake, Dam Flood, Fog
Well # 25	Hwy 99 & Frontage	\$209,485	Earthquake, Dam Flood, Fog
Well # 26	Pleasant & Denair	\$366,530	Earthquake, Dam Flood, Fog
Well # 27	Blain Park	\$239,632	Earthquake, Dam Flood, Fog
Well # 31	North Hillman	\$241,348	Earthquake, Dam Flood, Fog
Well # 33	Gemini & Sonora	\$342,309	Earthquake, Dam Flood, Fog

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Table F-2: Tulare 2016 Asset Inventory			
Name	Address	Value	Hazard Vulnerability
Well # 34	Cross & Delwood	\$144,237	Earthquake, Dam Flood, Fog
Well # 35	Bardsley & Mooney	\$313,078	Earthquake, Dam Flood, Fog
Well # 36	2690 Korbel Court	\$424,561	Earthquake, Fog
Well # 37	E. Side Mooney/Tulare Avenue.	\$227,695	Earthquake, Dam Flood, Fog
Well # 38	NE Corner Laspina/Santa Fe Trails	\$227,695	Earthquake, Dam Flood, Fog
Well # 39	Mooney & Palm Ranch	\$241,100	Earthquake, Dam Flood, Fog
Well # 40	South E St and Lemonwood Avenue	\$326,654	Earthquake, Dam Flood, Fog
Well # 41	W.P.C.F. 2000 W Paige Avenue	\$311,226	Earthquake, Dam Flood, Fog
Well # 42	6096 Leonard Noel Drive	\$305,867	Earthquake, Dam Flood, Fog
Well # 43 and # 44	2245 South Linwood Street (COS Farm)	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Well # 6	I Street & Inyo	\$170,359	Earthquake, Dam Flood, Fog
Well # 8	O Street & Kern	\$130,059	Earthquake, Dam Flood, Fog
Woman's Clubhouse	88 West Tulare	\$865,259	Earthquake, Dam Flood, Fog
Zumwalt Park	400 E. Tulare Avenue	Unknown	Earthquake, Dam Flood, Fog

Critical Facilities: The City has identified the following infrastructure in **Table F-3** as critical facilities:

Table F-3: Tulare Critical Facilities		
Facility	Address	Value
City Bridge #1	At Paige Avenue	Earthquake, Dam Flood, Fog
City Bridge #2	At Paige Avenue	Earthquake, Dam Flood, Fog
City Bridge #3	0.25 mi N of Paige Avenue	Earthquake, Dam Flood, Fog
City Bridge #4	At Mooney Blvd	Earthquake, Dam Flood, Fog
City Bridge #5	North of D109A	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Hall	411 Kern Avenue	Earthquake, Dam Flood, Fog
Fire Station #61	800 S. Blackstone St.	Earthquake, Dam Flood, Fog
Fire Station #62	138 North E St.	Earthquake, Dam Flood, Fog
Fire Station #63	2900 North M St.	Earthquake, Dam Flood, Fog
Hillman Healthcare Center	1062 S. K St.	Earthquake, Dam Flood, Fog
Lift Station	K St. & Goodin	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Mooney & Foster	Earthquake, Dam Flood, Fog
Lift Station	West & Sonora	Earthquake, Dam Flood, Fog
Lift Station	Alpine & Spruce	Earthquake, Dam Flood, Fog
Lift Station	Inyo & West	Earthquake, Dam Flood, Fog
Lift Station	Retherford Drive & Hillman	Earthquake, Dam Flood, Fog
Lift Station	J St. & Mitchell	Earthquake, Dam Flood, Fog
Lift Station	Kraft & South USA	Earthquake, Dam Flood, Fog
Lift Station	Mt. Melvin & Academy	Earthquake, Dam Flood, Fog
Lift Station	Sierra	Earthquake, Dam Flood, Fog
Lift Station	Cross & West	Earthquake, Dam Flood, Fog

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Table F-3: Tulare Critical Facilities		
Facility	Address	Value
Lift Station	Beaumont & Lamar	Earthquake, Dam Flood, Fog
Lift Station	West & Pleasant	Earthquake, Dam Flood, Fog
Lift Station	F St. & Pleasant	Earthquake, Dam Flood, Fog
Lift Station	Merrit & Cherry	Earthquake, Dam Flood, Fog
Lift Station	M St. & Prosperity	Earthquake, Dam Flood, Fog
Lift Station	M St. & Washington	Earthquake, Dam Flood, Fog
Police Station and HVAC	260 South M St.	Earthquake, Dam Flood, Fog
Prosperity Sports Park Clubhouse/Restrooms	846 W. Prosperity	Earthquake, Dam Flood, Fog
Public Works	3981 South K Street	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Recreation Center-Tulare Youth Community	948 North H St.	Earthquake, Dam Flood, Fog
Senior Center Building	201 North F St.	Earthquake, Dam Flood, Fog
Transit Center Building	360 North K St.	Earthquake, Dam Flood, Fog
Tulare Municipal Airport	Rankin Avenue	Earthquake, 100-Year Floodplain, Fog
Tulare Public Library, Cafe, City Council Chamber	475 North M St.	Earthquake, Dam Flood, Fog
Tulare Regional Medical Center	869 N. Cherry St	Earthquake, Dam Flood, Fog
Tulare Station #3	Cartmill/M St	Earthquake, Dam Flood, Fog
Waste Lift Station-Del Lago Station Dry Well and Wet Well	Pasel Del Lago	Earthquake, Dam Flood, Fog
Wastewater Treatment Plant, Pump Stations, Water Well, Headwork, and Splitter Box	1875 South West St.	Earthquake, Dam Flood, Fog
Well	1301 East Paige	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Well	2100 W Paige Avenue	Earthquake, Dam Flood, Fog
Well # 1	C Street & San Joaquin	Earthquake, Dam Flood, Fog
Well # 11	Sonora & U Street	Earthquake, Dam Flood, Fog
Well # 12	Pleasant & I Street	Earthquake, Dam Flood, Fog
Well # 13	Laspina & Kern	Earthquake, Dam Flood, Fog
Well # 14	Olson west of South K St.	Earthquake, Dam Flood, Fog
Well # 15	Cross west of Mooney	Earthquake, Dam Flood, Fog
Well # 17	Continental & O Street	Earthquake, Dam Flood, Fog
Well # 2	T Street & Sonora	Earthquake, Dam Flood, Fog
Well # 20	Gem, north of Gail	Earthquake, Dam Flood, Fog
Well # 22	Cherry St. south of Prosperity	Earthquake, Dam Flood, Fog
Well # 23	963 Cardoza	Earthquake, Dam Flood, Fog
Well # 24	Laspina & Levin	Earthquake, Dam Flood, Fog
Well # 25	Hwy 99 & Frontage	Earthquake, Dam Flood, Fog
Well # 26	Pleasant & Denair	Earthquake, Dam Flood, Fog
Well # 27	Blain Park	Earthquake, Dam Flood, Fog
Well # 31	North Hillman	Earthquake, Dam Flood, Fog
Well # 33	Gemini & Sonora	Earthquake, Dam Flood, Fog
Well # 34	Cross & Delwood	Earthquake, Dam Flood, Fog
Well # 35	Bardsley & Mooney	Earthquake, Dam Flood, Fog
Well # 36	2690 Korbel Court	Earthquake, Dam Flood, Fog

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Table F-3: Tulare Critical Facilities		
Facility	Address	Value
Well # 37	E. Side Mooney/Tulare Avenue.	Earthquake, Dam Flood, Fog
Well # 38	NE Corner Laspina/Santa Fe Trails	Earthquake, Dam Flood, Fog
Well # 39	Mooney & Palm Ranch	Earthquake, Dam Flood, Fog
Well # 40	South E St and Lemonwood Avenue	Earthquake, Dam Flood, Fog
Well # 41	W.P.C.F. 2000 W Paige Avenue	Earthquake, Dam Flood, Fog
Well # 42	6096 Leonard Noel Drive	Earthquake, Dam Flood, Fog
Well # 43 and # 44	2245 South Linwood Street (COS Farm)	Earthquake, 500-Year Floodplain, Dam Flood, Fog

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the City by evaluating the inventory of City owned existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the City was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State—January 1, 2016/2017. The population is estimated to be 62,779 in an area of 17.7 square miles. The estimate is 18,863 residential units with a 2016 median value of \$163,100. The most common employment sectors for those who live in Tulare are government, agriculture, retail trade, and manufacturing.

Economic Risks

The backbone of Visalia's economy is agricultural and the dairy industry. Tulare is responsible for a significant part of Tulare County's 342,600 dairy cows, which produce more than 8.9 billion pounds of milk each year. The nation's largest single-site dairy complex, operated by Land O'Lakes, is located in Tulare.

Tulare is the home of the Tulare County Fair, held since 1915. Tulare is also home to the internationally known World Ag Expo, held annually at the International Agri-Center. Since 1968, the three-day event in February is the largest annual agricultural exposition in the world, with 1,600 exhibitors on hand showcasing the best in current agricultural technology and products. Over 100,000 people from throughout the world visit the Expo annually.

The top private employers in the City are:

1. Land O'Lakes	580 (employees)
2. Nestlé	300
3. Walmart	280
4. Southern California Edison	270
5. Saputo	250
6. United States Cold Storage	200
7. Kraft Foods	150

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8. J.D. Heiskell & Company	125
9. Ruiz Foods	120
10. Tulare Cultured Specialties	120

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table F-4** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

Table F-4: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Dam Inundation	<p><u>Impacts:</u> Dam inundation is a particularly extensive hazard to the City. Both Terminus and Success Dams may inundate Tulare resulting in an overall potential inundation area of the entire City.</p> <p><u>Costs:</u> A rapid failure of Success or Terminus Dam would result in catastrophic loss of life and injury, and property loss. Map B-15 depicts the potential footprint for dam inundation. Specifics of the inundation curves are contained in the Dam Emergency Action Plans which are limited distribution documents. The potential injury and death from a short notice dam failure could be in the 10,000s. Total losses within the Tulare jurisdiction could exceed \$1,000,000,000.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its</p>

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	<p>needs. During prolonged draughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from draught to the City and its communities are difficult to quantify and are dependent upon draught duration and severity. In addition to increased costs for water, prolonged draught may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the City's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p> <p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Flood	<p><u>Impacts:</u> Flooding occurs in the City during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding.</p> <p><u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$100,000,000.</p>

Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Tulare:

- Climate Change
- Dam Inundation
- Drought
- Extreme heat
- Flood

These hazards which may impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, these are hazards that represent vulnerabilities to infrastructure.

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F.4 CAPABILITIES ASSESSMENT

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's “existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.”

Elements

C1. Does the plan document the jurisdiction’s existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The reason for conducting a capability assessment is to identify Tulare’s capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of the City’s capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management practices and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the City. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

Tables F-5 through F-8 provide a list of the City’s capabilities.

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Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table F-5 Tulare Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Plan 2035	<p>The City's General Plan provides a policy base to guide future growth within the City. It was created by planners, engineers and technical staff with knowledge of land development, land management practices, as well as human-caused and natural hazards. The General Plan:</p> <ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. <p>Applies the approved plans, policies, code provisions, and other regulations to proposed land uses.</p> <p>The MJLHMP may be adopted as part of the Safety Element by the City Counsel. As the Safety Element is updated, revised hazard analysis from the MHLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	All	Updated 2013 – Health and Safety Element	Planning
California Building Code Enforcement	The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California including housing, public buildings and maintenance facilities. Improved safety, sustainability, maintaining consistency, new technology and construction methods, and	Earthquake, Fire, Floods, Severe winter		Regulatory

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Table F-5 Tulare Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<p>reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.</p> <p>California's building codes are published in their entirety every three (3) years. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle. The California Seismic Safety Commission provides access to an array of regulatory and advisory information at: http://www.seismic.ca.gov/cog.html</p>	storm/high winds		
Capital Improvement Program (CIP)	<p>The City's CIP provides a foundation and planning tool to assist in the orderly acquisition of municipal facilities and to assure that service needs for the future are met. The CIP provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.</p> <p>The MJLHMP will be used to select potential projects for the CIP. As the CIP is updated, additional mitigation measures will be analyzed and included in the Tulare section of the MJLHMP. Funding for CIP projects identified in the MJLHMP will be reviewed for mitigation grant program eligibility.</p>	Dam Failure, Earthquake, Fire, Floods, Landslides, Levee failure, Severe winter storm/high winds		Planning
Tulare County Municipal Service Review (MSR)	<p>MSRs are intended to provide a comprehensive analysis of service provision by each of the special districts and other service providers within the legislative authority of the (LAFCo) of a city. This analysis focuses on service providers within the City of Tulare and makes determinations in each area of evaluation. The MSR considers and makes recommendations based on the following information:</p> <ul style="list-style-type: none"> • Present and planned land uses in the area. • Present and probable need for services in the area. 	All		Planning

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Table F-5 Tulare Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<ul style="list-style-type: none"> • Present ability of each service provider to provide necessary services. • The fiscal, management, and structural health of each service provider. • The existence of any social or economic communities of interest in the area. 			
City Code of Ordinances	<p>The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; to regulate and control the demolition of all buildings and structures, and for related purposes.</p> <p>The MJLHMP will provide both hazard descriptions and mitigation actions that may address energy conservation, fire protection and development in hazard prone areas. The maps of Tulare related hazards will be used to augment other mapping products to protect public health and safety when updating City Code.</p>	Earthquake, Fire, Flooding,		Regulatory
Emergency Operations Plan	Describes what the local jurisdiction's actions will be during a response to an emergency. Includes annexes that describe in more detail the actions required of the local jurisdiction's departments/agencies. Further, this plan describes the role of the Emergency Operation Center (EOC) and the coordination that occurs between the EOC and the local jurisdiction's departments and other response agencies. Finally, this plan describes how the EOC serves as the focal point among local, state, and federal governments in times of disaster.	All		Planning

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Table F-5 Tulare Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	The MJLHMP will be used as an essential tool to update the City EOP. Cal OES requires that EOPs describe applicable hazards as part of the Plan. The latest MJLHMP hazards descriptions will be included. Mitigation actions that are preparedness and response in nature will be analyzed for applicability to include in the description of EOP processes and procedures.			
Stormwater Quality Management Program (SWQMP) - Storm Water Management Plan	Describes measures that the local jurisdiction will take to minimize stormwater pollution. The SWQMP is required by the National Pollutant Discharge Elimination System Phase II regulations, which became effective in March 2003.	Flooding		Planning

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Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table F-6: Tulare Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Engineer, project managers, technical staff, equipment operators, and construction staff within the Public Works Department.	Maintains and operates a wide range of local equipment and facilities as well as providing assistance to members of the public. These include providing sufficient clean fresh water, reliable sewer services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.	All		Technical
Procurement Department	Provides a full range of municipal financial services, administers several licensing measures, and functions as the plan participant's Procurement Services Manager.	All		Technical
Engineers, Inspectors, Code enforcement officers, and other technical staff within Tulare City Fire Department Building Inspections	Provides for building inspection and code certifications.	Fire, Earthquake		Technical

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Table F-6: Tulare Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
and Planning Division				
Floodplain Administrator	Reviews and ensures that new development proposals do not increase flood risk, and that new developments are not located below the 100-year flood level. In addition, the Floodplain Administrator is responsible for planning and managing flood risk reduction projects throughout the local jurisdiction or tribal area.	Flood		Technical
Emergency Manager	Maintains and updates the Emergency Operations Plan for the local jurisdiction. In addition, coordinates local response and relief activities within the Emergency Operation Center, and works closely with County, state, and federal partners to support planning and training and to provide information and coordinate assistance.	All		Technical

Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table F-7: Tulare Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Fund	Program operations and specific projects.	All		Financial, Financial Services Department
General Obligation Bonds	GO Bonds are appropriately used for the construction and/or acquisition of improvements to real property broadly available to residents and visitors. Such facilities include, but are not limited to, libraries, hospitals, parks, public safety facilities, and cultural and educational facilities.	All		Financial

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Table F-7: Tulare Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Lease Revenue Bonds Funding	Lease revenue bonds are used to finance capital projects that (1) have an identified budgetary stream for repayment (e.g., specified fees, tax receipts, etc.), (2) generate project revenue but rely on a broader pledge of general fund revenues to reduce borrowing costs, or (3) finance the acquisition and installation of equipment for the local jurisdiction's general governmental purposes.	All		Financial
Public-Private Partnerships for Economic and Redevelopment	Includes the use of local professionals, business owners, residents, and civic groups and trade associations, generally for the study of issues and the development of guidance and recommendations.	All		Financial

Education and Outreach: Programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

Table F-8: Tulare Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach

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Tulare Website http://www.tulare.ca.gov/home and other social media	<p>Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts.</p> <p>The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.</p>	All		Education and Outreach
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F.5 MITIGATION STRATEGY

Table F-9 lists the City specific mitigation actions from the 2011 Plan and provides their status.

Table F-9: Tulare-Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
2	Y	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	A, B, D, E	Updating EOC	Planning Division	Ongoing: Mitigation Action 9 in 2017 Plan.
3	Y	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	A, B, D	Fire Station 62 & 61	Tulare City Fire Department and Building Inspection and Planning Division	Completed

Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

The City's mitigation strategy 2 from the 2011 HMP is still relevant to this update. **Table F-10** contains an updated set of potential mitigation strategies for new Plan. Mitigation actions were derived from numerous sources including the General Plan, City Code, Capital Improvement Plan and input from the public and stakeholders.

Table F-10: Tulare Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the City HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
6	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
7	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or State responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.

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8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
9	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.
10	Reinforce City ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
11	Regulate development in the 100-year floodplain zones, as designated on maps prepared by FEMA in accordance with the following: <ul style="list-style-type: none"> • Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted. • Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible. • New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions. 	FL	Mit.
12	Increase participation in the NFIP by entering the Community Rating System program through which enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
13	Within the City limits, where storm and flood prevention improvements have not been installed, initiate a program to upgrade in accordance with the Master Drainage Control Plan for the area. Priorities should be conditioned upon locations where flood and sheet flow hazards are greatest.	FL	Mit.
14	Ensure that new City flood control projects will not adversely impact downstream properties or contribute to flooding hazards.	FL	Mit.
15	Maintain emergency evacuation plans for areas identified as subject to potential flooding.	FL	Mit.
16	Continue aggressive clearing of storm drain problem areas for mitigation/prevention of localized flooding	FL	Mit.

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17	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
18	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
19	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
20	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
21	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
22	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
23	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
24	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
25	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
27	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.
28	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.

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29	Construct a new storm water lift station at Levin Ave and West St. The new lift station will help relieve flooding citywide. The new lift station will pump water into the retention basin at the WWTP. Construction will be coordinated with TID. This is priority 2 of the new lift stations proposed. Cost \$300,000.	Flood	Mit.
30	Construct a new storm water lift station at mid-stream on Levin Ave. Staff converted the old dairy waste line to a storm drain line in 2015. A lift station is now needed to relieve the overflow at Bardsley and West. The new lift station will pump water into the retention basin at the WWTP. This is priority 1 of the new lift stations proposed. Cost \$300,000.	Flood	Mit.
31	Install SCADA at storm water lift stations. Project includes the initial cost of integration into the existing SCADA system and installation of SCADA at critical sites. Cost \$375,000.	Flood	Mit.
32	Install portable generators to ensure function of surface water lift stations during power outage. Limit street flooding. Enables lift station operations during rain events and lessen risk of street flooding. Cost \$135,000.	Flood	Mit.
33	Acquire trailer mounted trash pumps used for pumping undeveloped roadside flooding city wide. Enables removing localized flooding from city streets. Cost \$11,000.	Flood	Mit.
34	Purchase and develop sites for groundwater recharge basins. Additional property is needed to construct new ponding basins and/or recharge basins to collect rain and nuisance water for HEP program recharge. Cost \$1,000,000	Flood	Mit.

A list of mitigation actions was selected from the mitigation strategies. **Table F-11** provides the mitigation 2017 MJLHMP actions for the City. New priorities for mitigation actions are listed in the table.

Table F-11 Tulare - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Construct a new storm water lift station at Levin Ave and West St. The new lift station will help relieve flooding citywide. The new lift station will pump water into the retention	Public Works	\$300,000	2	2-5 Years

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	basin at the WWTP. Construction will be coordinated with TID. This is priority 2 of the new lift stations proposed.				
2	Construct a new storm water lift station at mid-stream on Levin Ave. Staff converted the old dairy waste line to a storm drain line in 2015. A lift station is now needed to relieve the overflow at Bardsley and West. The new lift station will pump water into the retention basin at the WWTP. This is priority 1 of the new lift stations proposed.	Public Works	\$300,000	1	2-5 Years
3	Install SCADA at storm water lift stations. Project includes the initial cost of integration into the existing SCADA system and installation of SCADA at critical sites. Cost.	Public Works	\$375,000	Medium	One year
4	Install portable generators to ensure function of surface water lift stations during power outage. Limit street flooding. Enables lift station operations during rain events and lessen risk of street flooding.	Public Works	\$135,000	High	2-5 Years
5	Acquire trailer mounted trash pumps used for pumping undeveloped roadside flooding city wide. Enables removing localized flooding from city streets.	Public Works	\$11,000.	Low	One year
6	Purchase and develop sites for groundwater recharge basins. Additional property is needed to construct new ponding basins and/or recharge basins to collect rain and nuisance water for HEP program recharge.	Public Works	\$1,000,000	Medium	2-5 Years
7	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	Planning	Unknown	Medium	Ongoing

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. In the City of Tulare, these other planning documents and process include the General Plan Update, the City Code zoning ordinances and various infrastructure master plans. The term incorporated in planning terms means that the HMP and the other plans have similar community goals and policies in that they advocate similar land use patterns, and they are consistent in their guidance

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of direction and rate of growth. As other plans are updated or created, the HMP should be used as guidance.

Some of the plans listed in the Capabilities Assessment mentioned in Section F.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Tulare Annex into the Health and Safety Element of the City's General Plan.
- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances
- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices
- Resource for developing and/or updating emergency operations plans emergency response plans, etc.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate.

Although Tulare did not incorporate the Plan risk assessment elements into the natural resources and safety elements of the City's 2013 update to the General Plan, it should do so once the new Plan is complete. The City should also use the update Plan for development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

Annex G Tulare County Office of Education

The Tulare County Office of Education (TCOE) serves over 100,000 students, and 43 elementary and nine high school districts in the County. Tulare County school districts range from single-school districts with as few as 20 students to large, multi-school districts with over 25,000 students. To address the challenge of serving such a diversity of districts, the TCOE is organized into four primary divisions: Business Services, Human Resources, Instructional Services, and Special Services.

Table G-1 contains a list of school districts:

Table G-1: TCOE Districts			
Elementary School Districts			
Allensworth	Exeter Unified	Pixley	Sunnyside
Alpaugh Unified	Farmersville Unified	Pleasant View	Terra Bella
Alta Vista	Hope	Porterville Unified	Three Rivers
Buena Vista	Hot Springs	Richgrove	Tipton
Burton	Kings River	Rockford	Traver
Citrus South Tule	Liberty	Sausalito	Tulare City
Columbine	Lindsay Unified	Sequoia Union	Visalia Unified
Cutler-Orosi Unified	Monson-Sultana	Springville	Waukena
Dinuba Unified	Oak Valley	Stone Corral	Woodlake Unified
Ducor	Outside Creek	Strathmore	Woodville
Earlimart	Palo Verde	Sundale	
High School Districts			
Alpaugh Unified	Farmersville Unified	Tulare High	Porterville Unified
Cutler-Orosi Unified	Lindsay Unified	Visalia Unified	Woodlake Unified
Dinuba Unified			

G.1 Community Profile

The school districts are located throughout the County. As special districts within the cities and County, they fit within their individual community profiles.

G.2 Hazards Identification and Analysis

The school districts that are supported by TCOE face similar hazards to the communities they are located within. There are no hazards that are unique to the school districts. **Table G-2** contains a risk analysis of the TCOE school districts based upon the County analysis. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include earthquake liquefaction – subsidence and civil unrest.

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Table G–2: TCOE Summary of Hazards

Hazard	Frequency	Extent	Magnitude	Significance	Location
Climate Change	Highly likely	Extensive	Catastroph	High	County-wide
Dam Failure	Unlikely	Extensive	Catastroph	Low	Map B-6 depicts
Drought	Likely	Extensive	Catastroph	High	County-wide
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Map B-3 depicts
Energy Emergency	Occasional	Extensive	Critical	Medium	County-wide
Extreme Heat	Highly Likely	Extensive	Critical	High	County-wide
Fire	Unlikely	Limited	Limited	Low	County-wide
Floods	Highly Likely	Extensive	Critical	High	Map B-5 depicts
Fog	Likely	Extensive	Limited	Low	County-wide
Hazardous Materials	Likely	Limited	Limited	Low	County-wide
Levee Failure	Occasional	Limited	Limited	Medium	County-wide
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	County-wide
Severe Storms and High Winds	Highly Likely	Significant	Limited	Medium	County-wide
Terrorism/Cyber Terrorism	Unlikely	Extensive	Limited	Low	County-wide
Wildfire	Unlikely	Limited	Limited	Low	Map B-4 depicts

G.3 Risk Assessment

The intent of this section is to assess the TCOE’s vulnerability separate from that of the Operational Area as a whole, which has already been assessed in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, **see Section 5** of the base plan.

Infrastructure and Values at Risk:

This data should only be used as a guideline to determine the overall values in the school districts as the information has some limitations. Generally, the land itself is not a loss. **Table G-3** shows the 2016 inventory for the school districts. All schools are part of the built environment.

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Adult School Program	3110 East Houston	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Alila School	955 E. Tulare Avenue	Tulare	Unknown	Earthquake, Fog
Allensworth Elementary School	3320 Young Rd	Earlimart	Unknown	Earthquake, 100-Year Floodplain, Fog
Alpauch Junior-Senior High/Alpaugh Elementary School	5313 Road 39	Alpaugh	Unknown	Earthquake, Fog, Winter Storm
Alta Vista Elementary School	2293 E Crabtree Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Annie R. Mitchell Elementary School	2121 E Laura St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Bartlett Middle School/Charter Alternative Academy School	355 North "G" Street	Porterville	Unknown	Earthquake, Dam Flood, Fog
Bellevue Elementary School	197 West Bellevue Street	Porterville	Unknown	Earthquake, Dam Flood, Fog
Bravo Lake High School	450 West Sequoia	Woodlake	Unknown	Earthquake, Fog
Buckley Elementary School	2573 W. Westfield	Porterville	Unknown	Earthquake, Dam Flood, Fog
Buena Vista Elementary School	21660 Road 60	Tulare	Unknown	Earthquake, Dam Flood, Fog
Burton Community Day School	264 N Westwood	Porterville	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Burton Elementary School	2375 W Morton Avenue	Porterville	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Burton Middle School	1155 N. Elderwood St.,	Porterville	Unknown	Earthquake, Dam Flood, Fog
Butterfield Charter High School/Porterville Adult School	901 N Mooney Blvd	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Button Pathways Charter Academy	1414 West Olive Avenue.	Porterville	Unknown	Earthquake, Dam Flood, Fog

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Carl Smith Middle School	23825 Avenue 92	Terra Bella	Unknown	Earthquake, Fog
Castle Rock Elementary	360 N Castle Rock St	Woodlake	Unknown	Earthquake, Dam Flood, Fog
Charter Alternative Academy School/Union Elementary School	28050 Road 148	Visalia	Unknown	Earthquake, 500-Year Floodplain, Fog
Charter Home School Academy	31411 Road 160	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Cherry Middle School	540 N Cherry St	Tulare	Unknown	Earthquake, Fog
Citrus High School	261 E Mulberry Avenue	Porterville	Unknown	Earthquake, Fog
Citrus South Tule Elementary School	31374 Success Valley Drive	Porterville	Unknown	Earthquake, Fire
College of The Sequoias	895 W. Gail	Tulare	Unknown	Earthquake, Fog
Columbine Elementary School	2240 Road 160	Delano	Unknown	Earthquake, 500-Year Floodplain, Fog
Conyer Elementary School	999 N Crawford Avenue	Dinuba	Unknown	Earthquake, 500-Year Floodplain, Fog, Winter Storm
Cottonwood Creek Elementary School	4222 S Dans St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Countryside High School	1084 South Pratt Street	Tulare	Unknown	Earthquake, Fog
Crestwood Elementary School	3001 W Whitendale Avenue	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Crowley Elementary School	214 East Ferguson	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Culter-Orosi Community Day School	14198 Avenue 384	Yetttem	Unknown	Earthquake, 500-Year Floodplain, Fog
Cutler Elementary School	40532 Road 128	Cutler	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Winter Storm
Cutler-Orosi Adult School/Esperanza Alternative High School	12623 Avenue 416	Orosi	Unknown	Earthquake, Dam Flood, Winter Storm, Fog

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Cypress Elementary School	1870 South Laspina	Tulare	Unknown	Earthquake, Dam Flood, Fog
Deep Creek Continuation Academy	281 S Farmersville Blvd	Farmersville	Unknown	Earthquake, 100-Year Floodplain, Fog
Dinuba Adult School / Ronald Reagan Academy / Sierra Vista High School	9637 Avenue 196	Tulare	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Dinuba High School	340 E Kern St	Dinuba	Unknown	Earthquake, 100-Year Floodplain, Fog, Winter Storm
Divisadero Middle School	1200 S Divisadero St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Ducor Union Elementary School	23761 Avenue 56	Ducor	Unknown	Earthquake, Fog
Earlimart Elementary School	192 S Church Rd	Earlimart	Unknown	Earthquake, Fog
Earlimart Middle School	599 S Church Rd	Earlimart	Unknown	Earthquake, 500-Year Floodplain, Fog
El Diamante High School	5100 W Whitendale Avenue	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
El Monte Middle School	42111 Road 128	Orosi	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Winter Storm
Elbow Creek Elementary School	32747 Road 138	Visalia	Unknown	Earthquake, Dam Flood, Fog
Exeter Community Day School	1107 East Rocky Hill Drive	Exeter	Unknown	Earthquake, 500-Year Floodplain, Fog
Exeter Union High School	505 Rocky Hill Drive	Exeter	Unknown	Earthquake, 500-Year Floodplain, Fog
Fairview Elementary School	1051 Robin Drive	Visalia	Unknown	Earthquake, 500-Year Floodplain, Flood Dam, Fog
Farmersville High School	631 E Walnut Avenue	Farmersville	Unknown	Earthquake, 500-Year Floodplain, Fog
Farmersville Jr High School	650 N Virginia Avenue	Farmersville	Unknown	Earthquake, 100-Year Floodplain, Fog

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Four Creeks Elementary School	1844 N Burke St	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Francis J White Learning Center	700 North Cypress St.	Woodlake	Unknown	Earthquake, Fog
Freedom Elementary School	575 E Citrus Drive	Farmersville	Unknown	Earthquake, 500-Year Floodplain, Fog
Garden Elementary	640 E. Pleasant	Tulare	Unknown	Earthquake, Fog
George L Snowden School	301 S Farmersville Blvd	Farmersville	Unknown	Earthquake, 100-Year Floodplain, Fog
Golden Oak Elementary School	1700 N Lovers Ln	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Golden Valley Elementary School	41465 Road 127	Orosi	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Winter Storm
Golden West High School	1717 N Mcauliff St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Goshen Elementary School	6505 Avenue 308	Visalia	Unknown	Earthquake, Dam Flood, Fog
Grand View Elementary	39746 Road 64	Dinuba	Unknown	Earthquake, Fog
Granite Hills High School	1701 E Putnam Avenue	Porterville	Unknown	Earthquake, 100-Year Floodplain, Fog
Green Acres Middle School	1147 N Mooney Blvd	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Harmony Magnet Academy	19429 Road 228	Strathmore	Unknown	Earthquake, 100-Year Floodplain, Fog
Heritage Elementary School	915 South Mooney Blvd	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
High School Farm	591 W. Bardsley Avenue.	Tulare	Unknown	Earthquake, Fog
Highland Elementary School	701 N Stevenson St	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Hope Elementary School	613 W Tea Pot Dome	Porterville	Unknown	Earthquake, Dam Flood, Fog
Horizon Community Day School	1051 S Plano St	Porterville	Unknown	Earthquake, Dam Flood, Fog, Fire

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Hot Springs Elementary School	801 W. Gail	Tulare	Unknown	Earthquake, Fog
Houston Elementary School	1200 N Giddings St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Hurley Elementary School	6600 W Hurley Avenue	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Ivanhoe Elementary School	16030 Avenue 332	Ivanhoe	Unknown	Earthquake, Dam Flood, Fog
Je Hester Elementary School	477 E Ash St	Farmersville	Unknown	Earthquake, 500-Year Floodplain, Fog
Jefferson Elementary School	333 N Westwood Avenue	Lindsay	Unknown	Earthquake, Fog
Jefferson Elementary School	1660 E Sierra Way	Dinuba	Unknown	Earthquake, 500-Year Floodplain, Fog, Winter Storm
Jim Maples Academy	252 N. Westwood	Porterville	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
John F Kennedy 6Th Grade Academy	814 S Sowell St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
John J Cairns High School	467 E Honolulu St	Lindsay	Unknown	Earthquake, Fog
John J Doyle Elementary School	1045 E Orange Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Johnsondale Elementary School	755 E. Tulare Avenue.	Tulare	Unknown	Earthquake, Fog
Kaweah High School, Exeter Virtual High School	21215 Avenue 300	Exeter	Unknown	Earthquake, 100-Year Floodplain, Fog
Kings River Union Elementary School	3961 Avenue 400	Kingsburg	Unknown	Earthquake, Fog
Kohn Elementary School	500 S. Laspina	Tulare	Unknown	Earthquake, Dam Flood, Fog
La Joya Middle School	4711 W La Vida Avenue	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
La Sierra High School - Military	1735 E Houston Avenue	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Academy/La Sierra Junior Academy				
La Sierra High School - Porterville Campus	1414 W Olive Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Liberty Elementary School	11535 Avenue 264	Visalia	Unknown	Earthquake, Fog
Lincoln Elementary School	900 S Conyer St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lincoln Elementary School	9364 Road 238	Terra Bella	Unknown	Earthquake, Fog
Lincoln Elementary School	960 N Newcomb St	Porterville	Unknown	Earthquake, Fog
Lincoln Elementary School	333 S D St	Exeter	Unknown	Earthquake, 500-Year Floodplain, Fog
Lindsay Community Day School	519 East Honolulu St.	Lindsay	Unknown	Earthquake, Fog
Lindsay High School	1701 E Tulare Rd	Lindsay	Unknown	Earthquake, 100-Year Floodplain, Fog
Linwood Elementary School	3129 S Linwood St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Live Oak Middle School	980 N. Laspina	Tulare	Unknown	Earthquake, Fog
Los Robles Elementary School	500 E Mulberry Avenue	Porterville	Unknown	Earthquake, Fog
Los Tules Middle School	Po Box 38 Mountain Road 56	Hot Springs	Unknown	Earthquake, Fog
Lovell Continuation High School	12724 Avenue 392	Cutler	Unknown	Earthquake, Fog
Manuel F. Hernandez Elementary School	2133 North Leila Street	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Maple Elementary School	640 W. Cross	Tulare	Unknown	Earthquake, Fog
Mid-County Community School	2101 N Shirk Rd	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Mineral King Elementary School	3333 E Kaweah Avenue	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Mission Oak High School	3442 E. Bardsley Avenue.	Tulare	Unknown	Earthquake, Dam Flood, Fog
Mission Valley Elementary School	1695 Bella Oaks	Tulare	Unknown	Earthquake, Fog
Monache High School	850 N. Eaton Avenue	Dinuba	Unknown	Earthquake, 500-Year Floodplain, Fog, Winter Storm
Monson-Sultana School	10643 Avenue 416	Sultana	Unknown	Earthquake, Fog, Winter Storm
Monte Vista Elementary School	701 W Westfield	Porterville	Unknown	Earthquake, Dam Flood, Fog
Mount Whitney High School	909 E. Cedar	Tulare	Unknown	Earthquake, Dam Flood, Fog
Mountain View Elementary School	2021 S Encina St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Mulcahy Middle School	1001 W. Sonora	Tulare	Unknown	Earthquake, Fog
Oak Grove Elementary School	4445 W Ferguson Avenue	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Oak Grove Elementary School	1873 W Mulberry Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Oak Valley Elementary School	24500 Road 68	Tulare	Unknown	Earthquake, Fog
Olive Street Elementary School	255 W Olive Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Orosi High School	41815 Road 128	Orosi	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Winter Storm
Outside Creek Elementary School	26452 Road 164	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Palm Elementary School	12915 Avenue 419	Orosi	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog, Winter Storm
Palo Verde Elementary School	9637 Avenue 196	Tulare	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Pinkham Elementary School	2200 E Tulare Avenue	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Pioneer Middle School	225 E College Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Pixley Elementary School	300 N. School St	Pixley	Unknown	Earthquake, 100-Year Floodplain, Fog
Pixley Middle School	1520 E. Court Street	Pixley	Unknown	Earthquake, Fog
Pleasant Elementary School	1855 W. Pleasant	Tulare	Unknown	Earthquake, Fog
Pleasant View Elementary School	18900 Avenue 145	Porterville	Unknown	Earthquake, Dam Flood, Fog
Pleasant View West School	14004 Road 184	Porterville	Unknown	Earthquake, Dam Flood, Fog
Porterville College	100 E College	Porterville	Unknown	Earthquake, Dam Flood, Fog
Porterville High School	465 W Olive Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Prospect Education Center	645 N Prospect	Porterville	Unknown	Earthquake, Dam Flood, Fog
Redwood High School	1001 W Main St	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Richgrove Elementary School	20908 Grove Drive	Richgrove	Unknown	Earthquake, Fog
River Bend Elementary School	1800 N Lovers Ln	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Roche Avenue Elementary School	388 N Roche Avenue	Porterville	Unknown	Earthquake, Fog
Rockford Elementary School	14983 Road 208	Porterville	Unknown	Earthquake, Dam Flood, Fog
Rocky Hill Elementary School	313 Sequoia Drive	Exeter	Unknown	Earthquake, 500-Year Floodplain, Fog
Roosevelt Elementary School	1311 N. Euclid Avenue	Dinuba	Unknown	Earthquake, 100-Year Floodplain, Fog, Winter Storm
Roosevelt Elementary School	1046 W. Sonora	Tulare	Unknown	Earthquake, Fog
Royal Oaks Elementary School	1323 S Clover St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Santa Fe Elementary School	286 E Orange Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Sausalito Elementary School	17615 Avenue 104	Terra Bella	Unknown	Earthquake, 100-Year Floodplain, Fog

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Sequoia High School	900 West Pioneer Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Sequoia Middle School	1450 W Castle	Porterville	Unknown	Earthquake, Dam Flood, Fog
Sequoia Union School	23958 Avenue 324	Lemon Cove	Unknown	Earthquake, Fire
Sierra Elementary School	50151 Whitaker Forest Rd	Badger	Unknown	Earthquake, Winter Storm, Snow, Wind, Fall, Fire
Sierra Vista High School	8470 Avenue 406	Dinuba	Unknown	Earthquake, Fog
Springville Union Elementary School	35424 Ward Avenue	Springville	Unknown	Earthquake, Winter Storm, Fire
Steve Garvey Junior High School	340 N Harvard Avenue	Lindsay	Unknown	Earthquake, 100-Year Floodplain, Fog
Stone Corral Elementary School	15590 Avenue 383	Visalia	Unknown	Earthquake, 500-Year Floodplain, Fog
Strathmore Union Elementary	23024 Avenue 198	Strathmore	Unknown	Earthquake, Fog
Strathmore High School	22568 Avenue 196	Strathmore	Unknown	Earthquake, Fog
Strathmore Middle School	19840 Orange Belt Drive	Strathmore	Unknown	Earthquake, Fog
Success Community School	14871 Road 192	Porterville	Unknown	Earthquake, Dam Flood, Fog
Summit Charter Academy - Mathew Campus	175 S Mathew St	Porterville	Unknown	Earthquake, Dam Flood, Fog
Summit Charter Collegiate Academy	15550 Redwood St	Porterville	Unknown	Earthquake, Dam Flood, Fog
Sundale School	13990 Avenue 240	Tulare	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sunnyside Union Elementary School	21644 Avenue 196	Strathmore	Unknown	Earthquake, Fog
Superior Community School	1105 South O St.	Tulare	Unknown	Earthquake, Dam Flood, Fog
Terra Bella Elementary School	851 N Stanford Avenue	Lindsay	Unknown	Earthquake, 100-Year Floodplain, Fog
Three Rivers Elementary School	41932 Sierra Drive	Three Rivers	Unknown	Earthquake, 500-Year Floodplain, Fire

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
Tipton Elementary School	370 N Evans Rd	Tipton	Unknown	Earthquake, Fog
Traver Joint Elementary School	36736 Canal Drive	Traver	Unknown	Earthquake, 100-Year Floodplain, Fog
Tulare Adult School	575 W. Maple Avenue.	Tulare	Unknown	Earthquake, Fog
Tulare City Community Day School	601 Delwood St	Tulare	Unknown	Earthquake, Fog
Tulare Union High School	Route 1 Box 104	Kernville	Unknown	Earthquake, Fog
Tulare Western High School	824 W Maple	Tulare	Unknown	Earthquake, Fog
Valley High School / Tulare Tech Prep School	737 W. Bardsley Avenue.	Tulare	Unknown	Earthquake, Fog
Valley Oak Middle School	2000 N Lovers Ln	Visalia	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Vandalia Elem School	271 E College Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Veva Blunt Elementary School	1119 S Chinowth St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Vine Street Community Day School	140 S C St	Porterville	Unknown	Earthquake, Dam Flood, Fog
Visalia Charter Independent Study	1821 West Meadow Lane	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Visalia Technical Education	2049 South Linwood Street	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Washington Elementary School	500 S Garden St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Washington Elementary School	451 E Samoa St	Lindsay	Unknown	Earthquake, Fog
Washington Intermediate School	1150 N Hayes Avenue	Dinuba	Unknown	Earthquake, 500-Year Floodplain, Fog, Winter Storm
Waukena Joint Union Elementary School	19113 Road 28	Tulare	Unknown	Earthquake, Dam Flood, Fog, Winter Storm

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Table G-3: List of School Properties				
Name	Address	City	Value	Hazards
West Putnam Elementary School	1345 W Putnam Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Westfield Elem School	1151 W Pioneer Avenue	Porterville	Unknown	Earthquake, Dam Flood, Fog
Willow Glen Elementary School	310 N Akers St	Visalia	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Wilson Elementary School	850 W. Washington Avenue	Earlimart	Unknown	Earthquake, Fog
Wilson Elementary School	305 E Kamm Avenue	Dinuba	Unknown	Earthquake, Fog
Wilson Middle School	265 Albert Avenue	Exeter	Unknown	Earthquake, 500-Year Floodplain, Fog
Woodlake Union High School	400 West Whitney Avenue.	Woodlake	Unknown	Earthquake, Fog
Woodlake Valley Middle School	497 N Palm St	Woodlake	Unknown	Earthquake, 100-Year Floodplain, Fog
Woodville Elementary School	16541 Road 168	Porterville	Unknown	Earthquake, Dam Flood, Fog
Yettem Continuation High School	13198 Avenue 484	Yettem	Unknown	Earthquake, 500-Year Floodplain, Fog

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Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the TCOE by evaluating the inventory of existing property exposed to a hazard. The population and economy are considered as part of the overall County analysis. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes those hazards that are natural and terrorism.

Populations at Risk

The County estimated population for 2017 was 460,437. Approximately 20.9% are between the ages of 5 and 18. While not all of that segment attends TCOE school district institutions, the school day population is approximately 90,000 students, plus additional teachers and other staff.

Economic Risks

The economic risks associated with loss of schools extends beyond the value of the buildings. Schools serve as centers of the community and provide recreational, social and cultural benefits. During emergencies, schools serve as shelters. In all communities, schools provide child care, a critical service for single parent and two working parent families. Additionally, schools support nutritional, access and function needs, and enrichment services. These economic benefits, while tangible, are difficult to quantify.

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table G-4** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

Table G-4: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded</p>

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	that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.
Dam Inundation	<p><u>Impacts:</u> Success and Terminus Dams have large inundation areas</p> <p><u>Costs:</u> A rapid failure of Success or Terminus Dam would result in catastrophic loss of life and injury, and property loss. Map B-6 depicts the potential footprint for dam inundation. Specifics of the inundation curves are contained in the dam Emergency Action Plans which are limited distribution documents. The potential injury and death from a short notice dam failure could be in the 10,000s. Total losses within the County to school facilities could exceed \$1,000,000,000.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The County is dependent on imported water for most of its needs. During prolonged droughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from drought to the County and its communities are difficult to quantify and are dependent upon drought duration and severity. In addition to increased costs for water, prolonged drought may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the County's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p> <p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Flood	<p><u>Impacts:</u> Flooding occurs throughout the County during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding.</p> <p><u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood costs to County school districts could be in excess of \$1,000,000,000.</p>
Terrorism	<p><u>Impacts:</u> Terrorist attacks against schools are an unfortunate but real potential vulnerability. Previous incidents have targeted single facilities and resulted in mass fatalities. Likely impacts from a terrorist attack on a school are multiple deaths and injuries, damage to facilities and loss of confidence in community cohesion.</p> <p><u>Costs:</u> The costs of terrorist attacks are difficult to quantify. In addition to emergency services response costs and damage to facilities, the community costs are real but intangible. Individual costs include medical and funeral expenses. Long term increased law enforcement and security costs are also likely to occur.</p>

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Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Tulare:

- Climate Change
- Dam Inundation
- Drought
- Extreme heat
- Flood
- Terrorism

G.4 Capabilities Assessment

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's "existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools."

Elements

C1. Does the plan document the jurisdiction's existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The reason for conducting a capability assessment is to identify TCOE's capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of TCOE's capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of TCOE. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

Table G-5 provides a list of TCOE's capabilities:

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Table G-5: TCOE's Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Office of Education will assist all agencies in emergency situations	Describes what the County Office of Education and schools that house Tulare County Office of Education's programs, actions will be during a response to an emergency. The office will follow the emergency plans of the district in which the facilities are located.	All	No	Administrative
Tulare County Superintendent of Schools Pandemic Influenza Crisis Response Plan	Describes what the response will be between Tulare County Superintendent of Schools, Tulare County Public Health Department and Tulare County Office of Emergency Services during the different stages of a pandemic influenza crisis as it relates to schools.		No	Administrative
Tulare County Office of Education Comprehensive Safety Plan	Describes policies and procedures for maximizing school safety to create a positive learning environment that teaches strategies for violence prevention and emphasizes high expectations for student conduct.		No	Administrative
Tulare County School Districts	Individual Districts have developed their own safety plans applicable to their school sites. Tulare County Office of Education employees will follow the District safety plans when on other District sites.		Yes	Administrative
Tulare County Office of Education, Assistant Superintendent	Under the direction of the Superintendent, plan, organize, control, and direct the activities and operations of the Business Services Office, coordinate assigned activities with other divisions, departments, school districts, and outside agencies; maintain the fiscal integrity and solvency of the organization; assure programs are operating within the appropriate fiscal parameters and remain in compliance with the appropriate federal, state, or local regulations.		No	Administrative
Tulare County Office of Education, Facilities Coordinator	Under the direction of the Superintendent/Designee, coordinate and develop short- and long-range plans for school housing facilities; plan, organize, and coordinate the activities and operations of the facilities and planning functions, including new construction, renovation, and leasing; act as a liaison between the County Office of		No	Administrative

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Table G-5: TCOE's Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	Education and the agencies of the State, County, and City governments.			
Tulare County Office of Education, Business Services Administrative Assistant	Under the direction of Chief Business and Administrative Services Officer, perform highly responsible and confidential secretarial and administrative assistant duties to relieve the administrator of a variety of administrative details; interpret policies and regulations to officials, staff, and the public; plan, coordinate, and organize office activities and coordinate flow of communications and information for the assigned administrators, maintain confidentiality of sensitive and privileged information.		No	Administrative
Tulare County Office of Education, Chief Information Technology Officer	Under the direction of the Assistant Superintendent, plan, organize, control and direct strategic planning of management information services for the Tulare County Superintendent of Schools and the school districts of Tulare County; direct and support the use of personal computer hardware and software, computer, and computer-related needs of the TCOE Local Area Network and Wide Area Network; direct the maintenance and programming of the electronic communications systems for the County-wide Financial System; direct the operations and maintenance of the TCOE communications network.	All	No	Administrative

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G.5 Mitigation Strategy

Table G-6 lists the TCOE specific mitigation actions from the 2011 Plan and provides their status.

Table G-6. Tulare County Office of Education, Mitigation Action Plan						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
1	Y	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	B, C, D, E	Not Applicable	TCOE	Ongoing: Mitigation Action 6 in 2017 Plan.
3	Y	Seismically retrofit or replace emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	B, C, D, E	Schools designated for sheltering	TCOE	Ongoing: Mitigation Action 7 in 2017 Plan.
8	Y	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	B, C, D, E	Various Schools in the following districts: Allensworth, Dinuba Unified, Exeter High, Farmersville Unified, Lindsay Unified, Palo Verde, Pixley, Saucelito, Terra Bella, Travel, Tulare City, Visalia Unified and Woodlake Elementary	TCOE	Ongoing: Mitigation Action 8 in 2017 Plan.

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10	Y	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or DWR.	B, C, D, E	Various Schools in the following districts: Alta Vista, Buena Vista, Burton, Cutler- Orosi Unified, Dinuba Unified, Exeter Elementary, Hope, Lindsay Unified, Outside Creek, Palo Verde, Pleasant View, Porterville Unified, Sequoia Union, Sundale, Tulare City, Tulare High, Visalia, Waukena, and Woodville	TCOE	Ongoing: Mitigation Action 9 in 2017 Plan.
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Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

The TCOE mitigation strategies from the 2011 HMP are still relevant to this update. **Table G-7** contains an updated set of potential mitigation strategies for new Plan. Mitigation actions were derived from numerous sources including the Capital Improvement Plan and input from the public and stakeholders.

Table G-7: TCOE Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.

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2	Integrate the County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
4	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
5	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or State responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
6	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
7	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.
8	Maintain emergency evacuation plans all facilities.	FL	Mit.
10	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
11	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.

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12	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
13	Tulare County Office of Education Inspection. Inspection of facilities and grounds to identify areas of repair.	All	Mit.
14	Securing all bookcases and cabinets to walls and assessing rooms for falling objects. Securing all bookcases and cabinets to walls and assessing rooms for falling objects.	EQ	Mit.
15	Encourage Districts to participate in statewide Earthquake and Evacuation drill. These activities also encourage districts to review school sites for safe areas and preparing classrooms from falling debris. Encourage Districts to participate in statewide Earthquake and Evacuation drill. These activities also encourage districts to review school sites for safe areas and preparing classrooms from falling debris.	EQ	Mit.
16	Ensure basins at sites are clear to provide capacity for high precipitation events. Ensure basins at sites are clear to provide capacity for high precipitation events.	FL	Mit.
17	Encourage Districts to attend Active Shooter trainings and provide that training to District personnel. Encourage Districts to attend Active Shooter trainings and provide that training to District personnel.	CT	Prep.

All of TCOE's mitigation strategies from the 2011 HMP are still relevant to this update. **Table G-8** contains an updated set of current and future TCOE-specific mitigation actions.

Table G-8 TCOE - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Inspection of facilities and grounds to identify areas of repair.	All Districts	Unknown	High	One year

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2	Secure all bookcases and cabinets to walls and assess rooms for falling objects.	All Districts	Unknown	High	One year
3	Encourage Districts to participate in statewide Earthquake and Evacuation drill. These activities also encourage districts to review school sites for safe areas and preparing classrooms from falling debris.	All Districts	Unknown	High	One year
4	Encourage Districts to attend Active Shooter trainings and provide that training to District personnel. Encourage Districts to attend Active Shooter trainings and provide that training to District personnel.	All Districts	Unknown	High	One year

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. For the TCOE this includes Tulare County Office of Education Comprehensive Safety Plan. The term “consistency” in planning terms means that the general plan and the other plans have similar community goals and policies, that they advocate similar land use patterns, and they are consistent in their guidance of direction and rate of growth.

Some of the plans listed in the Capabilities Assessment mentioned in Section G.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the TCOE Annex Tulare County Office of Education Comprehensive Safety Plan.
- Resource for developing and/or updating emergency operations plans emergency response plans, etc.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each school district will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate.

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Annex H Tule River Tribe

The Tule River Indian Tribe (hereafter referred to as the Tule River Tribe) is a Federally-recognized tribe that inhabits the Tule River Indian Reservation, which was established in 1873. **Figure H-1** provides a map of the Reservation.

H.1 COMMUNITY PROFILE

Geography and Climate: Established in 1873, the Tule River Indian Reservation is estimated to cover almost 85 square miles of rugged foothill lands of the Sierra Nevada Mountains. The reservation is located in a remote rural area approximately 20 miles from the nearest town of Porterville. The Reservation is accessible only by one winding paved road that follows the meandering South Fork of the Tule River. It is isolated in a rugged setting that allows for privacy and for development independent from urban or recreational sprawl. The Tribe also owns 40 acres in the Porterville Airport Industrial Park and 79.9 acres in the foothill scenic development corridor along Highway 190.

Government: The Tule River Tribal Council, which was created by the constitution and bylaws of the Tule River Tribe and approved January 15, 1936, conducts executive, legislative, and business functions. The Tribal Council consists of nine council members elected by secret ballot. The elected officials then decide who will perform the functions of chairman, vice chairman, secretary, and treasurer.

Population and demographics: The Tule River Tribe has a population of 997. The Tribe consists of Yokut, Western Mono, and Tubatulabal peoples.

Economy: The Tule River Tribe has three enterprises that assist the tribe in making their community a better place. Through these enterprises, the Tule River Tribe is able to be a self-sufficient entity improving the everyday lives of their members. The enterprises are:

- Eagle Mountain Casino is the only full-service casino in Tulare County offering local residents gaming 24 hours a day
- Tule River Aero-Industries is a 20,000-square foot facility that is a major engine and airframe repair station equipped with a full line aircraft sales department
- Eagle Feather Trading Post is one of the largest convenience stores in Tulare County, located on Hwy 190 just above Lake Success. The store has a full line of groceries; cold beer, wine, fishing and bait supplies

Development in hazard prone areas:

Because population growth was less than two percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the County. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire City. Development in the City, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

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H.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: While the Tule River Tribe faces many of the hazards that are present in the County, the severity of the hazards is different. Hazards in the Reservation with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include dam failure, earthquake, earthquake liquefaction - subsidence, flood, civil unrest, levee failure and terrorism/cyber terrorism. Because of its location in the foothills of the Sierra Nevada Mountains, the Reservation faces more severe threat from wildland fires and winter storms. **Table H-1** below provides a summary of hazards. There are no hazards that are unique to the Tribe.

Table H-1: Tule River Tribe Summary of Hazards					
Hazard	Frequency	Extent	Magnitude	Significance	Location
Climate Change	Highly likely	Extensive	Catastrophic	High	Entire jurisdiction
Drought	Likely	Extensive	Catastrophic	High	Entire jurisdiction
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire jurisdiction
Extreme Heat	Highly Likely	Extensive	Critical	High	Entire jurisdiction
Fire	Highly Likely	Extensive	Limited	Medium	Entire jurisdiction
Hazardous Materials	Likely	Limited	Limited	Low	Entire jurisdiction
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire jurisdiction
Severe Storms and High Winds	Highly Likely	Significant	Critical	Medium	Entire jurisdiction
Wildfire	Highly Likely	Extensive	Critical	High	Map B-4 depicts

Guidelines for Hazard Rankings

Frequency of Occurrence:

Highly Likely	Near 100% probability in next year
Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

Potential Magnitude:

Catastrophic	More than 50% of area affected
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Significance (subjective):

low, medium, high

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Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

H.3 RISK ASSESSMENT

The intent of this section is to assess the Tule River Tribe's vulnerability separate from that of the Operational Area as a whole, which has analyzed and described in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, see **Section 5** of the base plan.

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Infrastructure and Values at Risk:

The following data was provided by the emergency manager. This data should only be used as a guideline to determine overall values as the information has some limitations. Generally, the land itself is not a loss. **Table H-2** shows the 2016 inventory for the Tribe.

Table H-2: Tule River Tribe Risk Assessment			
Address	Address	Value	Hazards
Church on The Hill (Church of God)	190 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Elder Center	217 S. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Matter De La Rosa Church	350 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Alcoholism Program (TRAP)	1012 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Veterans Center / Amvets	356 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Tribe Recreation Department / Community Gymnasium	308 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Child Care Center	186 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Towanits Indian Education Center	310 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Study Center	568 W. Olive Avenue	Unknown	Earthquake, Freezing, Flood, Fire, Extreme Heat, Drought, Dam Flood, Fog
Tule River W.I.O.A. Workforce Investment Opportunity Act Training and Employment Program (center)	129 S. Reservation Road Suite 177	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Fire Station	299 S. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Justice Center	129 S. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought

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Table H-2: Tule River Tribe Risk Assessment

Address	Address	Value	Hazards
Department of Public Safety	129 S. Reservation Road Suite 130	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Eagle Feather Trading Post	31071 Highway 190	Unknown	Earthquake, 100-Year Floodplain, Fog, Fire, Extreme heat, Drought
Tule River Economic Development Corporation TREDC	31071 Highway 190	Unknown	Earthquake, Freezing, Flood, Fire, Extreme Heat, Drought, Dam Flood, Fog
Eagle Mountain Casino	681 S. Tule Road	Unknown	Earthquake, Freezing, Fire
Eagle Mountain Casino Warehouse Facility	Latitude and Longitude	Unknown	Earthquake, Dam Flood, Fog
McCarthy Ranch	32657 Reservation Road	Unknown	Earthquake, Fire
Department of Environmental Protection	PO Box 589 Porterville	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Owens Valley Career Development Center / TANF	168 N. Reservation Road	Unknown	Earthquake, Freezing, Fire
Tule River Aero Industries	2011 Wildcat Way	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Economic Development Corporation	2780 W Yowlumne Avenue # A	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Housing Authority	324 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Maintenance Shop	298 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Natural Resources (Admin)	1010 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Public Works	487 S. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Telecommunications Shed	364 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Tribal Administration Building	340 N. Reservation Rd	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Yokuts Custom Woodworking	Latitude/Longitude	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Water Treatment Plant	168 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought

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Table H-2: Tule River Tribe Risk Assessment			
Address	Address	Value	Hazards
Tule River Health Center Fiscal Dept. Purchase Referred Care - PRC	400 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Indian Health Center	380 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Indian Health Center – Behavioral Health	380 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Yokuts Language Project Building	304 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Oak Pit Steak House Restaurant	615 N. Main Street Porterville	Unknown	Earthquake, Freezing, Flood, Fire, Extreme Heat, Drought, Dam Flood, Fog
Tule River Housing Rehabilitation Program	557 S. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Water Treatment Plant Office	168 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Telecommunications Central Office	364 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River Natural Resources Range Shop	360 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Vacant Building	302 N. Reservation Road	Unknown	Earthquake, Freezing, Severe Winter Storm, Snow, Flood, Fire, Extreme Heat, Drought
Tule River USDA Food Distribution	2780 W. Yowlumne Ave Porterville Suite A	Unknown	Earthquake, Freezing, Flood, Fire, Extreme Heat, Drought, Dam Flood, Fog
Tule River Graphics	2780 W. Yowlumne Ave Porterville Suite B	Unknown	Earthquake, Freezing, Flood, Fire, Extreme Heat, Drought, Dam Flood, Fog
Eagle Mountain Casino Warehouse	2760 W. Yowlumne Ave Porterville Suite B	Unknown	Earthquake, Freezing, Flood, Fire, Extreme Heat, Drought, Dam Flood, Fog
Eagle Mountain Casino Warriors Cage	2760 W. Yowlumne Ave Porterville Suite A	Unknown	Earthquake, Freezing, Flood, Fire, Extreme Heat, Drought, Dam Flood, Fog

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Critical Facilities: The Tule River Tribe has identified the following infrastructure in **Table H-3** as critical facilities:

Table H-3: Tule River Tribe Critical Facilities		
Facility	Address	Value
Tule River Fire Station	299 S. Reservation Road	Unknown
Tule River Justice Center	129 S. Reservation Road	Unknown
Department of Public Safety	129 S. Reservation Road Suite 130	Unknown
Tule River Maintenance Shop	298 N. Reservation Road	Unknown
Tule River Natural Resources Forestry Office / Shop	300 N. Reservation Road	Unknown
Tule River Public Works	487 S. Reservation Road	Unknown
Tule River Telecommunications Shed	364 N. Reservation Road	Unknown
Tule River Tribal Administration Building	340 N. Reservation Rd	Unknown
Tule River Maintenance Shop	298 N. Reservation Road	Unknown
Tule River Natural Resources (Admin)	1010 N. Reservation Road	Unknown
Water Treatment Plant Office	168 N. Reservation Road	Unknown
Tule River Telecommunications Central Office	364 N. Reservation Road	Unknown

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the Tribal lands by evaluating the inventory of existing property exposed to a hazard. The population and economy are considered as part of the overall County analysis. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes those hazards that are natural and terrorism.

Populations at Risk

The Tule River Tribe has a population of 997.

Economic Risks

Economic risks are associated with damage or loss of the Tribes three major revenue producing enterprises. They are:

- Eagle Mountain Casino is the only full-service casino in Tulare County offering local residents gaming 24 hours a day
- Tule River Aero-Industries is a 20,000-square foot facility that is a major engine and airframe repair station equipped with a full line aircraft sales department
- Eagle Feather Trading Post is one of the largest convenience stores in Tulare County, located on Hwy 190 just above Lake Success. The store has a full line of groceries; cold beer, wine, fishing and bait supplies

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Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table H-4** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

Table H-4: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The County is dependent on imported water for most of its needs. During prolonged draughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from draught to the County and its communities are difficult to quantify and are dependent upon draught duration and severity. In addition to increased costs for water, prolonged draught may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the County's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p>

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	<u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.
Winter Storm	<u>Impacts:</u> Winter storms may result in road closures and damage to roadways and bridges. <u>Costs:</u> Costs to the Tribe will include emergency response and repair of damaged facilities. Costs are likely to be less than \$10,000,000.

Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Tulare:

- Climate Change
- Drought
- Extreme heat
- Wildland Fire
- Winter Storms

Wildland fire poses a critical threat to the Tule River Tribe due to its geography and remoteness. A list of recent wildland fire is detailed in **Table H-5** below

Table H-5: Tule River Tribe Recent Wildland Fires			
Fire	Dates burned	Acres burned	Damage/Casualties
Finger Fire	06/23/10 – 06/28/10	46	0/0
Station Fire	06/27/10 – 07/02/10	150	0/0
Garfield Fire	06/23/11 – 06/23/11	20	0/0
Chimney Fire	06/24/11 – 06/24/11	27	0/0
Eagle Fire	06/25/11 – 06/25/11	37	0/0
Juliet Fire	07/30/11 – 07/30/11	255	0/0
Hammer Fire	06/15/13 – 06/15/13	13	0/0
Cow 2	07/24/13 – 07/24/13	39	0/1: Injured smoke jumper
Windy	08/31/13 – 08/31/13	231	0/0

H.4 CAPABILITIES ASSESSMENT

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's “existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.”

Elements

C1. Does the plan document the jurisdiction’s existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The reason for conducting a capability assessment is to identify the Tule River Tribe’s capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of the Tribe’s capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management practices and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the Tribe. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

Tables H-6 through H-9 provide a list of the Tribe’s capabilities.

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Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table H-6: Tule River Tribe Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Emergency Operations Plan (Draft)	<p>This plan identifies natural and man- made disasters, such as major fires, winter storms, earthquakes and floods; technological emergencies involving hazardous material releases; and other incidences requiring assistance under Emergency Planning and Community Right to Know Act (EPCRA) are included.</p> <p>The MJLHMP will be used as an essential tool to update the Tule River Tribe's EOP. Cal OES requires that EOPs describe applicable hazards as part of the Plan. The latest MJLHMP hazards descriptions will be included. Mitigation actions that are preparedness and response in nature will be analyzed for applicability to include in the description of EOP processes and procedures.</p>	All		Planning
Integrated Resource Management Plan (Draft)	The purpose of the IRMP is to give guidance to Natural Resource Administrators to mitigate hazards related to Natural and Cultural Resources			Planning
Forest Management Plan (FMP)	<p>The purpose of the FMP is to give guidance to mitigate wildfires within the Forest of the TRIR.</p> <p>Descriptions of the wildfire hazard and hazard maps will be used to update the FMP.</p>	Fire		Planning
Wildland Fire Management Plan (Draft)	The purpose of the WFMP is to address hazards and mitigation measures related to wildland fires within the boundaries of the TRIR.	Fire		Planning

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Table H-6: Tule River Tribe Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Fire Prevention Plan (Draft)	<p>The purpose of the FPP is to address hazards associated with wildfires, especially pyromaniac incidents and mitigation strategies.</p> <p>Descriptions of the wildfire hazard and hazard maps will be used to update the FMP.</p>	Fire		Planning

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Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table H-7: Tule River Tribe Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Constitution and Bylaws of the Tule River Indian Tribe	This document explains the authorities granted to the Tribal Council. Specific to hazard mitigation, the Council's ability to address the following topics is discussed: administration of funds or property, the ability to levy taxes and license fees, declaration of ordinances for the purpose of safeguarding the peace and safety of residents and assignments of tribal land			Administrative
Tule River Tribal Council – Public Works	Maintains and operates a wide range of local equipment and facilities as well as providing assistance to members of the public. These include providing sufficient clean fresh water, reliable sewer services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.			Technical
Tule River Tribal Council – Tule River Fire Department	Maintains and updates the Emergency Operations Plan for the local jurisdiction. In addition, coordinates local response and relief activities within the Emergency Operation Center, and works closely with County, State, and Federal partners to support planning and training and to provide information and coordinate assistance.			Technical
Tule River Tribal Council – Tribal Police/Tribal Security	Implements response and recovery efforts after the occurrence of human caused and natural hazards.			Technical
Tule River Tribal Council – Environmental Department	Oversees various resource activities to include but not limited to, safe drinking water, hazardous waste, and other environmental related activities.			Technical

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Table H-7: Tule River Tribe Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tule River Tribal Council – Natural Resource Department	Manages natural resources within the Reservation.			Technical

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Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table H-8: Tule River Tribe Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed		Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tribal General Fund	Program operations and specific projects	All		Fiscal
Bureau of Indian Affairs Aid to Tribal Governments	Support general Tribal government operations, maintain up-to-date Tribal enrollment, conduct Tribal elections, and develop appropriate Tribal policies, legislation, and regulations.	All		Fiscal
Federal Highway Administration Indian Reservation Roads Transportation Funding	Construct and improve roads, bridges, and transit facilities leading to, and within, Indian reservations or other Indian lands to provide safe access through hazard-prone areas.	All		Fiscal
U.S. Department of Housing and Urban Development Indian Community Development Block Grant Program	Provide critical housing and community development resources to aid disaster recovery.	All		Fiscal
Imminent Threat, Indian Community Development Block Grant Program	Alleviate or remove imminent threats to health or safety (e.g., drought).	All		Fiscal
Sierra Nevada Conservancy Proposition 84	Fund water quality projects, including all types of nonpoint source projects, watershed protection or restoration projects, estuary management projects, and more traditional municipal wastewater treatment projects.	All		Fiscal

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Education and Outreach: Programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

Table H-9: Tule River Tribe Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach
Tule River Tribe Website http://www.tulerivertribe-nsn.gov/ and other social media	Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts. The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.	All		Education and Outreach

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Previous and Ongoing Mitigation Activities

H.5 MITIGATION STRATEGY

Table H-10 lists the Tule River Tribe's specific mitigation actions from the 2011 Plan and provides their status.

Table H-10 Tule River Tribe - Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
18	Y	Create a vegetation management program that provides vegetation management services to elderly, disabled, or low-income property owners who lack the resources to remove flammable vegetation from around their homes.	A, B, C, D, E	Unknown	Fire	Ongoing: Mitigation Action 1 in 2017 Plan.
19	Y	Develop a community wildfire mitigation plan that identifies and prioritizes areas for hazard fuel reduction treatments, and recommend the types of methods of treatments.	A, B, C, D, E	Unknown	Fire	Ongoing: Mitigation Action 2 in 2017 Plan.
21	Y	Reinforce Tribal bridges and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	A, B, C, D, E	Unknown	Public Works	Ongoing: Mitigation Action 3 in 2017 Plan.

Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

The Tule River Tribe's mitigation strategy 2 from the 2011 HMP is still relevant to this update. **Table F-10** contains an updated set of potential mitigation strategies for new Plan. Mitigation actions were derived from numerous sources including the General Plan, Tribal Code, Capital Improvement Plan and input from the public and stakeholders.

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Table H-11: Tule River Tribe Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the Tulare County MJLHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
5	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
6	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or state responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
7	Reinforce ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.

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8	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
9	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
10	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
11	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
12	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
13	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
14	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.
15	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.

All of TCOE's mitigation strategies from the 2011 HMP are still relevant to this update. **Table H-12** contains an updated set of current and future TCOE-specific mitigation actions.

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Table H-12 Tule River Indian Tribe - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Create a vegetation management program that provides vegetation management services to elderly, disabled, or low-income property owners who lack the resources to remove flammable vegetation from around their homes.	Fire Department	Unknown	High	One year
2	Develop a community wildfire mitigation plan that identifies and prioritizes areas for hazard fuel reduction treatments, and recommend the types of methods of treatments.	Fire Department	Unknown	High	2-5 Years
3	Reinforce Tribal bridges and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	Public Works	Unknown	High	2-5 Years

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. For the Tule River Tribe, these other planning documents include the Emergency Operations Plan (Draft), Integrated Resource Management Plan (Draft), Forest Management Plan (FMP), Wildland Fire Management Plan (Draft) and Fire Prevention Plan (Draft). The term “consistency” in planning terms means that the general plan and the other plans have similar community goals and policies, that they advocate similar land use patterns, and they are consistent in their guidance of direction and rate of growth.

Many of the plans listed in the Capabilities Assessment mentioned in Section H.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Tule River Tribe Annex into the EOP and Integrated Resource Management Plan
- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices

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The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate.

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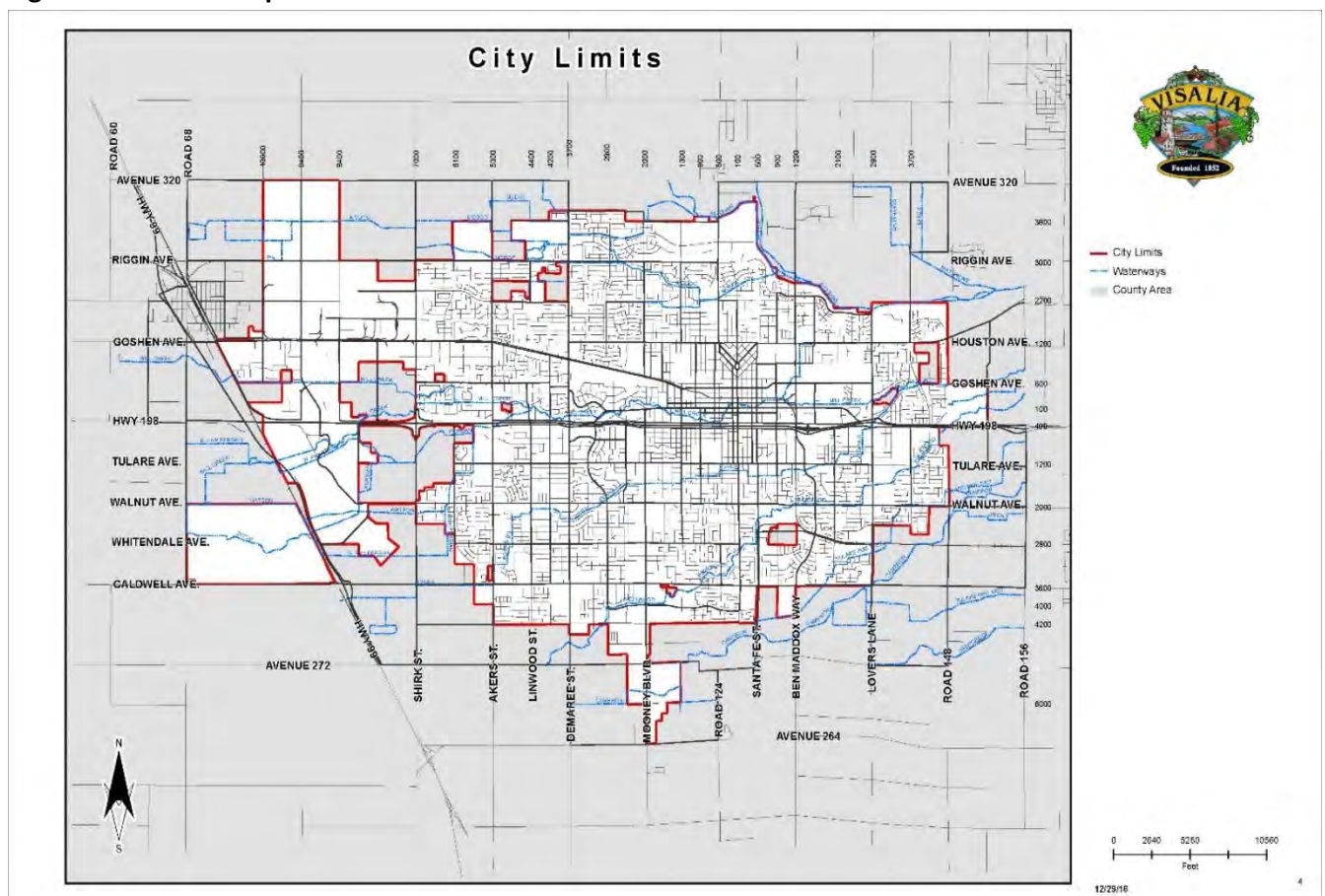
Annex I City of Visalia

Visalia is situated in the southern San Joaquin Valley of California, approximately 230 miles southeast of San Francisco, 190 miles north of Los Angeles, 36 miles and west of Sequoia National Park. It is the County seat of Tulare County. The City provides the following services:

- Public safety (police, fire protection, and ambulance service)
- Transportation
- Domestic water (provided through California Water Service Company)
- Sanitary sewer treatment and disposal
- Solid waste collection
- Parks and recreation

Figure I-1 provides a map of Visalia.

Figure I-1: Visalia Map



Founded in 1852, Visalia drew its livelihood from the gold mines of the Sierra foothills and the fertile Kaweah River Delta. The town of 500 became the Tulare County seat in 1853 but was governed by the

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Board of Supervisors until its incorporation in 1864. Through expansion in the farming, cattle ranching, transportation, and trade, Visalia's population continued to grow. By 1900, when Visalia became a main line stop on the Valley Railroad, it was home to over 3,000 residents. The Tulare County Farm Bureau formed in 1916, and in 1940 established the first stockyards of its kind in the region at its present location.

I.1 COMMUNITY PROFILE

Geography and Climate: The City has an area of 36.25 square miles. The City is relatively flat with an elevation of approximately 330 feet above sea level. Visalia's climate can be described as dry Mediterranean. The summers are hot and dry, and winters are characterized by moderate temperatures and light precipitation. Temperatures and rainfall for Visalia are typical of that of the rest of the valley floor portion of the County.

Government: The City, founded in 1852 and incorporated in 1874, operates under the Council-Manager form of government. The City Council provides policy direction to the City Manager, who is responsible for administering City operations. Visalia voters, at large, elect a five-member Council to serve as the City's legislative and governing body. The members serve four year terms, and they select one member to serve as mayor and one to serve as vice-mayor. A general municipal election is held every two years in November, alternating, between two and three positions each cycle.

The Council is also responsible for establishing land use policies through the General Plan and zoning regulations. The City is a Charter City as opposed to a General Law City. The City Charter is a written document approved by the electorate and acts as a "constitution" for the City. Amendments, revisions and repeals of a charter are subject to the vote of the people.

Population and demographics: The population was 131,074 at the 2016 census update. The 2010 U.S. Census reported that Visalia had a population of 124,442. The population density was 3,589.17 people per square mile (1,280.2/km²). The racial makeup of Visalia was 80,203 (64.45%) White; 2,627 (2.11%) African American; 1,730 (1.39%) Native American; 6,768 (5.44%) Asian; 164 (0.13%) Pacific Islander; 27,249 (21.90%) from other races; and 5,701 (4.58%) from two or more races. Hispanic or Latino of any race were 57,222 persons (46 %).

There were 37,946 households, out of which 15,243 (40.2%) had children under the age of 18 living in them, 20,999 (55.3%) were married couples living together, 4,926 (13%) had a female householder with no husband present, 2,328 (6.1%) had a male householder with no wife present. 8,280 households (21.8%) were made up of individuals living alone and 2,892 households (7.6%) had someone who was 65 years of age or older. The average household size was 3.02. There were 28,253 families (74.5% of all households); the average family size was 3.56.

Housing: There were 44,705 housing units at an average density of 1233.2 per square mile (350.2/km²), of which 20,910 (54.52%) were owner-occupied and 14,956 (38.99%) were occupied by renters. The home vacancy rate was 6.49%.

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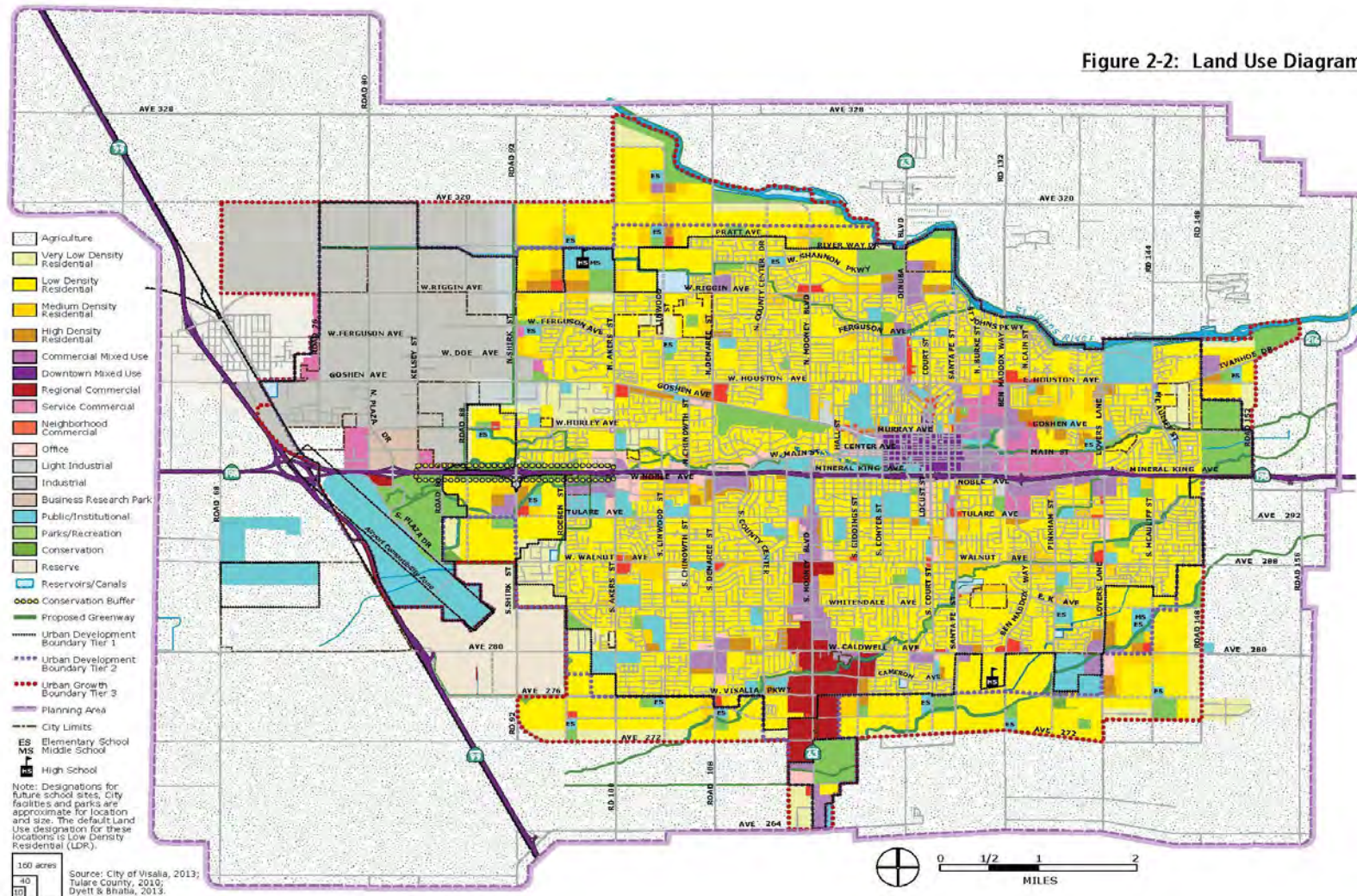
Economy: Visalia serves as the region's economic center. Its economy is based on agriculture, especially grapes, olives, cotton, citrus and nursery products. The area is regarded as one of the most productive agricultural regions in the nation. Livestock is also a significant element of the economy.

Visalia's economy is also powered by distribution and manufacturing facilities. Electronics and paper products are significant manufacturing sectors. In addition, Visalia is home to the region's largest convention center and meeting places. The primary areas of employment in Visalia are education, healthcare, government, agriculture, social assistance, manufacturing and accommodation, and food services. Management, professional and related occupations provide 32% of the jobs in Visalia. About 20% of the workforce is employed by the government. The City's largest employers include Tulare County, Kaweah Delta Healthcare, College of the Sequoias and CIGNA HealthCare.

Land use: Downtown Visalia remains the physical, cultural, and economic center of the City, hosting government offices, a major hospital, a convention center, and many unique shops and restaurants. Predominantly single family neighborhoods surround the core, with pockets of higher density housing dispersed throughout the City. Mooney Boulevard is a regional retail destination and also hosts the College of the Sequoias. Significant industrial development has occurred on large parcels in the northwest quadrant of the City. Visalia's waterways such as the St. Johns River along the city's northeast edge and the network of creeks and canals are also important form-giving elements. **Figure I-2** provides the City's current zoning.

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Figure I-2: Land use and zoning



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Development trends: Historical population data and future projections have been obtained from the U.S. Census Bureau and the California Department of Finance. For analysis purposes, this data is compared to other source data relating to growth and population including the City's General Plan population projections. Historic and Projected Population Growth **Table I-1** provides historic and projected population growth.

Table I-1: Visalia Historic and Projected Population Growth			
Year	Tulare County	Visalia	% of Total County Population
1990	311,921	76,524	24.5%
2000	368,021	95,051	25.8%
2010	442,179	124,442	28.1%
2020	526,471	159,620	30.3%

Notes: 1) 1990 to 2010 population data based on U.S. Census Data

2) 2020 population projection based in 1990 to 2010 average annual growth rate.

Based on current data, Visalia experienced an average annual growth rate of 2.52% between 1990 and 2010. The recession of the late 2000s caused a reduction in population growth with California losing population between 2007 and 2010. The Central Valley added population at just less than 1% per year, and Visalia at 2.1 percent per year, during this period. The most recent California Department of Finance data shows a 1.3 percent change in population from January 1, 2010 to January 1, 2011. Using an annual average growth rate of 2.52%, results in a year 2020 population of approximately 159,620 and a 2025 population of approximately 180,778 compared to the year 2020 General Plan Land Use Element estimate of 165,000. Based upon these comparisons, estimates of the City's population at General Plan build-out are projected to occur by year 2020. According to the General Plan Update, the City will add 65,500 new residents over the next 20 years, a respective increase of 46 percent and 39 percent above existing levels.

Development in hazard prone areas:

Because population growth was less than two percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the County. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

Updated dam inundation maps include a much larger area of the County. While little new development occurred in the expanded inundation zones, vulnerability to dam inundation increased substantially and now includes most of the most populace areas of the County. Updated dam inundation maps for the County and affected cities are included in **Appendix B**.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire City. Development in the City, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

2017 Tulare County MJLHMP - Annex I City of Visalia

I.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: Visalia faces many of the hazards that are present in the County. **Table I-2** below provides a summary of hazards. There are no hazards that are unique to Visalia. Dam inundation is a particularly extensive hazard to the City. Both Terminus and Success Dams may inundate Visalia resulting in an overall potential inundation area of the entire City. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include wild fire, earthquake liquefaction - subsidence, civil unrest and terrorism/cyber terrorism.

Table I-2: Visalia Summary of Hazards					
Hazard	Frequency	Extent	Magnitude	Significance	Location
Climate Change	Highly likely	Extensive	Catastrophic	High	Entire City
Dam Failure	Unlikely	Extensive	Catastrophic	High	Map B-6 depicts
Drought	Likely	Extensive	Catastrophic	High	Entire City
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Entire City
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire City
Extreme Heat	Highly Likely	Extensive	Critical	High	Entire City
Fire	Unlikely	Limited	Limited	Low	Entire City
Floods	Highly Likely	Limited	limited	Low	Map B-18 depicts
Fog	Likely	Extensive	Limited	Low	Entire City
Hazardous Materials	Likely	Limited	Limited	Low	Entire City
Pandemic/Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire City
Severe Storms/High Winds	Highly Likely	Significant	Limited	Medium	Entire City

Guidelines for Hazard Rankings

Frequency of Occurrence:

Highly Likely	Near 100% probability in next year
Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

Potential Magnitude:

Catastrophic	More than 50% of area affected
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Significance (subjective):

low, medium, high

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Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

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I.3 RISK ASSESSMENT

The intent of this section is to assess Visalia's vulnerability separate from that of the Operational Area as a whole, which has already been assessed in **Section 5.3, Risk Assessment**, in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, see **Section 5** of the base plan.

Infrastructure and Values at Risk:

The following data was provided by the City's Fire Chief. This data should only be used as a guideline to determine overall values in the City as the information has some limitations. Generally, the land itself is not a loss. **Table I-3** shows the 2016 inventory for the City.

Table I-3: Visalia 2016 Asset Inventory			
Name	Address	Value (2016 values are included where provided)	Hazard Vulnerability
Airline Terminal	9502 W. Airport Drive		Earthquake, 500-Year Floodplain, Dam Flood, Fog
Anthony Community Center/Provident Skate Park	345 N. Jacob	\$2,194,681	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Blain Park	South Court and Parkview	\$371,913	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Cherry Meadow Park	Pinkham and Cherry Street	\$554,112	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #1	0.8 mi N of SR 216	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #10	RD 136 @ Walnut Avenue (288)	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
City Bridge #11	0.1 mi N of SR 198	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #12	0.15 mi N of K Rd	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #13	Green Oaks Avenue	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
City Bridge #14	0.1 mi NE SR 198	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #15	0.15 mi N of SR 198	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #16	0.08 mi N of SR 198	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #2	0.45 mi N of Avenue 288	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #3	0.3 mi N of Avenue 288	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
City Bridge #4	0.12 mi N of Avenue 280	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog

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City Bridge #5	1.1 mi W of Rd 140	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #6	0.4 mi SE of Avenue 304	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #7	0.25 mi N of SR 198	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #8	0.5 mi N of SR 216	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Bridge #9	0.5 mi E of 63	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Hall East	315 E. Acequia	\$364,102	Earthquake, 500-Year Floodplain, Dam Flood, Fog
City Transit Office	425 E. Oak Avenue	\$1,692,904	Earthquake, 100-Year Floodplain, Dam Flood, Fog
City Hall West/Fire Administration	707 W. Acequia Avenue.	\$626,618	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Combs Park	La Vida and Crenshaw	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Constitution Park	West Tulare and Crenshaw Ct.	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Convention Center	303 E. Acequia	\$22,547,179	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Creative Center	606 N. Bridge Street	\$21,176	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Crestwood Park	S.W. County Center Drive and Whitendale Avenue	\$5,657	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Fairview Community Center	2645 N. Conyer Street	\$240,000	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Fairview Park	Wren Drive and N. Highland St	\$584,290	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Fire Annex/Fire Station 51	309 S. Johnson	\$191,697	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Fire Station 52	2224 W. Monte Vista	\$786,993	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Airport Admin Building	9500 Airport Drive (Hangars Way)	\$734,016	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Fire Station 54	440 W. Ferguson St.	\$793,091	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Fire Station 55/Fire Training Facility /Primary EOC	6291 W. Ferguson St.	\$7,033,266	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Houk Park	S. Woodland & Dartmouth	\$48,694	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Ice House Theater	410 E. Race Avenue.	\$189,322	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Jefferson Park	S. Watson Street and W. Myrtle Avenue	\$87,554	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Kaweah Delta District Hospital	400 W. Mineral King Avenue		Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	3037 E. Noble	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog

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Lift Station	Ben Maddox and St. John's	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Lift Station	Ben Maddox and Walnut	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Bradley and St. John's	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Lift Station	Buena Vista and St. John's	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Lift Station	Burke and Murray	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Caldwell and Jacob	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Chinowith and 198	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Chinowith and Caldwell	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Chinowith and Walnut	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Cotta and Tulare	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Court	\$62,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Crenshaw and COS Farm	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Damaree and 198	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Demaree and Victor	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Fairview Park and 63	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Ferguson and 63	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Lift Station	John Combs Park	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Julieann and Feemster	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Library	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Lindwood and Evans Ditch	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Mill Creek Park	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Lift Station	Mooney Boulevard and Modoc	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Mooney Boulevard and Packwood	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Pinkham and Tulare	\$42,285	Earthquake, 500-Year Flood, Dam Flood, Fog
Lift Station	Sowell and Feemster	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog

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Lift Station	SR-198 and Road 76	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Lift Station	St. John's and Norman	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Tulare and Roeben	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Lift Station	Walnut and County Center	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lift Station	Walnut and Savannah	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Lincoln Oval Park/Oval Building	N. Court and N.W. 2 nd	\$272,042	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Lion's Park	6500 W. Ferguson Avenue	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Main Street Theater (Enchanted Playhouse)	301 E. Main Street	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Manuel Hernandez Community Center	247 W. Ferguson Avenue	\$610,636	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Mayors Park	N. Hall Avenue and W. Main Street	\$24,365	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Memorial Park	N. Hall Avenue and W. Main Street	\$17,430	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Mill Creek Garden	N. Lovers Lane and Millcreek Parkway	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Pinkham Park	S. Pinkham Street and E. Tulare Avenue.	\$47,040	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Plaza Park	700 S. Plaza Parkway	\$1,422,445	Earthquake, Dam Flood, Fog
Police - HQ /Fire Station #1	303 & 315 S. Johnson	\$937,145	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Police District One	204 NW 3 rd Avenue	\$4,407,799	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Police District Two	4100 S. County Center Drive	\$5,179,230	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Police Gun Range	7398 Avenue 328	\$91,160	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Rawhide Ballpark	300 N. Giddings St.	\$14,143,362	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Rec Center (PAL) & Former Caltrans Maintenance Yard	701 E. Race Avenue		Earthquake, 100-Year Floodplain, Dam Flood, Fog
Recreation Park	N. Jacob and W. Center	\$41,486	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Repeater Site	115 W. Murray	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Repeater Site	1717 N. McAuliff	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Repeater Site	9000 W. Airport	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Repeater Site	Giddings north of Mineral King	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
River Bend Park	N. Court Street & W. Wren Avenue	\$436,520	Earthquake, 100-Year Floodplain, Dam Flood, Fog

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Riverway Sports Park	3611 North Dinuba Blvd	\$15,589,715	Earthquake, Dam Flood, Fog
Rotary Park	S. Divisidero & Harvard	\$5,657	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Ruiz Park	639 E. Buena Vista Avenue	\$16,045	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Senior Center	310 N. Locust Street	\$390,919	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Seven Oaks Park	E. Tulare Avenue and S. Edison Street	\$529,669	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Airport Plaza	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Border Links and Ranch Road	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Demaree and Pryor	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Effie and Camp	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Evergreen and Linda Vista	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Golf Course	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Mary and County Center	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Mill Creek and Main	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Mooney Boulevard and 272	\$42,285	Earthquake, 500-Year Floodplain, Fog
Sewer Lift Station	Mooney Boulevard and Sunnyside	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	Shirk and 198	\$42,285	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Sewer Lift Station	St. John's and Modoc	\$42,285	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Shannon 1 Park	N. Mendonca Street and W. Tyler Avenue	\$98,874	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Shannon 2 Park	W. Jerome Avenue and N. Carson Street	\$98,874	Earthquake, Dam Flood, Fog
Solid Waste – Admin, Wrehse, Shop, and Cain Building	309 N. Cain St.	\$141,579	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Soroptimist Park	Linwood and W. Prospect Avenue	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
SPCA	29016 Highway 99	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Stonebrook Park	W. Hemlock Avenue and Martin Street	\$154,985	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Summers Park	Summers Park N. and N. Court Street	\$46,108	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Sunset Park	W. Monte Verde Avenue and Lisendra Drive	\$36,754	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Transit Maintenance Facility	525 N Cain	\$10,176,794	Earthquake, 100-Year Floodplain, Dam Flood, Fog

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Valley Oak Golf Course	1800 S. Plaza Drive	Unknown	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Visalia Municipal Airport	9501 W. Airport Drive	\$5,941,613	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Wastewater Treatment Plant	7579 Avenue 288	\$55,057,784	Earthquake, 100-Year Floodplain, Dam Flood, Fog
West Main Park	Mill Creek Drive and W. Main Street	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Whitendale Park & Community Center	630 W. Beech Avenue	\$233,058	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Willow Glen Park	N Akes St. and Hurley Avenue	\$48,060	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Wittman Village Park	North Court & Pearl	Unknown	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Wittman Village Park & Community Center	317 Pearl St.	\$75,204	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Woodland Park	1701 N. Woodland	\$399,156	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Fire Station 53	5025 W. Walnut	\$3,000,000	Earthquake, 500-Year Floodplain, Dam Flood
City Hall North / City Admin	220 N. Santa Fe	Unknown	Earthquake, 500-Year Floodplain, Dam Flood
Police / Fire Dispatch Center (VECC)	Burke and School (under construction)	\$20,000,000	Earthquake, 500-Year Floodplain, Dam Flood

Critical Facilities: The City has identified the following infrastructure in **Table I-4** as critical facilities:

Table I-4: Visalia Critical Facilities		
Facility	Address	Value
Airline Terminal	9502 W. Airport Drive	Unknown
City Bridge #1	0.8 mi N of SR 216	Unknown
City Bridge #10	RD 136 @ Walnut Avenue (288)	Unknown
City Bridge #11	0.1 mi N of SR 198	Unknown
City Bridge #12	0.15 mi N of K Rd	Unknown
City Bridge #13	Green Oaks Avenue	Unknown
City Bridge #14	0.1 mi NE SR 198	Unknown
City Bridge #15	0.15 mi N of SR 198	Unknown
City Bridge #16	0.08 mi N of SR 198	Unknown
City Bridge #2	0.45 mi N of Avenue 288	Unknown
City Bridge #3	0.3 mi N of Avenue 288	Unknown
City Bridge #4	0.12 mi N of Avenue 280	Unknown
City Bridge #6	0.4 mi SE of Avenue 304	Unknown
City Bridge #7	0.25 mi N of SR 198	Unknown
City Bridge #8	0.5 mi N of SR 216	Unknown
City Bridge #9	0.5 mi E of 63	Unknown
City Hall East	315 E. Acequia	\$364,102
City Transit Office	425 E. Oak Avenue	\$1,692,904
City Hall West/Fire Administration	707 W. Acequia Avenue.	\$626,618
Convention Center	303 E. Acequia	\$22,547,179
Creative Center	606 N. Bridge Street	\$21,176

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Table I-4: Visalia Critical Facilities		
Facility	Address	Value
Crestwood Park	S.W. County Center Drive and Whitendale Avenue	\$5,657
Fairview Community Center	2645 N. Conyer Street	\$240,000
Fairview Park	Wren Drive and N. Highland St	\$584,290
Fire Annex/Fire Station 51	309 S. Johnson	\$191,697
Fire Station 52	2224 W. Monte Vista	\$786,993
Airport Admin Building	9500 Airport Drive (Hangars Way)	\$734,016
Fire Station 54	440 W. Ferguson St.	\$793,091
Fire Station 55/Fire Training Facility /Primary EOC	6291 W. Ferguson St.	\$7,033,266
Kaweah Delta District Hospital	400 W. Mineral King Avenue	Unknown
Lift Station	3037 E. Noble	\$42,285
Lift Station	Ben Maddox and St. John's	\$42,285
Lift Station	Ben Maddox and Walnut	\$42,285
Lift Station	Bradley and St. John's	\$42,285
Lift Station	Buena Vista and St. John's	\$42,285
Lift Station	Burke and Murray	\$42,285
Lift Station	Caldwell and Jacob	\$42,285
Lift Station	Chinowith and 198	\$42,285
Lift Station	Chinowith and Caldwell	\$42,285
Lift Station	Chinowith and Walnut	\$42,285
Lift Station	Cotta and Tulare	\$42,285
Lift Station	Court	\$62,285
Lift Station	Crenshaw and COS Farm	\$42,285
Lift Station	Damaree and 198	\$42,285
Lift Station	Demaree and Victor	\$42,285
Lift Station	Fairview Park and 63	\$42,285
Lift Station	Ferguson and 63	\$42,285
Lift Station	John Combs Park	\$42,285
Lift Station	Julieann and Feemster	\$42,285
Lift Station	Library	\$42,285
Lift Station	Lindwood and Evans Ditch	\$42,285
Lift Station	Mill Creek Park	\$42,285
Lift Station	Mooney Boulevard and Modoc	\$42,285
Lift Station	Mooney Boulevard and Packwood	\$42,285
Lift Station	Pinkham and Tulare	\$42,285
Lift Station	Sowell and Feemster	\$42,285
Lift Station	SR-198 and Road 76	\$42,285
Lift Station	St. John's and Norman	\$42,285
Lift Station	Tulare and Roeben	\$42,285
Lift Station	Walnut and County Center	\$42,285
Lift Station	Walnut and Savannah	\$42,285
Police - HQ /Fire Station #1	303 & 315 S. Johnson	\$937,145
Police District One	204 NW 3 rd Avenue	\$4,407,799
Police District Two	4100 S. County Center Drive	\$5,179,230
Police Gun Range	7398 Avenue 328	\$91,160
Rawhide Ballpark	300 N. Giddings St.	\$14,143,362

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Table I-4: Visalia Critical Facilities		
Facility	Address	Value
Rec Center (PAL) & Former Caltrans Maintenance Yard	701 E. Race Avenue	Unknown
Repeater Site	115 W. Murray	Unknown
Repeater Site	1717 N. McAuliff	Unknown
Repeater Site	9000 W. Airport	Unknown
Repeater Site	Giddings north of Mineral King	Unknown
Senior Center	310 N. Locust Street	\$390,919
Sewer Lift Station	Airport Plaza	\$42,285
Sewer Lift Station	Border Links and Ranch Road	\$42,285
Sewer Lift Station	Demaree and Pryor	\$42,285
Sewer Lift Station	Effie and Camp	\$42,285
Sewer Lift Station	Evergreen and Linda Vista	\$42,285
Sewer Lift Station	Golf Course	\$42,285
Sewer Lift Station	Mary and County Center	\$42,285
Sewer Lift Station	Mill Creek and Main	\$42,285
Sewer Lift Station	Mooney Boulevard and 272	\$42,285
Sewer Lift Station	Mooney Boulevard and Sunnyside	\$42,285
Sewer Lift Station	Shirk and 198	\$42,285
Sewer Lift Station	St. John's and Modoc	\$42,285
Solid Waste – Admin, Warehouse, Shop, and Cain Building	309 N. Cain St.	\$141,579
Transit Maintenance Facility	525 N Cain	\$10,176,794
Visalia Municipal Airport	9501 W. Airport Drive	\$5,941,613
Wastewater Treatment Plant	7579 Avenue 288	\$55,057,784
Fire Station 53	5025 W. Walnut	\$3,000,000
City Hall North / City Admin	220 N. Santa Fe	
Police / Fire Dispatch Center (VECC)	Burke and School (under construction)	\$20,000,000

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the City by evaluating the inventory of City owned existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the County was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State—January 1, 2016/2017. The population is estimated to be 131,074 in an area of square miles. The estimate is 44,705 residential units with a 2016 median value of \$163,100. The most common employment sectors for those who live in Visalia are government, agriculture, retail trade, and manufacturing.

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Economic Risks

Visalia serves as the region's economic center. Its economy is based on agriculture, especially grapes, olives, cotton, citrus and nursery products. The area is regarded as one of the most productive agricultural regions in the nation. Livestock is also a significant element of the economy.

Visalia's economy is also powered by distribution and manufacturing facilities. Electronics and paper products are significant manufacturing sectors. In addition, Visalia is home to the region's largest convention center and meeting places. The primary areas of employment in Visalia are education, healthcare, government, agriculture, social assistance, manufacturing and accommodation, and food services. Management, professional and related occupations provide 32% of the jobs in Visalia. About 20% of the workforce is employed by the government.

According to the Visalia Economic Development Corporation, the top ten employers in the city are, in descending order, Tulare County, Kaweah Delta Medical Center, College of the Sequoias, Family Healthcare Network, the City of Visalia, VF, International Paper, Jostens, Cigna, and Visalia Medical Clinic.

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table I-4** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

Table I-4: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Dam Inundation	<p><u>Impacts:</u> Dam inundation is a particularly extensive hazard to the City. Both Terminus and Success Dams may inundate Visalia resulting in an overall potential inundation area of the entire City.</p> <p><u>Costs:</u> A rapid failure of Success or Terminus Dam would result in catastrophic loss of life and injury, and property loss. Map B-6 depicts the potential footprint for dam inundation. Specifics of the inundation</p>

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	<p>curves are contained in the Dam Emergency Action Plans which are a limited distribution documents. The potential injury and death from a short notice dam failure could be in the 10,000s. Total losses within the Visalia jurisdiction could exceed \$2,000,000,000.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its needs. During prolonged droughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from drought to the City and its communities are difficult to quantify and are dependent upon drought duration and severity. In addition to increased costs for water, prolonged drought may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the City's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p> <p><u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.</p>
Flood	<p><u>Impacts:</u> Flooding occurs in the City during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding.</p> <p><u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$200,000,000.</p>

Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Visalia:

- Climate Change
- Dam Inundation
- Drought
- Extreme heat
- Flood

These hazards which may impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, these are hazards that represent vulnerabilities to infrastructure.

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I.4 CAPABILITIES ASSESSMENT

The reason for conducting a capability assessment is to identify Visalia's capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's "existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools."

Elements

C1. Does the plan document the jurisdiction's existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The planning team conducted an assessment of the City's capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management practices and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the City. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

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Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table I-5: Visalia Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Plan	<p>The City's General Plan provides a policy base to guide future growth within the City. It was created by planners, engineers and technical staff with knowledge of land development, land management practices, as well as human-caused and natural hazards. The General Plan:</p> <ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. • Applies the approved plans, policies, code provisions, and other regulations to proposed land uses. <p>The MJLHMP may be adopted as part of the Safety Element by the City Counsel. As the Safety Element is updated, revised hazard analysis from the MHLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	All	Yes 2014 – Health and Safety Element	Planning
California Building Code Enforcement	The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California including housing, public buildings and maintenance facilities. Improved	Earthquake, Fire, Floods, Severe		Regulatory

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	<p>safety, sustainability, maintaining consistency, new technology and construction methods, and reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.</p> <p>California's building codes are published in their entirety every three (3) years. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle. The California Seismic Safety Commission provides access to an array of regulatory and advisory information at: http://www.seismic.ca.gov/cog.html</p>	winter storm/high winds		
Capital Improvement Program (CIP)	<p>The City's CIP provides a foundation and planning tool to assist in the orderly acquisition of municipal facilities and to assure that service needs for the future are met. The CIP provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.</p> <p>The MJLHMP will be used to select potential projects for the CIP. As the CIP is updated, additional mitigation measures will be analyzed and included in the Visalia section of the MJLHMP. Funding for CIP projects identified in the MJLHMP will be reviewed for mitigation grant program eligibility.</p>	Dam Failure, Earthquake, Fire, Floods, Landslides, Levee failure, Severe winter storm/high winds		Planning
Municipal Service Review (MSR)	<p>MSRs are intended to provide a comprehensive analysis of service provision by each of the special districts and other service providers within the legislative authority of the (LAFCo) of a city. This analysis focuses on service providers within the City of Visalia and makes determinations in each area of evaluation. The MSR considers and makes recommendations based on the following information:</p> <ul style="list-style-type: none"> • Present and planned land uses in the area. • Present and probable need for services in the area. • Present ability of each service provider to provide necessary services. • The fiscal, management, and structural health of each service provider. 	All		Planning

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	<ul style="list-style-type: none"> The existence of any social or economic communities of interest in the area 			
Visalia Urban Water Management Plan	<p>The Urban Water Management Plan is required by California Water Code §10644(a) requires urban water suppliers to file with the Department of Water Resources (DWR), the California State Library, and any City or County within which the supplier provides water supplies, a copy of its Urban Water Management Plan. UWMP's are to be prepared every five years by urban water suppliers with 3,000 or more service connections or supplying 3,000 or more acre-feet of water per year.</p> <p>The purpose of this UWMP is to be a baseline document and source of information for DWR and to serve as:</p> <ul style="list-style-type: none"> A short and long range planning document for water supply; Data source for the development of a regional water supply plan, A source document for the City of Visalia in preparing updated General Plans, and A key component of an Integrated Regional Water Management Plan 	Climate change, Drought	2012	Planning
Emergency Operations Plan (revised 2003)	<p>Describes what the local jurisdiction's actions will be during a response to an emergency. Includes annexes that describe in more detail the actions required of the local jurisdiction's departments/agencies. Further, this plan describes the role of the Emergency Operation Center (EOC) and the coordination that occurs between the EOC and the local jurisdiction's departments and other response agencies. Finally, this plan describes how the EOC serves as the focal point among local, state, and federal governments in times of disaster.</p> <p>The MJLHMP will be used as an essential tool to update the City EOP. Cal OES requires that EOPs describe applicable hazards as part of the Plan. The latest MJLHMP hazards descriptions will be included. Mitigation actions that are preparedness and response</p>	All		Regulatory

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	in nature will be analyzed for applicability to include in the description of EOP processes and procedures.			
Other City Code of Ordinances	<p>The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; to regulate and control the demolition of all buildings and structures, and for related purposes.</p> <p>The MJLHMP will provide both hazard descriptions and mitigation actions that may address energy conservation, fire protection and development in hazard prone areas. The maps of Visalia related hazards will be used to augment other mapping products to protect public health and safety when updating City Code.</p>	Earthquake, Fire, Flooding,		Regulatory
Fire Department Master Plan	The purpose of this plan is to guide the City in regards to maintaining levels of service and account for the impact of future growth.	All		Planning

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Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table I-6: Visalia Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
City Public Works Department	Maintains and operates a wide range of local equipment and facilities as well as provides assistance to members of the public. Services include providing sufficient potable water, reliable waste water services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.	All		Technical
Procurement Department	Provides a full range of municipal financial services, administers several licensing measures, and functions as the plan participant's Procurement Services Manager.	All		Technical
City Engineering Services Department	<ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. • Applies the approved plans, policies, code provisions, and other regulations to proposed land uses. 	All		Technical
City Development Services Department	Provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.	All		Technical
City Fire Department	Maintains and updates the Emergency Operations Plan and coordinates local response and relief activities within the	All		Technical

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Table I-6: Visalia Administrative and Technical Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	Emergency Operation Center. Works closely with County, State, and Federal partners to support planning and training and to provide information and coordinate assistance.			

Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table I-7: Visalia Fiscal Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Visalia General Fund	Program operations and specific projects.	All		Financial, Financial Services Department
Visalia General Obligation (GO) Bonds	GO Bonds are appropriately used for the construction and/or acquisition of improvements to real property broadly available to residents and visitors. Such facilities include, but are not limited to, libraries, hospitals, parks, public safety facilities, and cultural and educational facilities.	All		Financial, Financial Services Department
Lease Revenue Bonds	Lease revenue bonds are used to finance capital projects that (1) have an identified budgetary stream for repayment (e.g., specified fees, tax receipts, etc.), (2) generate project revenue but rely on a broader pledge of general fund revenues to reduce borrowing costs, or (3) finance the acquisition and installation of equipment for the local jurisdiction's general governmental purposes.	All		Financial, Financial Services Department

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Education and Outreach: Programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

Table I-8: Visalia Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach
Visalia Website http://www.ci.visalia.ca.us / and other social media	Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts. The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.	All		Education and Outreach

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I.5 MITIGATION STRATEGY

Table I-9 lists the Tule River Tribe's specific mitigation actions from the 2011 Plan and provides their status.

Table I-9 Visalia - Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
1	Y	Improve our GIS for use as a pre-application tool for new construction and major remodels of residential and/or non-residential structures located in special flood hazard areas.	A, B, C, D	Citywide	Community Development	Ongoing. New mitigation action 3.
2	Y	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	A, B, C, D, E	Citywide	Community Development and Fire Department	Ongoing. New mitigation action 9.
3	Y	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	A, B, C, D	Citywide	Community Development	Deferred due to need to map and evaluate levees.
4	Y	Develop strategies and action plans to address any floodplain management issues that have arisen or will arise from FEMA and/or DWR regarding the countywide DFIRM update, Community Assessment Visits or other floodplain related activities.	A, B, C, D	Citywide	Community Development	Completed
5	Y	Increase participation in the NFIP by improving the Community Rating System classification level for the community through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	A, B, C, D	Citywide	Community Development	Completed

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6	Y	Relocate the EOC from the basement of the Public Safety Building to Fire Station 55. Relocation will reduce flooding risk and improve operational functionality.	A, B, C, D, E	EOC	Fire Department	Completed
7	Y	Implement citywide drainage basin management program that includes an information database and on-site tools for use by staff in the management of drainage basins during rainfall events.	A, B, C, D	Drainage basins citywide	Community Development and Public Works	Ongoing. Included in mitigation action 4 in new Plan.
8	Y	Upgrade existing drainage basin pumps citywide to best utilize channel capacities and to increase basin capacities.	A, B, C, D	Drainage basins citywide	Community Development and Public Works	Cancelled. Not required.
9	Y	Increased capacity at the McDermott Basin to increase the level of protection for the west side sunken portion of SR-198. Additional excavation and overflow spillway anticipated.	A, B, C, D	McDermott Basin	Community Development	Not completed. Included in mitigation action 5 in new Plan,
10	Y	Increased capacity at the Goshen Ocean Basin to increase the level of protection. Additional property acquisition and excavation anticipated.	A, B, C, D	Goshen Ocean Basin	Community Development	Ongoing and included in mitigation action 6 in new Plan.
11	Y	Engineering study of the existing drainage systems in the Downtown and Oval Park areas to determine existing deficiencies and to develop capital projects to improve drainage and to reduce direct flows into Mill Creek.	A, B, C, D	Downtown and Oval Park area drainage system	Community Development and Public Works	Completed.
12	Y	Construct inflow and outflow structures at the Oaks Basin located on Mill Creek upstream of the city to provide functional operation of this upstream lay-off basin.	A, B, C, D	Citywide	Community Development	Ongoing. Mitigation action 7 in new Plan.
21	Y	Acquire land upstream and develop storm water layoff basins for Packwood Creek, Mill Creek, and Evans Ditch to reduce flooding from the 1% annual chance flood.	A, B, C, D	Citywide	Community Development	Ongoing. Included as mitigation action 1 in new Plan.

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Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

Many of the City's mitigation strategies from the 2011 HMP are still relevant to this update. **Table I-10** contains an updated set of potential mitigation strategies for new Plan. Mitigation actions were derived from numerous sources including the General Plan, City Code, Capital Improvement Plan and input from the public and stakeholders.

Table I-10: Visalia Potential Mitigation Strategies			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the Tulare County MJLHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
6	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.

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7	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or State responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
9	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.
10	Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
11	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	FL	Mit.
12	Increase participation in the NFIP by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
13	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
14	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
15	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
16	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
17	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.

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18	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
19	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
20	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.
21	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.
22	Acquire land upstream and develop storm water layoff basins for Packwood Creek, Mill Creek, and Evans Ditch to reduce flooding from the 1% annual chance flood.	FL	Mit.
23	Increase channel capacities for ditches and waterways that convey flood flows and City storm water flows into and through the City.	FL	Mit.
24	Improve our GIS for use as a preapplication tool for new construction and major remodels of residential and/or nonresidential structures located in special flood hazard areas.	FL	Mit.
25	Implement citywide drainage basin management program that includes an information database and on-site tools for use by staff in the management of drainage basins during rainfall events.	FL	Mit.
26	Increased capacity at the McDermott Basin to increase the level of protection for the west side sunken portion of SR-198. Additional excavation and overflow spillway anticipated.	FL	Mit.
27	Increased capacity at the Goshen Ocean Basin to increase the level of protection. Additional property acquisition and excavation anticipated.	FL	Mit.
28	Construct inflow and outflow structures at the Oaks Basin located on Mill Creek upstream of the city to provide functional operation of this upstream lay-off basin.	FL	Mit.

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A list of mitigation actions was selected from the mitigation strategies. **Table I-11** provides the mitigation 2017 MJLHMP actions for the City. New priorities for mitigation actions are listed in the table.

Table I-11 Tulare - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Acquire land upstream and develop storm water layoff basins for Packwood Creek, Mill Creek, and Evans Ditch to reduce flooding from the 1% annual chance flood.	Community Development	Unknown	High	One Year
2	Increase channel capacities for ditches and waterways that convey flood flows and City storm water flows into and through the City.	Community Development	Unknown	High	One Year
3	Improve our GIS for use as a preapplication tool for new construction and major remodels of residential and/or nonresidential structures located in special flood hazard areas.	Community Development	Unknown	High	One Year
4	Implement citywide drainage basin management program that includes an information database and on-site tools for use by staff in the management of drainage basins during rainfall events.	Community Development and Public Works	Unknown	High	One Year
5	Increased capacity at the McDermott Basin to increase the level of protection for the west side sunken portion of SR-198. Additional excavation and overflow spillway anticipated.	Community Development	Unknown	High	One year
6	Increased capacity at the Goshen Ocean Basin to increase the level of protection. Additional property acquisition and excavation anticipated.	Community Development	Unknown	High	One year
7	Construct inflow and outflow structures at the Oaks Basin located on Mill Creek upstream of the city to provide functional operation of this upstream lay-off basin.	Community Development	Unknown	High	One year
8	Replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or	Community Development	\$23.7m	High	One year

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	emergency. The Visalia Emergency Communications Center building is under construction. This building is designed in accordance with the California Essential Services Buildings Seismic Safety Act. The building will contain the following five essential services relocated from other City offices: 1) 911 dispatch center; 2) emergency operations center; 3) fire department headquarters; 4) traffic management center and 5) information services center.				
9	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	Community Development Fire	Unknown	Medium	One Year

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. In the City of Tulare, these other planning documents and process include the General Plan Update, the City Code zoning ordinances and various infrastructure master plans. The term incorporated in planning terms means that the HMP and the other plans have similar community goals and policies in that they advocate similar land use patterns, and they are consistent in their guidance of direction and rate of growth. As other plans are updated or created, the HMP should be used as guidance.

Some of the plans listed in the Capabilities Assessment mentioned in Section I.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Visalia Annex into the Health and Safety Element of the City's General Plan.
- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances
- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices
- Resource for developing and/or updating emergency operations plans, emergency response plans, etc.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor

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to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate.

Although Visalia did not incorporate the Plan risk assessment elements into the natural resources and safety elements of the City's 2014 update to the General Plan, it should do so once the new Plan is complete. The City should also use the update Plan for development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

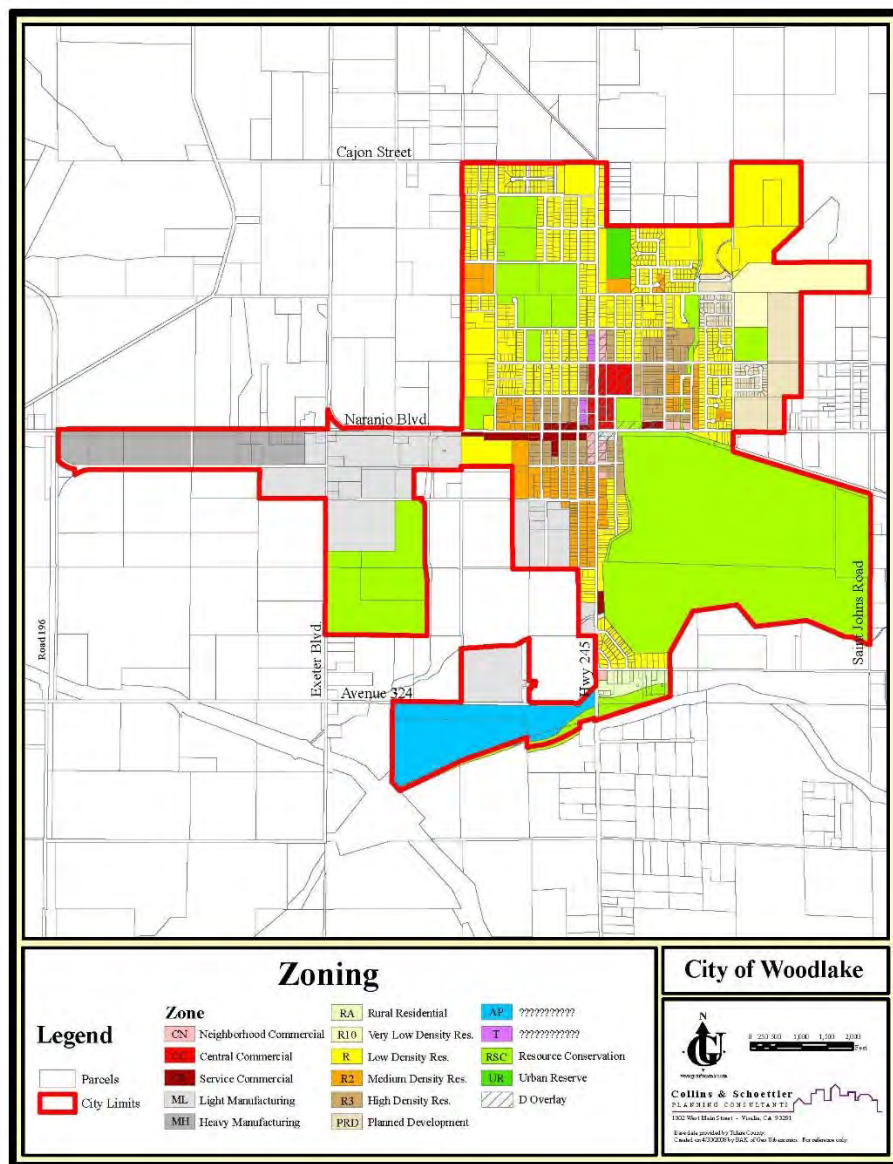
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Annex J City of Woodlake

Woodlake is in the northwestern corner of the County, approximately 20 miles north of the City of Visalia (Visalia), the County seat. The City provides the -*following services:

- Public safety (police and fire protection)
- Domestic water
- Wastewater collection, treatment & disposal
- Streets and traffic circulation

The City contracts with a private carrier to provide pickup of solid waste within the City limits. **Figure J-1** provides a zoning map of Woodlake.



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Development in hazard prone areas:

J.1 COMMUNITY PROFILE

Geography and Climate: The 2010 U.S. Census indicated that the City of Woodlake had an incorporated area of 2.76 square miles. The City is relatively flat with an elevation of approximately 440 feet above sea level. Woodlake climate can be described as Mediterranean. The summers are hot and dry, and winters are characterized by moderate temperatures and light precipitation. Temperatures and rainfall for Woodlake are typical of that of the rest of the valley floor portion of the County.

Government: The community of Woodlake was founded in 1912 by Gilbert F. Stevenson, a wealthy land developer from southern California. In 1941, Woodlake became incorporated, becoming Tulare County's seventh city. The City operates under the Council-Manager form of government.

Population and demographics: The 2010 U.S. Census reported that Woodlake had a population of 7,279. Estimates for 2015 were 7,654. The population density was 2,633.5 people per square mile. The racial makeup of Woodlake was 3,691 (50.7%) White; 37 (0.5%) African American; 108 (1.5%) Native American; 52 (0.7%) Asian; 9 (0.1%) Pacific Islander; 3,072 (42.2%) from other races; and 310 (4.3%) from two or more races. Hispanic or Latino of any race were 6,381 persons (87.7%). The Census reported that 7,279 people (100% of the population) lived in households, no one (0%) lived in non-institutionalized group quarters, and no one (0%) was institutionalized.

There were 1,966 households, out of which 1,169 (59.5%) had children under the age of 18 living in them, 1,055 (53.7%) were opposite-sex married couples living together, 403 (20.5%) had a female householder with no husband present, 175 (8.9%) had a male householder with no wife present. There were 177 (9.0%) unmarried opposite-sex partnerships, and 9 (0.5%) same-sex married couples or partnerships. 271 households (13.8%) were made up of individuals and 127 (6.5%) had someone living alone who was 65 years of age or older. The average household size was 3.70. There were 1,633 families (83.1% of all households); the average family size was 4.03.

Housing: There were 5,868 housing units at an average density of 906.9 per square mile (350.2/km²), of which 3,176 (56.8%) were owner-occupied, and 2,417 (43.2%) were occupied by renters. The homeowner vacancy rate was 2.3%; the rental vacancy rate was 4.2%. 11,975 people (55.8% of the population) lived in owner-occupied housing units and 9,316 people (43.4%) lived in rental housing units.

Economy: The economy of Woodlake is largely based on agriculture and food production. The largest employer is Monrovia Nurseries.

Land use: Woodlake consists of a small business district surrounded by low and medium density residential property and agriculture land. A large part of the incorporated area of Woodlake is set aside for parks and resource conservation.

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Development trends: Woodlake experienced an average annual growth rate of 1.25% between 1990 and 2010. The growth rate between 1990 and 2000 was 1.60%. Even with the recession and weak housing market in recent years the annual growth rate remained fairly steady at 1.35% between 2010 and 2015. The Woodlake General Plan Update (Collins & Schoettler Planning Consultants, 2008), estimates a build-out population between 10,315 and 11,514, estimated to occur by year 2028. The plan's "low" population projection is based on Woodlake's average annual growth rate from 1990 to 2000 (1.59%), while its "high" population projection is based on the average annual growth rate from 1980 to 2000 (2.15%). The General Plan Update provides a residential land needs evaluation, projecting a need of between 90 to 179 acres of additional residential land by 2028.

Tulare County Association of Governments (TCAG) 2015 Sustainable Communities Strategy (SCS) forecasted population growth using the Department of Finance's (DOF) projections and historical trends.

The SCS shows an estimated annual growth rate for Woodlake of 1.59%. The City plans for future growth through the implementation of policies and standards set forth in its General Plan. The General Plan is a long-term, comprehensive framework to guide physical, social and economic development within the community's planning area.

Development in hazard prone areas:

Because population growth was less than two percent per year since approval of the 2011 MJLHMP, there has been no development in hazard prone areas that has affected overall vulnerability of the County. Development that did occur, was primarily infill in urban areas where vulnerabilities are well understood and described.

Updated dam inundation maps include a much larger area of the County. While little new development occurred in the expanded inundation zones, vulnerability to dam inundation increased substantially and now includes parts of the City. Updated dam inundation maps for the County and affected cities are included in **Appendix B**.

The new MJLHMP addresses the new hazard of climate change. This hazard impacts the entire City. Development in the City, the State and globally with increased carbon emissions will result in increasing overall vulnerabilities to its impacts.

J.2 HAZARDS IDENTIFICATION AND ANALYSIS

Hazards: Woodlake faces many of the hazards that are present in the County. **Table J-1** below provides a summary of hazards. Visalia faces many of the hazards that are present in the County. There are no hazards that are unique to Woodlake. Dam inundation is a particularly extensive hazard to the City. Both Terminus and Success Dams may inundate Visalia resulting in an overall potential inundation area of the entire City. Hazards in the City with unlikely frequency, limited extent, limited magnitude and low significance were not included. These include earthquake liquefaction - subsidence, civil unrest and terrorism/cyber terrorism.

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Table J-1: Woodlake Summary of Hazards					
Hazard	Frequency	Extent	Magnitude	Significance	Location
Climate Change	Highly likely	Extensive	Catastrophic	High	Entire City
Dam Failure	Unlikely	Extensive	Catastrophic	Low	Map B-22 Depicts
Drought	Likely	Extensive	Catastrophic	High	Entire City
Earthquake: Shaking	Occasional	Extensive	Limited	Low	Entire City
Energy Emergency	Occasional	Extensive	Critical	Medium	Entire City
Extreme Heat	Highly Likely	Extensive	Critical	High	Entire City
Fire	Occasional	Limited	Limited	Medium	Entire City
Flood	Occasional	Limited	Limited	Medium	Map B-21 depicts
Fog	Likely	Extensive	Limited	Low	Entire City
Hazardous Materials	Likely	Limited	Limited	Low	Entire City
Levee Failure	Occasional	Extensive	Catastrophic	Low	Entire City
Pandemic and Vector Borne Disease	Likely	Extensive	Critical	Medium	Entire City
Severe Storms and High Winds	Highly Likely	Significant	Limited	Medium	Entire City
Wildfire	Unlikely	Limited	Limited	Low	Map B-20 depicts

Guidelines for Hazard Rankings

Frequency of Occurrence:

Highly Likely	Near 100% probability in next year
Likely	Between 10 and 100% probability in next year or at least one chance in ten years
Occasional	Between 1 and 10% probability in next year or at least one chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Spatial Extent:

Limited	Less than 10% of planning area
Significant	10-50% of planning area
Extensive	50-100% of planning area

Potential Magnitude:

Catastrophic	More than 50% of area affected
Critical	25 to 50% of area affected
Limited	10 to 25% of area affected
Negligible	Less than 10%

Significance (subjective):

low, medium, high

J.3 RISK ASSESSMENT

The intent of this section is to assess Woodlake's vulnerability separate from that of the Operational Area as a whole, which has analyzed and described in **Section 5.3 Risk Assessment** in the base plan. This risk assessment analyzes the population, property, and other assets vulnerable to the hazards ranked of medium or high significance that may vary from other parts of the planning area. For more information about how hazards affect the County as a whole, see **Section 5** of the base plan.

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Infrastructure and Values at Risk:

The following data was provided by the City Administrator. This data should only be used as a guideline to determine the overall values in the City as the information has some limitations. Generally, the land itself is not a loss. **Table J-2** shows the 2016 inventory for the City.

Table J-2: Woodlake Risk Assessment				
Address	Address	Value	Type	Hazards
Valencia House	248 N. Valencia Blvd		Built Environment and People (40)	Earthquake, Fog
Willow Court Park	E. Sierra Avenue and Willow Ct.		People, Built Environment and Natural Resources	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Woodlake City Park and Miller Brown Park	E. Antelope Avenue and N. Magnolia Street		People, Economy, Built Environment and Natural Resources	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Woodlake Fire Prot. District	216 E Naranjo Blvd	\$250,000	Built Environment	Earthquake, Dam Flood, Fog
Woodlake Police Department	350 N. Valencia Boulevard	\$500,000	Built Environment	Earthquake, Fog
Woodlake City Hall	350 N. Valencia Boulevard	\$500,000	People, Built Environment	Earthquake, Fog
Woodlake Water Tower	552 N. Castle Rock	\$1,600,000	Built Environment, Natural Resources	Earthquake, 500-Year Floodplain, Fog
Public Works Department/Wastewater Treatment Plant	595 S. Valencia Boulevard	\$400,000	Built Environment, Natural Resources	Earthquake, 500-Year Floodplain, Dam Flood, Fog
Woodlake Sewer Plant	811 S. Valencia	\$19,000,000	Built Environment, Natural Resources	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Woodlake Airport	895 S. Valencia Boulevard	\$800,000	Built Environment	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Woodlake Plaza	179 N. Magnolia St	\$2,000,000	People, Built Environment, Economy	Earthquake, 100-Year Floodplain, Dam Flood, Fog
Woodlake Transit Center	121 E. Lakeview	\$1,000,000	People, Built Environment, Economy	Earthquake, Fog

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Critical Facilities: The City has identified the following infrastructure in **Table J-3** as critical facilities:

Table J-3: Woodlake Critical Facilities		
Facility	Address	Value
Woodlake Fire Prot. District	216 E Naranjo Blvd	\$250,000
Woodlake Police Department	350 N. Valencia Boulevard	\$500,000
Woodlake City Hall	350 N. Valencia Boulevard	\$500,000
Woodlake Water Tower	552 N. Castle Rock	\$1,600,000
Public Works Department Wastewater Treatment Plant	595 S. Valencia Boulevard	\$400,000
Woodlake Sewer Plant	811 S. Valencia	\$19,000,000
Woodlake Airport	895 S. Valencia Boulevard	\$800,000
Woodlake Fire Prot. District	216 E Naranjo Blvd	\$250,000

Vulnerabilities and Potential Losses:

A risk assessment determines the vulnerability of assets within the City by evaluating the inventory of City owned existing property and the population exposed to a hazard. A quantitative vulnerability assessment is limited to the exposure buildings, and infrastructures to the identified hazards. This risk assessment includes only those hazards that are natural.

Populations and Businesses at Risk

Residential population data for the City was obtained from the State of California Department of Finance E-1 Population Estimates for Cities, Counties, and the State — January 1, 2016/2017. The population is estimated to be 7,525 in an area of 2.72 square miles. The estimate is 2,062 residential units with a 2016 median value of \$133,459. The most common employment sectors for those who live in Woodlake are agriculture and retail trade.

Economic Risks

The economy of Woodlake is largely based on agriculture and food production. The City serves mostly as a commuter town with many residents having to travel to larger population centers to seek employment. Local commerce is composed of mostly small, family-owned businesses.

Vulnerability and Potential Losses

FEMA requires that an estimation of loss be conducted for the identified hazards to include the number of potential structures impacted by the hazards and the total potential costs. The analysis of potential losses calculated in **Table J-4** used the best data currently available to produce an understanding of potential loss. These estimates may be used to understand relative risk from hazards and potential losses. There are uncertainties in any loss estimation method, resulting from lack of scientific study and the exact result of hazard effects on the built environment, and from the use of approximations that are necessary for a comprehensive analysis.

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Table J-4: Summary of Vulnerabilities and Potential Loss	
Hazard Type	Impacts/Costs
Climate Change	<p><u>Impacts:</u> Climate change will cause multiple effects to infrastructure and community public health. Warmer weather associated with climate change will result in more heat related illness. Drier weather will place increasing demands on imported and well water, and may lead to long lasting draughts that result in water rationing.</p> <p><u>Costs:</u> Climate change costs are difficult to specify. They will occur and accrue over centuries. As temperatures rise, additional costs for climate control such as air conditioning will occur. Less precipitation may result in depletion of stored and ground water reserves with potential for increased water costs and rationing. Much of these costs will be borne by individuals and families. Increased costs will also affect businesses and government owned facilities. Researchers at UC Berkeley (Science, May 2017) concluded that for every 1-degree Fahrenheit increase in global temperatures, the U.S. economy stands to lose about 0.7 percent of its Gross Domestic Product, with each degree of warming costing more than the last.</p>
Dam Inundation	<p><u>Impacts:</u> Dam inundation is a particularly extensive hazard to the City. Both Terminus and Success Dams may inundate Tulare resulting in an overall potential inundation area of the entire City.</p> <p><u>Costs:</u> A rapid failure of Success or Terminus Dam would result in catastrophic loss of life and injury, and property loss. Map B-6 depicts the potential footprint for dam inundation. Specifics of the inundation curves are contained in the Dam Emergency Action Plans which are a limited distribution documents. The potential injury and death from a short notice dam failure could be in the 100s. Total losses within the Visalia jurisdiction could exceed \$2,000,000.</p>
Drought	<p><u>Impacts:</u> Drought produces a variety of impacts that span many sectors of the economy. Reduced crops productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality; and rationing are a few examples of direct impacts. These problems can result in increased prices for food and lumber, unemployment, reduced tax revenues, increased crime, and foreclosures on bank loans to farmers and businesses, and migration. Populations that rely on or are affected by a lack of water or annual rainfall are most directly affected by droughts. The City is dependent on imported water for most of its needs. During prolonged droughts, water rationing is possible resulting in potentially higher water costs and loss of private and public landscaping.</p> <p><u>Costs:</u> Potential costs from drought to the City and its communities are difficult to quantify and are dependent upon drought duration and severity. In addition to increased costs for water, prolonged drought may result in reduced property values, loss of tax revenues and migration, all of which will cause economic losses.</p>
Extreme Heat	<p><u>Impacts:</u> Extreme heat events, present serious health risks to the City's most vulnerable populations. The effects of extreme heat (over 84°F) on human health are well documented. Increased temperature or extended periods of elevated temperatures can increase heat-related mortality, cardiovascular-related mortality, respiratory mortality, and heart attacks, while increasing hospital admissions and emergency room visits. Extreme heat can also affect a person's ability to thermo-regulate, causing heat stress and sometimes leading to death.</p>

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	<u>Costs:</u> Extreme heat results in increased electricity usage and additional health care costs. While additional power costs affect both commercial and residential properties, added health care costs impact individuals and families. Extreme heat may reduce economic activity if prolonged.
Flood	<u>Impacts:</u> Flooding occurs in the City during periods of heavy rain due to inadequate drainage. The flat geography also contributes to ponding. <u>Costs:</u> There are no accurate costs values associated with past flood events. Future flood incidents will likely result in structural damage and lost economic activity. Flood cost could be in excess of \$5,000,000.
Wildland Fire	<u>Impacts:</u> Structures near the urban/wildland interface are susceptible to wildland fire. Impacts on low density communities are limited. <u>Costs:</u> Costs to the City will include emergency response and damage to private property. Total costs are likely to be less than \$1,000,000.

Based upon previously occurring incidents and the risk assessment, the following hazards are most likely to affect Visalia:

- Climate Change
- Dam Inundation
- Drought
- Extreme heat
- Fire
- Flood

These hazards which may impact agriculture, the economic driver of the city, represent critical vulnerabilities. In addition, these are hazards that represent vulnerabilities to infrastructure.

2017 Tulare County MJLHMP - Annex J City of Woodlake

J.4 CAPABILITIES ASSESSMENT

FEMA REGULATION CHECKLIST: CAPABILITY ASSESSMENT

Capability Assessment

44 CFR § 201.6(c)(3): – The plan must include mitigation strategies based on the jurisdiction's “existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools.”

Elements

C1. Does the plan document the jurisdiction’s existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR § 201.6(c)(3)

C2. Does the Plan address the jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR § 201.6(c)(3)(ii)

Source: FEMA, *Local Mitigation Plan Review Tool*, March 2013.

Note: For coverage of Elements C3 – C5, see Section 8, Mitigation Strategies. For coverage of Element C6, see Section 9, Plan Maintenance.

The reason for conducting a capability assessment is to identify Woodlake’s capacity to successfully implement mitigation activities. Understanding internal and external processes, resources and skills forms the basis of implementing a successful HMP. Understanding strengths and weaknesses also helps ensure that goals and objectives are realistic and attainable.

The planning team conducted an assessment of the City’s capabilities that contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include authorities and policies, such as legal and regulatory resources, staff, and fiscal resources. Staff resources include technical personnel such as planners/engineers with knowledge of development and land management practices and an understanding of natural or human-caused hazards. The planning team also considered ways to expand on and improve existing policies and programs with the goal of integrating hazard mitigation into the day-to-day activities and programs of the City. In carrying out the capability assessment, several areas were examined:

- Planning and regulatory capabilities
- Administrative and technical resources
- Fiscal resources including grants, mutual aid agreements, operating funds and access to funds
- Technical and staff resources to assist in implementing/overseeing mitigation activities
- Previous and Ongoing Mitigation Activities

2017 Tulare County MJLHMP - Annex J City of Woodlake

Planning and Regulatory Capabilities: These include local ordinances, policies and laws to manage growth and development. Examples include land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes and zoning ordinances.

Table J-5: Woodlake Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Plan	<p>The City's General Plan provides a policy base to guide future growth within the City. It was created by planners, engineers and technical staff with knowledge of land development, land management practices, as well as human-caused and natural hazards. The General Plan:</p> <ul style="list-style-type: none"> • Develops and maintains the General Plan, including the Safety Element. • Develops area plans based on the General Plan, to provide more specific guidance for the development of more specific areas. • Reviews private development projects and proposed capital improvements projects and other physical projects involving property for consistency and conformity with the General Plan. • Anticipates and acts on the need for new plans, policies, and Code changes. • Applies the approved plans, policies, code provisions, and other regulations to proposed land uses. <p>The MJLHMP may be adopted as part of the Safety Element by the City Counsel. As the Safety Element is updated, revised hazard analysis from the MHLHMP will be incorporated. Safety Element actions will be aligned with MJLHMP mitigation measures.</p>	All		Planning
California Building Code Enforcement	The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California including housing, public buildings and maintenance facilities. Improved	Earthquake, Fire, Floods, Severe		Regulatory

2017 Tulare County MJLHMP - Annex J City of Woodlake

Table J-5: Woodlake Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	<p>safety, sustainability, maintaining consistency, new technology and construction methods, and reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.</p> <p>California's building codes are published in their entirety every three (3) years. Amendments to California's building standards are subject to a lengthy and transparent public participation process throughout each code adoption cycle. The California Seismic Safety Commission provides access to an array of regulatory and advisory information at: http://www.seismic.ca.gov/cog.html</p>	winter storm/high winds		
Capital Improvement Program (CIP)	<p>The City's CIP provides a foundation and planning tool to assist in the orderly acquisition of municipal facilities and to assure that service needs for the future are met. The CIP provides direct or contract civil, structural, and mechanical engineering services, including contract, project, and construction management.</p> <p>The MJLHMP will be used to select potential projects for the CIP. As the CIP is updated, additional mitigation measures will be analyzed and included in the Woodlake section of the MJLHMP. Funding for CIP projects identified in the MJLHMP will be reviewed for mitigation grant program eligibility.</p>	Dam Failure, Earthquake, Fire, Floods, Landslides, Levee failure, Severe winter storm/high winds		Planning
City Code of Ordinances	The purpose of this code is to establish the minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation, and safety to life and property from fire and other hazards attributed to the built environment; to regulate and control the demolition of all buildings and structures, and for related purposes.	Earthquake, Fire, Flooding,		Regulatory

2017 Tulare County MJLHMP - Annex J City of Woodlake

Table J-5: Woodlake Planning and Regulatory Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
	The MJLHMP will provide both hazard descriptions and mitigation actions that may address energy conservation, fire protection and development in hazard prone areas. The maps of Visalia related hazards will be used to augment other mapping products to protect public health and safety when updating City Code.			

2017 Tulare County MJLHMP - Annex J City of Woodlake

Administrative and Technical: These capabilities include community (including public and private) staff and their skills and tools used for mitigation planning and implementation. They include engineers, planners, emergency managers, GIS analysts, building inspectors, grant writers, and floodplain managers.

Table J-6: Woodlake Administrative and Technical Capabilities

Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
City Public Works Department	Maintains and operates a wide range of local equipment and facilities as well as provides assistance to members of the public. Services include providing sufficient potable water, reliable waste water services, street maintenance, storm drainage systems, street cleaning, street lights and traffic signals.	All		Technical
Procurement Department	Provides a full range of municipal financial services, administers several licensing measures, and functions as the plan participant's Procurement Services Manager.	All		Technical
City Fire Department	Maintains and updates the Emergency Operations Plan and coordinates local response and relief activities within the Emergency Operation Center. Works closely with County, State, and Federal partners to support planning and training and to provide information and coordinate assistance.	All		Technical

Fiscal: These capabilities include general funds, property sales, bonds, development impact fees, or other fees.

Table J-7: Woodlake Fiscal Capabilities

Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
General Fund	Program operations and specific projects.	All		Financial, Financial Services Department

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Education and Outreach: Programs in place such as fire safety programs, hazard awareness campaigns, public information or communications offices.

Table J-8: Woodlake Education and Outreach Capabilities				
Name	Description (Effect on Hazard Mitigation)	Hazards Addressed	Updated since 2010 (if yes, identify parts applicable to mitigation)	Capability Type (Regulatory, Administrative, Technical, or Financial) If known
Tulare County Association of Governments (TCAG)	TCAG is committed to improving the quality of life for residents and visitors throughout the County. They address traffic congestion, coordinate regional transit programs to make getting around easy and convenient, work to improve air quality and strive to continue to meet national standards. TCAG addresses current and future rail needs and possibilities and gathers data which is used by the census and the public to properly forecast housing and transit needs.	All		Education and Outreach
Woodlake Website http://www.cityofwoodlake.com/ and other social media	Provides easily accessible conduit to information about planning and zoning, permits and applications and programs that address hazard mitigation such as clean energy efforts. The updated MJLHMP will be posted to City media sites. As the planned is reviewed annually and new updates made, information on the planning process will be included on web sites and announced on social media.	All		Education and Outreach

J.5 MITIGATION STRATEGY

Table J-9 lists the City specific mitigation actions from the 2011 Plan and provides their status.

Table J-9: Woodlake - Specific Mitigation Actions						
No.	Selected (Y/N)	Description	Prioritization Criteria	Facility to be Mitigated (if known)	Department or Agency	Status
1	Y	Construction of a new waste water treatment		WWTP	19 million	Completed 2012
2	Y	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	A, B, C, D, E	Not Applicable	City of Dinuba Development Services Dept.	Ongoing – Mitigation Action 1 in 2017 MJLHMP
3	Y	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	A, B, C	Unknown	City of Dinuba Development Services Dept.	Ongoing – Mitigation Action 2 in 2017 MJLHMP

Prioritization Criteria

- A local jurisdiction department or agency champion currently exists or can be identified
- The action can be implemented during the 5-year lifespan of the HMP
- The action may reduce expected future damages and losses (cost-benefit)
- The action mitigates a high-risk hazard
- The action mitigates multiple hazards

Strategies 2 and 3 from the 2011 HMP are still relevant to this update. **Table J-10** contains an updated set of potential mitigation strategies for the new Plan. Mitigation actions were derived from numerous sources including the General Plan, City Code, Capital Improvement Plan and input from the public and stakeholders.

Table J-10: Woodlake Specific Actions and Applicable Hazards			
Strategy Number	Mitigation Strategy	Applicable Hazards	Mitigation Type
1	Create a GIS-based pre-application review for new construction and major remodels of residential and/or non-residential structures in hazard areas, such high and/or very high wildfire areas.	All	Mit.
2	Integrate the Tulare County MJLHMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Mit.
3	Permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.	All	Mit.
4	Designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.	All	Mit.
5	Except as otherwise allowed by State law, ensure that all new buildings intended for human habitation are designed in compliance with the latest edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).	All	Mit.
6	Ensure that development in very high or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards.	FR	Mit.
7	Identify and map existing housing structures that do not conform to contemporary fire standards in terms of building materials, perimeter access, and vegetative hazards in very high fire hazard severity zones or state responsibility area by fire hazard zone designation. Identify plans and actions to improve substandard housing structures and neighborhoods.	FR	Mit.
8	Acquire, relocate, or elevate residential structures, in particular those that have been identified as Repetitive Loss (RL) properties that are located within the 100-year floodplain.	FL	Mit.
9	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	FL	Mit.

10	Reinforce County and local ramps, bridges, and roads from flooding through protection activities, including elevating the road and installing culverts beneath the road or building a higher bridge across the area that experiences regular flooding.	FL	Mit.
11	Work with FEMA Region IX to address any floodplain management issues that may have arisen/arise from the countywide DFIRM, Community Assessment Visits, and/or the DWR.	FL	Mit.
12	Increase participation in the NFIP by entering the Community Rating System program which through enhanced floodplain management activities would allow property owners to receive a discount on their flood insurance.	FL	Mit.
13	Continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact the County. This shall include, but not be limited to, flooding, dam failure, extreme weather, evacuation/transportation, mass care and shelter, and animal evacuation and sheltering.	All	Prep.
14	Continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.	EQ, FL, FR	Mit.
15	Develop a public outreach program that informs property owners located in the dam or levee inundation areas about voluntary flood insurance.	FL, DF, LF	Mit.
16	Promote public safety programs, including neighborhood watch programs, child identification and fingerprinting, public awareness and prevention of fire hazards, and other public education efforts.	CT	Mit.
17	Coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters using the California Standard Emergency Management System and the National Incident Management System.	All	Resp.
18	Participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.	All	Resp.
19	Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog and extreme heat conditions.	FG, EH	Resp.
20	Use Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.	FR, TR	Mit.

21	Require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation	All	Mit.
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An initial list of mitigation actions was selected from the mitigation strategies. Additional actions were added using the FEMA Mitigation Ideas. **Table J-11** provides the 2017 MJLHMP mitigation actions for the City. New priorities for mitigation actions are listed in the table.

Table J-11 Woodlake - Mitigation Actions					
Action Number	Mitigation Strategy	Department	Cost	Priority	Timeframe
1	Integrate the Tulare County HMP, in particular the hazard analysis and mitigation strategy sections, into local planning documents, including general plans, emergency operations plans, and capital improvement plans.	All	Unknown	Medium	One year
2	Seismically retrofit or replace public works and/or emergency response facilities that are necessary during and/or immediately after a disaster or emergency.	Public Works	Unknown	Low	5 or more years
3	Acquire, relocate, elevate, and/or floodproof critical facilities that are located within the 100-year floodplain.	Development	Unknown	High	5 or more years
4	Bravo Lake Lift Station – Construct a storm drain lift station project at Bravo Lake.	Public Works	\$2,000,000	High	2-5 years
5	Storm Water Master Plan - Update 2010 Storm Water Master Plan	Public Works	\$350,000	High	1 year
6	Culvert Expansion – Implement a City-wide culvert expansion program to enhance storm water flow.	Public Works	\$6,000,000	High	2-5 years
7	Recharge Basin Design and construct storm water recharge basins for storm water storage.	Public Works	\$3,000,000	High	2-5 years

8	Groundwater Monitoring - Monitor Drought Conditions by tracking well depth and rate of increase/decrease in groundwater levels.	Public Works	N/A	Med.	Ongoing
9	Groundwater Conservation - Enforce new ordinance restrictions on water usage within Woodlake City Limits	Public Works	N/A	Med.	Ongoing
10	Landscaping Design - Require all new development to reduce water usage through the incorporation of xeriscaping and removal of "landscaping strips".	Building	N/A	Med.	Ongoing
11	Water Education - Notify residents of potential water leaks within their homes by monitoring the water meter notifications for leaks.	Public Works	N/A	Med.	Ongoing
12	Building Code Adoption - Immediately adopt the newest versions of the California Building Code when they are made available.	Building	N/A	Med.	Ongoing
13	Building Assessment and Retrofit - Require a structural review of commercial and industrial structures prior to the issuance of a building permit. When necessary, require improvements to improve structural conditions of the building.	Building	N/A	Med.	Ongoing
14	Temperature Awareness for the Public and Assistance to Vulnerable Populations - Notify residents when extreme heat is forecasted and provide the City Hall as a location for heating and cooling.	Admin.	N/A	Med.	Ongoing
15	Sandbag Flood Prevention - Provide sandbags, free of charge, to residents that may have higher risks of minor flooding to their property.	Fire	Minimal	Med.	Ongoing
16	Improve Stormwater Capacity - Install new stormwater pipes to increase capacity in the southern part of the City, where flooding is most likely.	Public Works	Unknown	High	2-5 years
17	Waterway Maintenance - Remove debris and vegetation from waterways that divert stormwater to prevent flooding within the city.	Public Works	Unknown	High	Ongoing
18	Floodplain Development - Limit development in floodplains by encouraging the protection of open space areas.	Building	N/A	Med.	Ongoing

19	Disaster Response - Enforce the City's Emergency Response Ordinance to provide shelter after a disaster.				
20	On-Site Storm Basins - Require residential subdivisions to consider dual purpose storm retention (retention park) in new developments.				

Incorporation into other plans: FEMA requires the HMP be consistent with and incorporated into other planning documents and processes. In the City of Tulare, these other planning documents and process include the General Plan Update, the City Code zoning ordinances and various infrastructure master plans. The term incorporated in planning terms means that the HMP and the other plans have similar community goals and policies in that they advocate similar land use patterns, and they are consistent in their guidance of direction and rate of growth. As other plans are updated or created, the HMP should be used as guidance.

Many of the plans listed in the Capabilities Assessment mentioned in Section J.4 have not been updated since the 2011 MJLHMP was adopted. Recommended ways to use and incorporate the new Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Incorporation of the Woodlake Annex into the Health and Safety Element of the City's General Plan.
- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances
- Addition of defined mitigation actions to capital improvement programming
- Inclusion of Plan elements into development planning and practices
- Resource for developing and/or updating emergency operations plans, emergency response plans, etc.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms.

At a minimum, each of the responsible agencies/departments noted in **Table 6.3 and the Annexes of Appendix J** will review and reference the Plan and revise and/or update the legal and regulatory planning documents, manuals, codes, and ordinances as appropriate. Specific incorporation of the Plan risk assessment elements into the natural resources and safety elements of each jurisdictions' General Plans (County comprehensive plan) and development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

Appendix K: Plan Adoption Resolutions



FEMA

March 27, 2018

Dave Lee
Office of Emergency Services Specialist
Tulare County Office of Emergency Services
5957 South Mooney Boulevard
Visalia, CA 93277

Dear Mr. Lee:

We have completed our final review of the *Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan*, officially adopted by Tulare County on March 20, 2018 and found the plan to be in conformance with Title 44 Code of Federal Regulations (CFR) Part 201.6 *Local Mitigation Plans*. A list of the status of participating jurisdictions is enclosed with this letter.


The approval of this plan ensures Tulare County's continued eligibility for project grants under FEMA's Hazard Mitigation Assistance programs, including the Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program. All requests for funding, however, will be evaluated individually according to the specific eligibility, and other requirements of the particular program under which applications are submitted.

Also, approved hazard mitigation plans are eligible for points under the National Flood Insurance Program's Community Rating System (CRS). Additional information regarding the CRS can be found at <https://www.fema.gov/national-flood-insurance-program-community-rating-system> or through your local floodplain manager.

FEMA's approval of the *Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan* is for a period of five years, effective starting the date of this letter. Prior to March 27, 2023, Tulare County and all participating jurisdictions are required to review and revise the plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval in order to continue to be eligible for mitigation project grant funding. The enclosed plan review tool provides additional recommendations to incorporate into the plan during the plan maintenance process.

If you have any questions regarding the planning or review processes, please contact Alison Kearns, Senior Community Planner, at (510) 627-7125 or by email at alison.kearns@fema.dhs.gov.

Sincerely,


Jeffrey D. Lusk
Division Director
Mitigation Division
FEMA Region IX

Enclosure

cc: Julie Norris, Mitigation and Dam Safety Branch Chief, California Governor's Office of Emergency Services
Jennifer Hogan, State Hazard Mitigation Officer, California Governor's Office of Emergency Services

Status of Participating Jurisdictions as of March 27, 2018

Jurisdictions – Adopted and Approved

#	Jurisdiction	Date of Adoption
1	Tulare County	3/20/2018

Jurisdictions – Approvable Pending Adoption

#	Jurisdiction
1	Dinuba, City of
2	Exeter, City of
3	Farmersville, City of
4	Lindsay, City of
5	Porterville, City of
6	Tulare, City of
7	Visalia, City of
8	Woodlake, City of
9	Tulare County Office of Education
10	Tule River Tribe

RESOLUTION _____
A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE ADOPTING
TULARE COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN

WHEREAS, in 2016, the Federal Emergency Management Agency required California Office of Emergency Services (CalOES) to have each county's Office of Emergency Services and their respective participating jurisdictions update the county-wide hazard mitigation plan. This process occurs about every 5 years; and

WHEREAS, this resolution represents Porterville's participation in the Tulare County Multi-jurisdictional Local Hazard Mitigation Plan. This updated Plan, which is the result of a coordinated two-year effort, will make the City continue to be eligible for Mitigation Grant Funding through CalOES, for post-emergency mitigation, such as infrastructure repair; and

WHEREAS, the City of Porterville recognizes the threat that natural hazards pose to people and property within our community; and

WHEREAS, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

WHEREAS, the City of Porterville fully participated in the FEMA-prescribed mitigation planning process to prepare this Multi-Hazard Mitigation Plan; and

WHEREAS, the California Governor's Office of Emergency Services and Federal Emergency Management Agency, Region IX officials have reviewed the "Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan" (March, 2018) and approved it (March 7, 2018) contingent upon this official adoption of the participating government and entities; and

WHEREAS, an adopted Multi-Hazard Mitigation Plan enables access to future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

NOW, THEREFORE, BE IT RESOLVED, that the City of Porterville adopts the "Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan" as an official plan; and

BE IT FURTHER RESOLVED, the City of Porterville will submit this Adoption Resolution to the California Governor's Office of Emergency Services and Federal Emergency Management Agency, Region IX officials to enable the Plan's final approval.

PASSED, APPROVED AND ADOPTED this 15th day of May, 2018.

Milt Stowe, Mayor

ATTEST:
John D. Lollis, City Clerk

By _____

Patrice Hildreth, Chief Deputy City Clerk



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Intent to Set a Public Hearing to Consider Annual Adjustment of Fees by Application of the ENR Cost Index

SOURCE: Public Works

COMMENT: In accordance with prior City Council authorization, staff calculates and adjusts all of the attached fees annually. The policy as of 2003 is to give the Council notice of all the attached adjustments annually (whether they are subject to the Mitigation Fee Act or not) 60-days before the new fees become effective.

City staff endeavors to honor its commitment to the Home Builders Association (HBA) by providing 60-days notice prior to the effective date of the annually adjusted fees. The Home Builders Association of Tulare/Kings Counties, Inc., has requested that they be notified of the annual adjustment of the attached fees, which are adjusted annually by application of the ENR Cost Index. Notification was sent to HBA, developers and Porter Vista Public Utilities on May 4, 2018. Most of the fees in Exhibit "H" Connection Fees were in effect before January 1, 1989, (the effective date of the Mitigation Fee Act) and have only been increased by the Engineering News Record 20 City Construction Cost Index. The fees subject to the Act, that were adopted or increased after its effective date, were adopted or increased in accordance with those regulations. Again this year, City staff is giving notice for the fees covered by the Mitigation Fee Act. The applicable fees are attached to City Council's packet as Exhibit "A" and Exhibit "H".

The fee adjustments (6.63%) are shown in the attached Exhibit "A" Park Impact Fees and Exhibit "H" Connection Fees and will go into effect on July 1, 2018.

RECOMMENDATION: That City Council set a Public Hearing for June 19, 2018, pursuant to Government Code Section 66026, for consideration to implement the City of Porterville's Impact Fee ENR Cost Index auto escalator.

ATTACHMENTS:

1. Exhibit A 2018
2. Exhibit H 2018 All Fees

Appropriated/Funded:

Review By:

Department Director:

Mike Reed, Acting Public Works Director

Final Approver: John Lollis, City Manager

EXHIBIT 'A'

PARK IMPACT FEES ◇

	Effective Date <u>07/01/17</u>	Effective Date <u>07/01/18*</u>
1. Single Family (RS-1 & RS-2) Δ	\$777	\$829
2. Multiple Family Per Unit Δ	\$603	\$643
3. Mobile Homes Δ	\$436	\$465

To be increased annually by the Engineering News Record Construction Cost Index.

*MO # TBD - Based on ENR Index = 10958.79

MO #12-060617 – Based on ENR Index = 10277.64

MO #16-060716 - Based on ENR Index = 10242.09

MO #13-060215 Approved increase of all suspended years (17% total as compounded)

FY 2014/2015 No report sent to City Council

MO #16-040213 Fee increase suspended for one year

MO #09-041712 Fee increase suspended for one year

MO #13-041911 Approved suspending impact fees for 2011/2012

MO #20-040610 Fee increase suspended for one year

Δ Resolution #2-99 (Establishing ENR Annual Adjustment)

◇ Fees Covered by the Mitigation Fee Act

Revised – 2018-05-04

EXHIBIT 'H'
CONNECTION FEES

		EFFECTIVE DATE	
	<u>TRUNK LINE SEWER FEES</u>	7/1/17	7/1/18*
1.	Hillside Development - per acre (Δ 142-02) ◇ _	\$1,157	\$1,234
2.	Single Family (RS-1 & RS-2) - per acre (Δ 94-90)	\$2,170	\$2,314
3.	Duplex (RM-1) - per acre (Δ 94-90)	\$5,040	\$5,374
4.	Multiple Family (RM-2 & RM-3) - per acre (Δ 94-90)	\$11,758	\$12,537
5.	Institutional - per acre**(Δ 94-90)	\$817	\$871
6.	Commercial & Professional Office - per acre**(Δ 94-90)	\$3,064	\$3,267
7.	Industrial - per acre**(Δ 94-90)	\$13,081	\$13,948

		EFFECTIVE DATE	
	<u>TREATMENT PLANT FEES</u>	7/01/17	7/01/18*
1.	Single Family and Multiple Family - per unit (Δ 67-03)	\$3,556	\$3,792
2.	Commercial and Industrial - per sewer connection (Δ 67-03)	\$12.71 (per gpd) (\$3,556)	\$13.55 (per gpd) (\$3,792)

		EFFECTIVE DATE	
	<u>SEWER CONNECTION CHARGES</u>	7/01/17	7/01/18*
1.	Six Inch or Smaller - per foot	\$11.72	\$12.50
2.	Eight Inch - per foot	\$15.38	\$16.40

		EFFECTIVE DATE	
	<u>WATER TRUNK FEES</u>	7/01/17	7/01/18*
1.	Hillside Development - per acre (Δ 142-02) ◇ _	\$1,703	\$1,816
2.	Single Family (RS-1 & RS-2) - per acre (Δ 93-90)	\$3,551	\$3,786
3.	Duplex (RM-1) - per acre (Δ 93-90)	\$8,889	\$9,478
4.	Multiple Family (RM-2 & RM-3) - per acre (Δ 93-90)	\$20,753	\$22,128
5.	Institutional**(Δ 93-90)	\$2,317	\$2,471
6.	Commercial and Professional Office - per acre**(Δ 93-90)	\$2,669	\$2,846
7.	Commercial Crop Cultivation – per acre**(Ord. 1813) D	\$667	\$711
7.	Industrial - per acre**(Δ 93-90)	\$20,497	\$21,855

		EFFECTIVE DATE	
	<u>WATER CONNECTION FEE</u>	7/01/17	7/01/18*
1.	Connection Charges - per foot	\$10.02	\$10.68

		EFFECTIVE DATE	
	<u>STREET LIGHT FEES</u>	7/01/17	7/01/18*
1.	Multiple Family - per foot	\$3.04	\$3.24
2.	Commercial/Industrial - per foot	\$3.84	\$4.09

<u>STORM DRAINAGE FEES</u>		EFFECTIVE DATE	
		7/01/17	7/01/18*
1.	Single Family (RS-1 & RS-2) - per acre (inc. Hillside Dev.) (Δ 95-90)	\$5,849	\$6,237
2.	Duplex (RM-1) - per acre (Δ 95-90)	\$7,802	\$8,319
3.	Multiple Family (RM-2 & RM-3) - per acre (Δ 95-90)	\$11,706	\$12,482
4.	Commercial, Industrial & Institutional - per acre (Δ 95-90)	\$15,601	\$16,635

<u>FIRE HYDRANT FEES</u>		EFFECTIVE DATE	
		7/01/17	7/01/18*
1.	Multiple Family - per foot	\$3.98	\$4.24
2.	Commercial/Industrial - per foot	\$5.88	\$6.27

<u>TRANSPORTATION IMPACT FEES</u> ◇		EFFECTIVE DATE	
		7/01/17	7/01/18*
1.	Single Family (RS-1 & RS-2) per unit (Δ 50-98)	\$1,251	\$1,334
2.	Multiple Family (per unit) (Δ 50-98)	\$846	\$902
3.	General Office/ Institutional (per 1,000 sq ft of gross floor) (Δ 50-98)	\$3,220	\$3,433
4.	Commercial (per 1,000 square feet of gross floor area) (Δ 50-98)	\$6,125	\$6,531
5.	Light Industrial (per 1,000 square feet of gross floor area) (Δ 50-98)	\$913	\$974

<u>FRONTAGE IMPROVEMENT VALUATION THRESHOLD</u>		EFFECTIVE DATE	
		7/01/17	7/01/18*
1.	Frontage Improvements are required when the Building Permit valuation is over ◆ (Beginning 2/19/04 - over a two-year period)	\$22,240	\$23,714

*MO # TBD - Based on ENR Index = 10958.79

MO #12-060617 - Based on ENR Index = 10277.64

MO #16-060716 - Based on ENR Index = 10242.09

MO #13-060215 Approved increase of all suspended years (17% total as compounded)

FY 2014/2015 No report sent to City Council

MO #16-040213 Fee increase suspended for one year

MO #09-041712 Fee increase suspended for one year

MO #13-041911 Fee increase suspended for one year

MO #20-040610 Fee increase suspended for one year

Δ Resolution Establishing ENR Annual Adjustment

◆ Ordinance No. 1644 dated 2-19-04 (includes Annual Adjustment by ENR)

◇ Fees Covered by the Mitigation Fee Act

**Institutional, Commercial and Industrial water and sewer trunk line fees will be collected based upon the amount stated above, but shall be adjusted after monitoring of actual usage to the following fees:

Water - \$187.47 per 100 GPD of actual average demand (adjusted annually by the ENR Construction Cost Index).

Sewer - \$159.34 per 100 GPD of actual daily flow (adjusted annually by the ENR Construction Cost Index).

MKR:vs



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Authorization to Participate in Southern California Edison's Charge Ready Program for Transit Bus Electrification

SOURCE: Public Works

COMMENT: To meet California's goal to reduce greenhouse gases and air pollution, the state will have to significantly increase the electrification of cars, buses, medium-duty and heavy-duty trucks and industrial vehicles and equipment.

To support California's zero-emission vision, Southern California Edison (SCE) recommends a Clean Power and Electrification Pathway that puts more than 7 million electric vehicles and more than 200,000 electric trucks and buses on California's roads and in its freight yards.

SCE's 2017 transportation plan and 2018 priority pilot programs address early steps to increase electric vehicle adoption. One of the 2018 priority pilot projects is transit bus electrification, where SCE will fund the infrastructure cost of installing up to 20 electric charge ports at bus yards. SCE efforts will focus on systems in underserved communities that are disproportionately impacted by pollution from buses. This transit bus electrification pilot project will be under SCE's Charge Ready Program.

Under this program, SCE will provide a turnkey approach to deploying transit bus charging installation with a focus on reducing costs and complexity. To do so, SCE will install and maintain the complete electric infrastructure serving charging stations at no cost to the City. SCE will qualify charging station vendors based on several key technical requirements, and SCE will coordinate installation with the vendor the City selects to complete deployment. Finally, SCE will provide a rebate to offset some or all the costs for the charging stations and their installations. As a condition to participate in the Charge Ready Program, the City must grant SCE an easement in the property where the charging station infrastructure will be deployed. Operating costs, including equipment repairs and maintenance, EV charging network subscription, and electricity will be the City's responsibility.

In 2017, the City was selected to participate in SCE's Charge Ready Program that deployed three public electric vehicle (EV) charging stations at the Centennial parking lot. This project highlighted the successful partnership with SCE to deploy the City's first EV charging stations for public use.

Until the announcement of this pilot project, staff had planned to submit an

application to the Federal Transit Administration (FTA) to fund the electric transit bus charging station infrastructure, but now staff is recommending to first apply to participate in SCE's Charge Ready Program. If selected to participate in SCE's Charge Ready Program, the City will benefit in SCE's turnkey approach that focuses on reducing costs and complexity, and maximize the use of local partnerships and local funding. However, staff is still planning to submit an FTA application for the bus canopies and renewable energy component of the electric transit bus project.

The Council may authorize staff's submittal of the application and to further its commitment to a zero-emission transit fleet by adoption of a resolution.

RECOMMENDATION: That the City Council:
 1. Authorize staff to submit an application to participate in Southern California Edison's Charge Ready Program; and
 2. Approve the draft resolution.

ATTACHMENTS: 1. Draft Resolution

Appropriated/Funded:

Review By:

Department Director:

Mike Reed, Acting Public Works Director

Final Approver: John Lollis, City Manager

RESOLUTION # _____ - 2018

**A RESOLUTION OF THE CITY COUNCIL OF THE
CITY OF PORTERVILLE AUTHORIZING STAFF TO ACT ON BEHALF
OF THE CITY FOR THE PURPOSE OF PARTICIPATING IN SOUTHERN
CALIFORNIA EDISON'S CHARGE READY PROGRAM.**

WHEREAS, California is home to some of the worst local air quality in the nation;
and

WHEREAS, Southern California Edison (SCE) aims to be part of the solution through the development of four pilot projects approved by the California Public Utilities Commission; and

WHEREAS, SCE's 2018 Pilot Programs are designed to further the adoption of electric transportation and will lay a foundation to help reduce air pollution and greenhouse gas emissions in our state.

WHEREAS, the City of Porterville is committed to electrifying its transit fleet to support California's policies to reduce greenhouse gas and air pollutant emission; and

WHEREAS, the City of Porterville desires to participate in SCE's Charge Ready Program to deploy electric infrastructure to support light-duty cars and trucks, medium-duty trucks and vans, and heavy-duty trucks and buses charging throughout SCE's service area.

NOW THEREFORE, BE IT RESOLVED AND ORDERED that the City Council of the City of Porterville does hereby Authorize Richard Tree, Transit Manager, to file and execute applications on behalf of the City of Porterville with Southern California Edison to fund the infrastructure cost of installing electric charge ports within the City of Porterville.

PASSED AND ADOPTED by the City Council of the City of Porterville, State of California, at a regular meeting of said Board Meeting held on May 15, 2018 by the following vote:

AYES: _____

NOES: _____

ABSENT: _____

Milt Stowe, Mayor

Resolution # _____-2018

ATTEST:

John D. Lollis, City Clerk

By: Patrice Hildreth, Chief Deputy City Clerk



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Request for Proclamation - Freedom Days in Porterville - June 14 through July 4, 2018

SOURCE: Administrative Services

COMMENT: At its meeting of October 1, 2013, the Council amended the process by which proclamations are approved, and affirmed the process at its meeting on February 21, 2017. The process requires that all proclamations must be sponsored by one Council Member, after which the request is then placed on the Council's agenda for consideration and approval by a majority of the Council.

The Porterville Flag Day Committee has requested that the Council consider approval of a proclamation to proclaim the period between June 14 and July 4, 2018, as "Freedom Days in Porterville". Council Member Flores is sponsoring this proclamation request. If approved, the applicants request that the proclamation be presented at the Flag Day Ceremony on June 14.

RECOMMENDATION: That the City Council consider approval of the request to proclaim the period between June 14 and July 4, 2018, as "Freedom Days in Porterville."

ATTACHMENTS: 1. Request for Proclamation

Appropriated/Funded: N/A

Review By:

Department Director:

Patrice Hildreth, Administrative Services Dir

Final Approver: John Lollis, City Manager



City of Porterville
REQUEST FOR PROCLAMATION



APR 24 2018

CITY OF PORTERVILLE
CITY CLERK OFFICE

Date of Request: 4/24/18

Name of Event/Individual: Flag Day
i.e. "Porterville Tourism Week", "Mr. John Doe"

Name of Sponsoring Organization: Flag Day Committee

Name of Contact Person: Dennis Shaffer

Address: 326 N Sycamore, Lindsay

Phone: (559) 920-7087 FAX: _____

E-mail: d1b1s@aol.com

I would like the proclamation: ☐ presented at a Council Mtg. ☐ mailed ☒ call for pick-up

Date(s) of Event: June 14, 2018 (Flag Day)

Date of Council Meeting to be presented, if applicable: _____
(Council meets 1st and 3rd Tuesdays of each month.)

Individual or representative attending Council Meeting to receive proclamation:

Dennis Shaffer

Please attach a sample of your proclamation, or the pertinent information needed to formulate your proclamation. If assistance is needed, or if you need a sample provided, or to return this form, contact:

Office of City Clerk
291 North Main Street
Porterville, CA 93257
(559) 782-7464 / Fax (559) 782-7452

All requests require a sponsorship by a member of the Council prior to being placed on a City Council Agenda for consideration, and are subject to approval by a majority of the Council. Please see the attached language regarding the process and timelines for submittal.

City Clerk's Section

Request Received: 4/24/18 Sponsored by: _____ Date: _____

Approved by Council: yes ☐ no ☐ Date: _____

Notification to Contact person done (date): _____ in writing ☐ by phone ☐

Items (s) ☐ mailed _____ ☐ faxed _____ ☐ picked up _____

Comment: _____

WHEREAS: There is a three week period between Flag Day, June 14, 2018, and Independence Day, July 4, 2018; and

WHEREAS: The local patriotic activities during this period have grown to involve the support of several community based institutions, service clubs and community organizations; and

WHEREAS: These organizations consist of the Elks Lodge, Porterville Emblem Club, American Legion, Veterans of Foreign Wars, Old Glory Club, Grocery Outlet, 50 W. Olive LLC, M.D. Atkinson, Save Mart Supermarkets, Porterville Chamber of Commerce, the Alta Mira Chapter of the Daughters of the American Revolution, Porterville Exchange Club, and The Porterville Recorder; and

WHEREAS: These organizations form the Porterville Flag Day Committee; and

WHEREAS: It is the wish of the Porterville Flag Day Committee for the entire community to join with them in the events occurring during this period; and

WHEREAS: The Porterville Flag Day Committee encourages all citizens to display "OLD GLORY" each day from Flag Day to Independence Day; and to participate in the 37th Annual Flag Day Ceremony at 50 W. Olive Avenue, 6:30 p.m. on June 14, 2018.

NOW, THEREFORE, I, Milt Stowe, Mayor of Porterville, on behalf of the Porterville City Council, do hereby proclaim the period between June 14 and July 4, 2018, as,

"FREEDOM DAYS IN PORTERVILLE"

and encourage all citizens to participate in the many patriotic activities scheduled during Freedom Days.

PROCLAIMED this 14th day of June, 2018.

Milt Stowe,
Mayor

Brian E. Ward,
Vice Mayor

Cameron J. Hamilton,
Council Member

Monte Reyes,
Council Member

Martha A. Flores,
Council Member



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Department of Finance Population Update

SOURCE: Community Development

COMMENT: The Community Development Department has received a summary report of Porterville's estimated population and housing data prepared by the State Department of Finance (DOF). The DOF prepares these estimates based upon information supplied by the City during the previous year, such as new housing units, demolitions, conversions, annexations and other factors, and comparing figures from the 2017 benchmark or a prior year's estimate. Annually, the Community Development Department reviews these estimates and forwards them to the City Council for review and adoption. After Council adoption, the City submits a request for certification to the State Controller.

After certification by the State, the January 1, 2018, population estimate of 60,798 for the city of Porterville becomes the basis used to distribute certain State subvention revenues to the City. The 2017 estimate was 60,114. This is an increase of 1.1% or 684 persons.

RECOMMENDATION: That the City Council authorize the Mayor Pro Tem to sign a request for State certification for the City of Porterville, January 1, 2018, at a population of 60,798.

ATTACHMENTS:

1. DOF Population Update Tables 2017-2018
2. Department of Finance Population Letter 2018

Appropriated/Funded:

Review By:

Department Director:

Jenni Byers, Community Development Director

Final Approver: John Lollis, City Manager

**California Department of Finance
Demographic Research Unit**

Report E-1

**Population Estimates for Cities, Counties, and the State
January 1, 2017 and 2018**

Released: May 1, 2018

Table of Contents (links to internal worksheets)

[City and County Population Estimates, January 1, 2017 and 2018](#)

[County and State Population Estimates, January 1, 2017 and 2018](#)

For more information:

<http://dof.ca.gov/Forecasting/Demographics/Estimates/E-1/>

Data Prepared by:

Demographic Research Unit
California Department of Finance
e-mail: ficalpop@dof.ca.gov
phone: 916-323-4086

E-1: City/County Population Estimates with Annual Percent Change
January 1, 2017 and 2018

State/County/City	Total Population		Percent Change
	1/1/2017	1/1/2018	
California	39,500,973	39,809,693	0.8
Tulare	470,716	475,834	1.1
Dinuba	24,687	24,873	0.8
Exeter	11,094	11,169	0.7
Farmersville	11,399	11,443	0.4
Lindsay	13,043	13,162	0.9
Porterville	60,114	60,798	1.1
Tulare	64,591	65,982	2.2
Visalia	133,841	136,246	1.8
Woodlake	7,711	7,786	1.0
Balance of County	144,236	144,375	0.1

Department of Finance
Demographic Research Unit
Phone: (916) 323-4086

For more information: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php>

Released on May 1, 2018

E-1: State/County Population Estimates with Annual Percent Change
January 1, 2017 and 2018

State/County	Total Population		Percent Change
	1/1/2017	1/1/2018	
California	39,500,973	39,809,693	0.8
Alameda	1,646,405	1,660,202	0.8
Alpine	1,156	1,154	-0.2
Amador	38,382	38,094	-0.8
Butte	226,403	227,621	0.5
Calaveras	45,175	45,157	0.0
Colusa	22,050	22,098	0.2
Contra Costa	1,139,313	1,149,363	0.9
Del Norte	27,060	27,221	0.6
El Dorado	186,223	188,399	1.2
Fresno	995,233	1,007,229	1.2
Glenn	28,730	28,796	0.2
Humboldt	136,430	136,002	-0.3
Imperial	187,921	190,624	1.4
Inyo	18,598	18,577	-0.1
Kern	896,101	905,801	1.1
Kings	149,559	151,662	1.4
Lake	64,740	65,081	0.5
Lassen	30,661	30,911	0.8
Los Angeles	10,231,271	10,283,729	0.5
Madera	156,963	158,894	1.2
Marin	263,262	263,886	0.2
Mariposa	18,137	18,129	0.0
Mendocino	89,092	89,299	0.2
Merced	275,104	279,977	1.8
Modoc	9,562	9,612	0.5
Mono	13,759	13,822	0.5
Monterey	442,149	443,281	0.3
Napa	141,784	141,294	-0.3
Nevada	98,613	99,155	0.5
Orange	3,198,968	3,221,103	0.7
Placer	383,173	389,532	1.7
Plumas	19,818	19,773	-0.2
Riverside	2,382,640	2,415,955	1.4
Sacramento	1,513,415	1,529,501	1.1
San Benito	56,879	57,088	0.4
San Bernardino	2,155,590	2,174,938	0.9
San Diego	3,309,509	3,337,456	0.8
San Francisco	874,008	883,963	1.1
San Joaquin	747,263	758,744	1.5
San Luis Obispo	279,210	280,101	0.3

San Mateo	770,256	774,155	0.5
Santa Barbara	450,025	453,457	0.8
Santa Clara	1,937,473	1,956,598	1.0
Santa Cruz	276,504	276,864	0.1
Shasta	178,148	178,271	0.1
Sierra	3,203	3,207	0.1
Siskiyou	44,655	44,612	-0.1
Solano	436,640	439,793	0.7
Sonoma	504,613	503,332	-0.3
Stanislaus	549,976	555,624	1.0
Sutter	96,919	97,238	0.3
Tehama	63,949	64,039	0.1
Trinity	13,634	13,635	0.0
Tulare	470,716	475,834	1.1
Tuolumne	54,725	54,740	0.0
Ventura	855,910	859,073	0.4
Yolo	218,673	221,270	1.2
Yuba	74,645	74,727	0.1

Department of Finance
Demographic Research Unit
Phone: (916) 323-4086

For more information: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php>
Released on May 1, 2018

May 15, 2018

Department of Finance
Demographic Research Unit
915 "L" Street, 8th Floor
Sacramento, CA 95814

To Whom It May Concern:

On May 2, 2018, the City of Porterville received Porterville's estimated population and housing data for 2017 from the State Department of Finance.

On May 15, 2018, the Porterville City Council adopted Porterville's new estimated population of 60,798 and authorized transmittal of this correspondence requesting the State Controller to certify Porterville's January 1, 2018, population as 60,798 by Minute Order No. _____.

Sincerely,

Brian E. Ward, Mayor Pro Tem



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Assignment of Airport Lease - Lot 32C

SOURCE: Finance

COMMENT: Pamela D. Hughes, Successor Trustee of the Estate of William E. Parham, current leaseholder of Lot 32C, is requesting the lease be assigned to the William E. Parham Irrevocable Trust u/t/d July 29, 2013. The Trustee is requesting City Council authorization to assume the existing lease between the City of Porterville and William Parham dated October 1, 2016. The lease will expire on September 30, 2026.

RECOMMENDATION: That the City Council approve the Assignment of the Airport Lease for Lot 32C between the City of Porterville and William Parham to Pamela D. Hughes, Trustee of the William E. Parham Irrevocable Trust u/t/d July 29, 2013.

ATTACHMENTS:

1. Locator Map
2. Assignment of Lease
3. Lessor's Consent to Assignment of Lease

Appropriated/Funded:

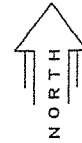
Review By:

Department Director:

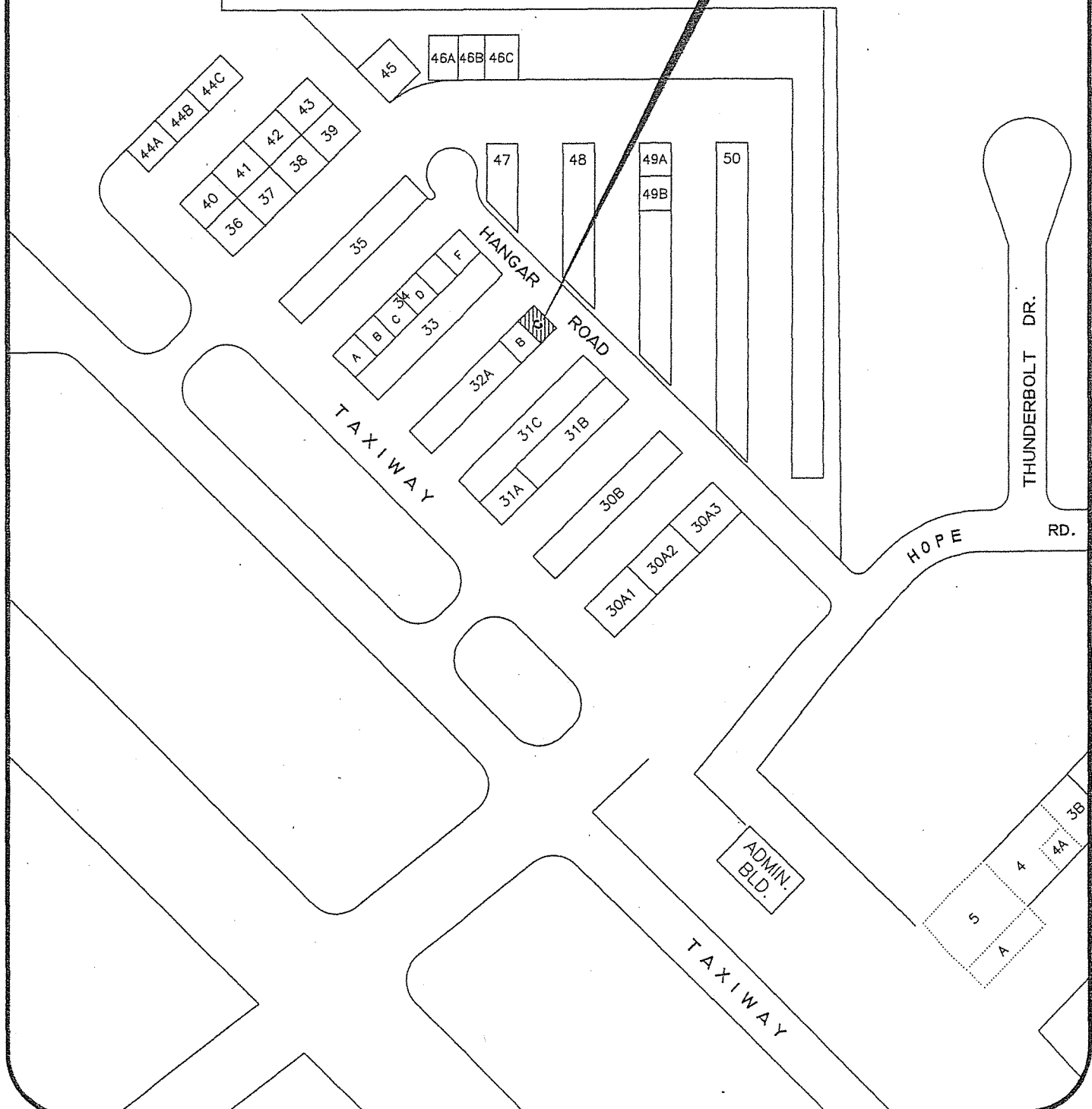
Maria Bemis, Finance Director

Final Approver: John Lollis, City Manager

AIRPORT LEASE SITES



SUBJECT LOCATION



**ASSIGNMENT OF LEASE
PORTERVILLE MUNICIPAL AIRPORT**

THIS AGREEMENT, made this 15th day of May, 2018, by and between William Parham, P. O. Box 664, Porterville, CA, lessee of Lot 32C at the Porterville Municipal Airport, as the Assignor, and Pamela D. Hughes, Trustee of the William E. Parham Irrevocable Trust u/t/d July 29, 2013, 177 N. Main Street, Porterville, CA, as the Assignee.

In consideration of the mutual covenants herein contained, each act to be performed hereunder, and for other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Effective May 15, 2018, Assignor hereby assigns, transfers and conveys to Assignee all of his right, title and interest as Lessee, in, to and under a certain Lease Agreement dated October 1, 2016 (hereinafter "Lease"), executed by and between the City of Porterville, as Lessor, and William Parham, as Lessee, providing for the letting of certain premises located at the Porterville Municipal Airport, Porterville, California, being more particularly described as follows:

Airport Hangar Lot No. 32C, containing a total area of approximately 2,100 square feet, and establishing a Lease terminating on September 30, 2026.

2. Effective May 15, 2018, Assignee hereby accepts and assumes all of the obligations, responsibilities and liabilities of Assignor under said Lease, and agrees to perform said Lease Agreement according to its terms, covenants and conditions, without exception, and Assignee understands and agrees that Landlord makes no warranty or representation that either Assignor or Assignee would be given an exclusive use in the Porterville Municipal Airport for the use thereof by Assignor and/or Assignee, except as provided in the Lease.

3. Upon execution of this Assignment of Lease and Landlord's consent hereto, the parties' Noticed Address shall be as set forth herein above. The parties understand there is a \$150 assignment fee, payable to the City of Porterville, and the Assignee must provide proof of aircraft and liability insurance within thirty (30) days of Council approval.

4. Assignor hereby covenants said Lease as valid and existing and is not in default as of the date of this Assignment.

5. This Assignment shall be binding upon and shall inure to the benefit of the respective parties, their successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this Assignment of Lease as of the date first above written.

ASSIGNOR:
Estate of William Parham

BY: Pamela D Hughes
Pamela D. Hughes, Successor Trustee

ASSIGNEE:
William E. Parham Irrevocable Trust
u/t/d July 29, 2013

BY: Pamela D Hughes
Pamela D. Hughes, Trustee

**LESSOR'S CONSENT TO ASSIGNMENT OF LEASE AGREEMENT
PORTERVILLE MUNICIPAL AIRPORT
AIRPORT HANGAR LOT NO. 32C**

The City of Porterville, a municipal corporation of the State of California, being the Landlord under the Lease for Airport Hangar Lot No. 32C, described in the foregoing Assignment, hereby consents to the foregoing Assignment of Lease upon the expressed condition, however, that there shall be no further assignment without the prior written consent of the Landlord.

Dated this 15th day of May, 2018.

CITY OF PORTERVILLE
"LESSOR"

BY: _____
Milt Stowe
MAYOR, CITY OF PORTERVILLE

ATTEST: _____
John Longley, CITY CLERK

APPROVED AS TO FORM:

BY: _____
Julia Lew, City Attorney



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Consideration of Approval of the Windsor Court Development Project

SOURCE: Community Development

BACKGROUND: The Project Review Committee reviewed a proposed residential subdivision on West Henderson Avenue, between Westwood Street and the Friant Kern Canal (PRC 2017-029), at its meeting on November 15, 2017. The Windsor Court subdivision would include the development of 80 detached single-family residential units on 16.77± acres of land (Assessor Parcel Numbers 240-050-033 and 034) with lots ranging from 4,375 to 9,932 square feet.

COMMENT: The applicant is requesting approval of the Windsor Court Tentative Subdivision Map located on the north side of Henderson Avenue, approximately midway between the Friant Kern Canal and North Westwood Street in the City of Porterville. Due to the proposed density, the development is inconsistent with the current zoning of RM-3 (High Density Residential) and the General Plan land use designation (GPLU) of High Density Residential. Based on the unique proposed configuration of parcels, a “5-pack” style development including what would typically be considered land locked and flag parcels, staff recommended a Planned Development, with a corresponding GPLU of low-medium density residential. As discussed below, the Planned Development designation allows a mechanism to create a subdivision that is unique in its configuration and on-going function. Requested entitlements include a tentative map, General Plan Amendment (High Density Residential to Low-Medium Density Residential) and a Zone Change from RM-3 (High Density Residential) to PD (Planned Development).

The site plan is included in this staff report as Attachment 2. Vehicular access to the site would be provided by Henderson Avenue. Connectivity throughout the development includes Theta Avenue, along the southern border of the Porter Slough on the north end of the project. Three streets connect Henderson and Theta Avenues: Elderwood, Creekview, and Redwood Streets. In order to support the necessary findings for a Planned Development, a condition of approval has been included for the applicant to install an ADA accessible pedestrian bridge crossing the Porter Slough that would connect the development with Elderwood Street to the north to accommodate walkability to the school campuses north of the Slough. An encroachment permit to cross the Porter Slough from the Central Valley Flood Protection Board will be required prior to the issuance of a building permit.

The project would be constructed in one phase, beginning soon after entitlements are approved, and the applicant, who is a builder as well as a developer, expects construction would be completed in approximately one year. Utilities required to serve the proposed project would include: water, sanitary sewer, storm drainage, electricity, and telecommunications infrastructure. Water service, sewage disposal and refuse collection would be provided by the City of Porterville. On-site drainage would be conducted by surface flow and on-site retention.

The proposed project would require gas, telephone, cable, and electrical improvements. Natural gas would be provided by The Gas Company; telephone services would be provided by AT&T; electric power would be provided by Southern California Edison Company; and

cable television would be provided by Charter Communications. The extent of work required for utilities and gas would be determined during final project design.

ANALYSIS: Based on review of the application materials, requested entitlements and submitted tentative map, the proposed project serves to fulfill the goals and policies of the General Plan as adopted. The Porterville General Plan land use description for Low-Medium Density Residential is to allow for a density that is typical single-family subdivisions, but allows for smaller lots. The maximum residential density is 9.0 units per gross acre. The General Plan promotes a mix of residential densities and compact neighborhood design. The Plan also provides for a mix of housing types to serve the needs of all Porterville residents. The Land Use Element of the General Plan includes Guiding Policies which include guiding new development into compact neighborhoods and providing sufficient land with appropriate parcel sizes to support a full range of housing types. While 40.3% of the General Plan Land Uses are identified as Residential, less than 1% is set aside as Low-Medium density residential.

The Porterville Development Ordinance provides that the purpose of the Planned Development zone district are to:

1. Establish a procedure for development on large lots of land in order to reduce or eliminate the rigidity, delays, and conflicts that otherwise would result from application of zoning standards and procedures designed primarily for small lots.
2. Ensure orderly and thorough planning and review procedures that will result in quality urban design.
3. Promote variety and avoid monotony in large developments by allowing greater freedom in selecting the means to provide access, light, open space, and amenities.
4. Ensure allocation and improvement of common open space in residential areas, and provide for maintenance of the open space at the expense of those directly benefiting from it.
5. Facilitate the assembly of properties that might otherwise be developed in unrelated increments to the detriment of surrounding neighborhoods.
6. Provide for the integration and administration of Specific Plans, adopted pursuant to State law into the City's land use regulations.

The Development Ordinance further defines findings that must be met in order to achieve the PD Zone District. A PD Plan and re-zoning shall only be approved if all of the following findings are made:

1. The proposed development is consistent with the General Plan and any applicable specific plan, including the density and intensity limitations that apply;
2. The site for the proposed development is adequate in size and shape to accommodate the proposed uses and all setbacks, open spaces, setbacks, walls and fences, parking area, loading areas, landscape, and other features required;
3. Adequate transportation facilities and public services exist or will be provided in accord with the conditions of development plan approval, to serve the proposed development; and the approval of the proposed development will not result in a reduction of traffic levels of service or public services so as to be a detriment to public health, safety, or welfare;
4. The proposed development will not have a substantial adverse effect on surrounding land uses and will be compatible with the existing and planned land use character of the surrounding area;
5. The improvements required and the manner of development adequately address all natural and man-made hazards associated with the proposed development and the project site, including, but not limited to, flood, fire, and seismic or soils hazards; and
6. The proposed development provides a more efficient use of the land and superior

architecture and site design compared to that which could be achieved through the application of the zoning district regulations that otherwise would apply.

The project as proposed is consistent with the findings for a Planned Development, would accommodate the atypical configuration of parcels, includes parkway trees, allows passive recreation and includes a pedestrian bridge connecting the project to adjacent neighborhoods and encourages walkability to the school campuses,

The surrounding land use to the north is almost exclusively developed with low density residential and to the south and west the proposed project is adjacent agricultural land and residential:

North: City – Single Family Residential Development (Porter Creek).

South: City – Agricultural land and Single Family Residential (Westwood Estates).

West: City – Rural Residential and agricultural land.

East: City – Retirement Home (Sierra Hills).

The amendments of the land use designation on the subject parcels from High Density Residential to Low-Medium Density Residential and the Zone Change from RM-3 to PD complies with the Planned Use Definition. Development of the site as proposed will provide needed housing in conformance with the City's General Plan, Housing Element, Porterville Development Ordinance and requirements of the California Subdivision Map Act and local ordinances.

ENVIRONMENTAL REVIEW: On April 12, 2018, the Environmental Coordinator made a preliminary determination that a Mitigated Negative Declaration would be appropriate for the proposed project in light of the studies prepared and with implementation of defined mitigation measures related to Biological Resources, Cultural Resources, Greenhouse Gas, and Noise. The Initial Study and proposed Mitigation Measures have been transmitted to interested agencies, groups, and individuals for a 30 day review period from April 14, 2018 through May 15, 2018. At the time of writing the staff report, no comments were received.

RECOMMENDATION:

1. Conduct a Public Hearing to receive input regarding the proposed General Plan Amendment, Zone Change and Tentative Map;
2. Adopt the draft resolution approving the Negative Declaration with mitigation measures for the Windsor Court Development Project (PRC 2017-029);
3. Adopt the draft resolution approving the General Plan Amendment
4. Approve the draft ordinance approving the Zone Change contingent upon approval of the General Plan Amendment; and
5. Adopt the draft resolution approving the Windsor Court Tentative Subdivision Map contingent upon approval of the General Plan Amendment and Zone change; and
6. Waive further reading of the draft ordinance, approving the Zone Change and order it to print.

ATTACHMENTS:

1. Locator Map
2. Windsor Court Tentative Subdivision Map
3. Draft Resolution - Environmental

4. Draft Resolution - General Plan Amendment
5. Draft Ordinance - Zone Change
6. Draft Resolution - Tentative Subdivision Map

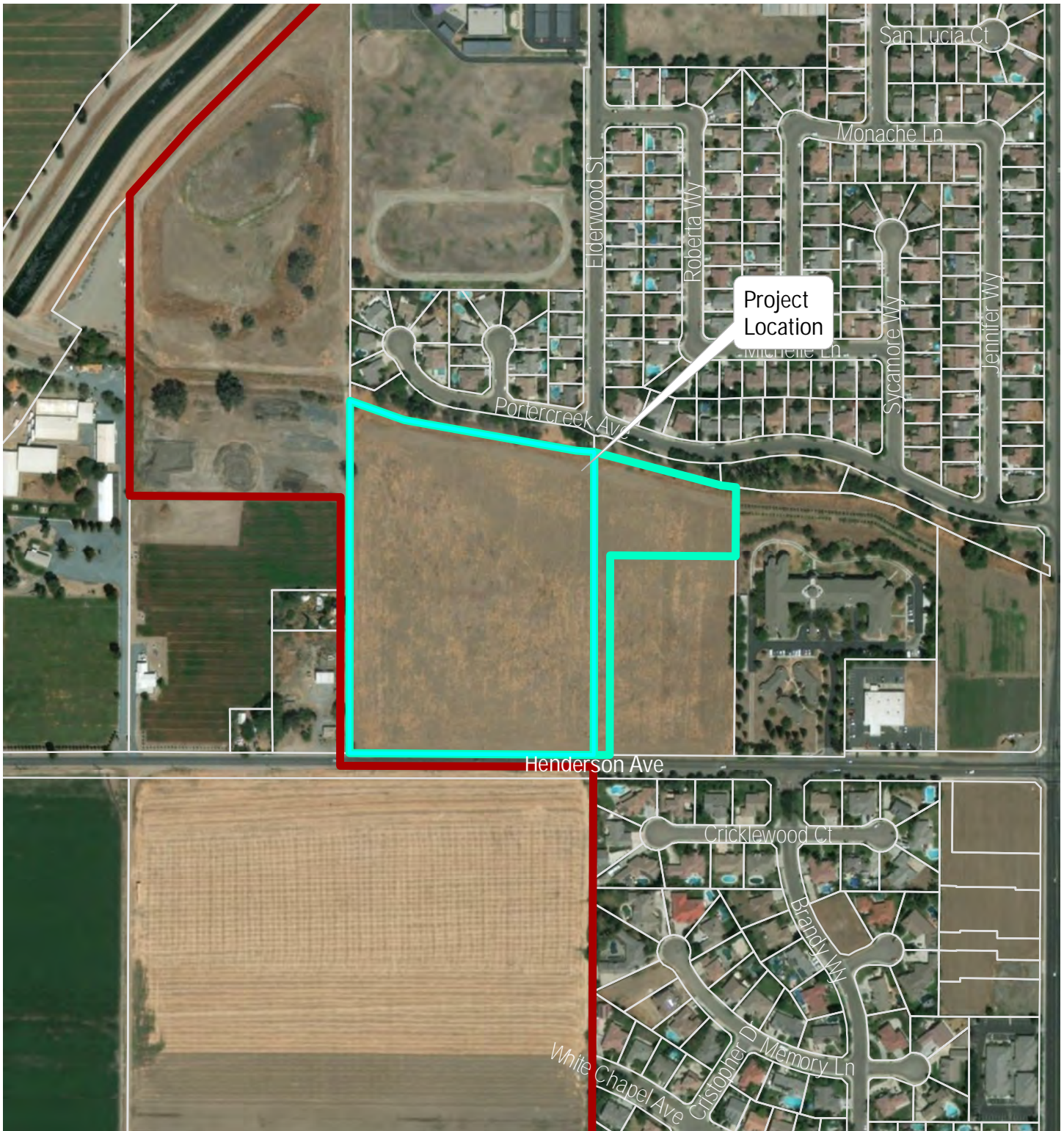
Appropriated/Funded:

Review By:

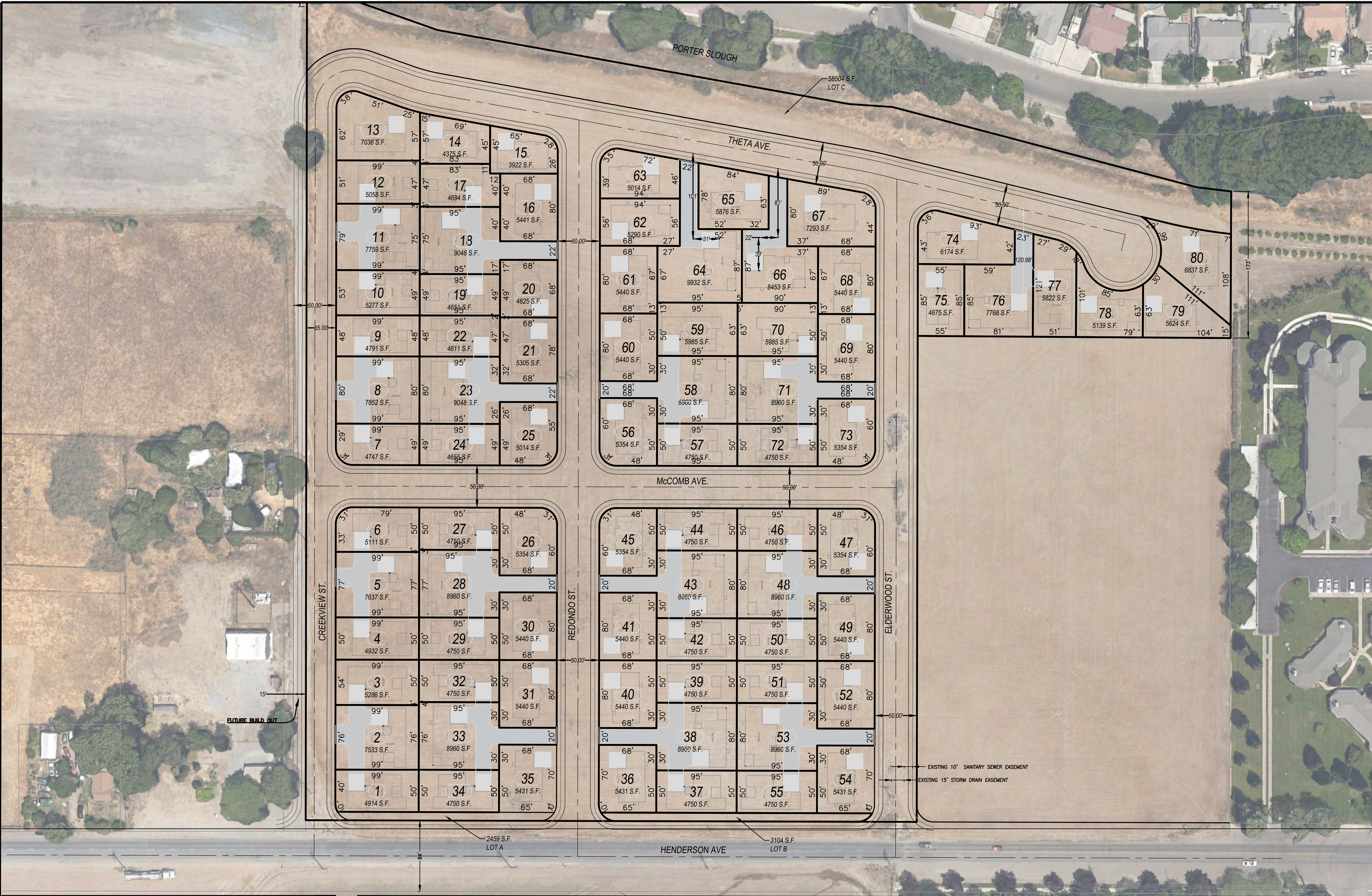
Department Director:

Jenni Byers, Community Development Director

Final Approver: Patrice Hildreth, Administrative Services Dir



PRC 2017-029
Windsor Court Development Project
Project Locator Map
1" = 400ft



WINDSOR COURT TENTATIVE SUBDIVISION MAP

BEING A PORTION PARCELS 33 & 34 RECORDED IN BOOK 240 OF
PARCEL MAPS AT PAGE 05, OF TULARE COUNTY RECORDS, LOCATED IN
THE SOUTHEAST 1/4 OF SECTION 19, TOWNSHIP 21 SOUTH, RANGE 27
EAST, MOUNT DIABLO BASE & MERIDIAN.

*CONDITIONAL USE PERMIT
**REZONE TO RM-2 FROM RM-3
ENGINEER/PLANNER:
DEVELOPER:

4-CREEKS INC.

LEGEND:

APN: 240-05-033 & 240-05-034
ACREAGE: 16.77 AC
FLOOD ZONE: ZONE X
ZONING (EXISTING): RM-3
ZONING (PROPOSED): RM-2
GENERAL PLAN (EXISTING): HDR
GENERAL PLAN (PROPOSED): MDR
ELECTRICITY: SOUTHERN CALIFORNIA EDISON
WATER: CITY OF PORTERVILLE
SEWER: CITY OF PORTERVILLE
TELEPHONE: AT&T
REFUSE: CITY OF PORTERVILLE
NATURAL GAS: SOUTHERN CALIFORNIA GAS
EXISTING USE: VACANT
PROPOSED USE: SINGLE FAMILY RESIDENTIAL

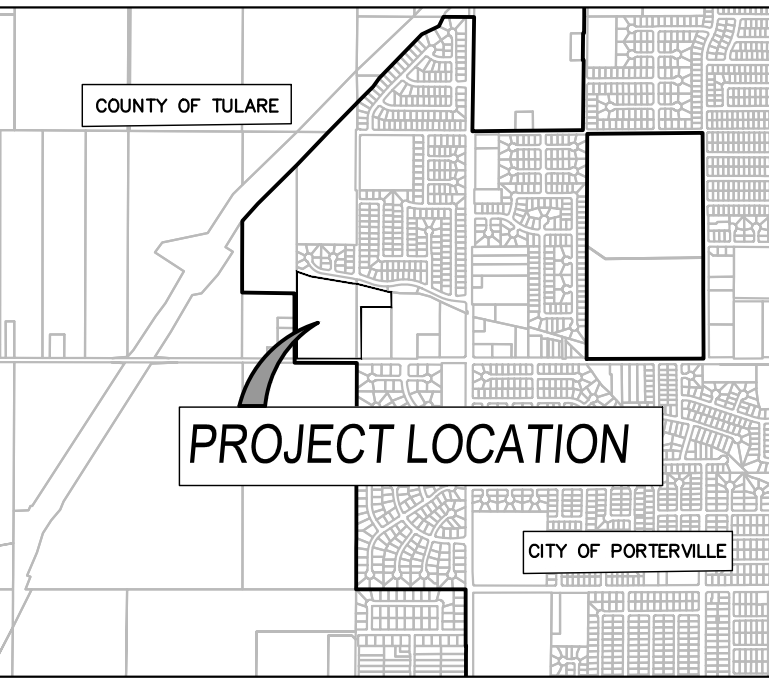
RM-2: GROSS ACREAGE: 16.77 AC
NET ACREAGE: 10.90 AC
TOTAL UNITS: 80 DU

GROSS DENSITY: TOTAL GROSS ACREAGE: 16.77 AC
TOTAL UNITS: 80 DU
GROSS DENSITY: 4.77 DU/AC

NET DENSITY: TOTAL NET ACREAGE: 10.90 AC
TOTAL UNITS: 80 DU
NET DENSITY: 7.33 DU/AC

LOTS TO BE DEDICATED TO CITY OF PORTERVILLE

- A) 2,459 SF
- B) 3,104 SF
- C) 58,504 SF

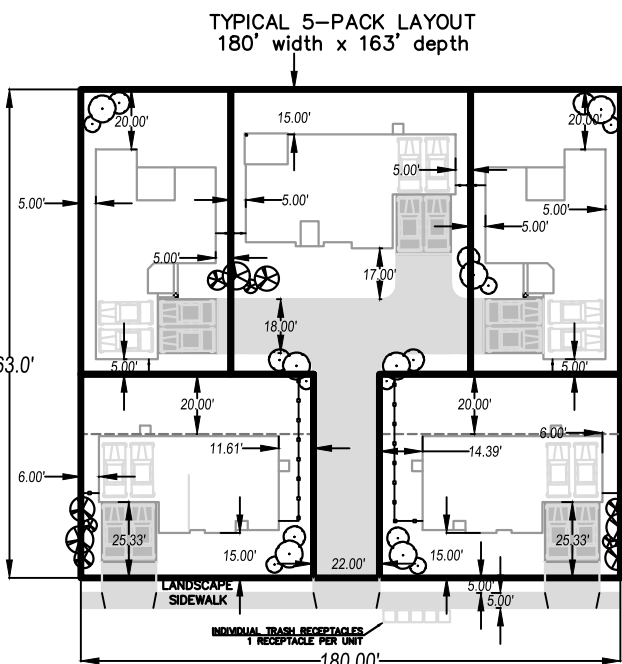


VICINITY MAP

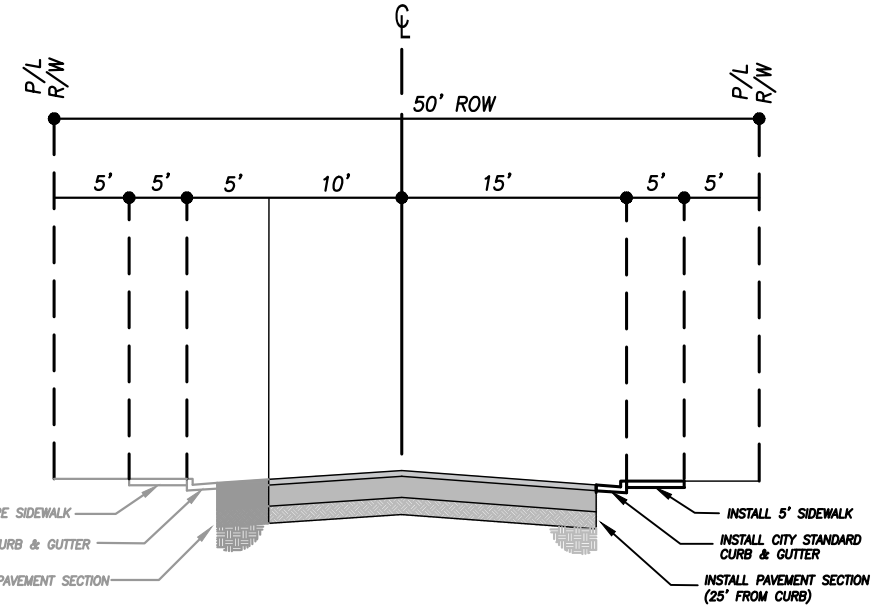
PREPARED BY:



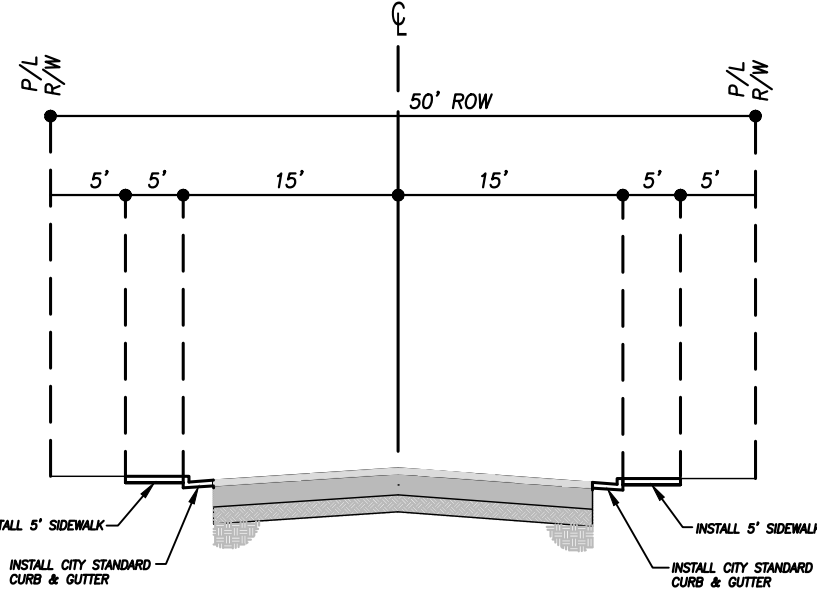
324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215



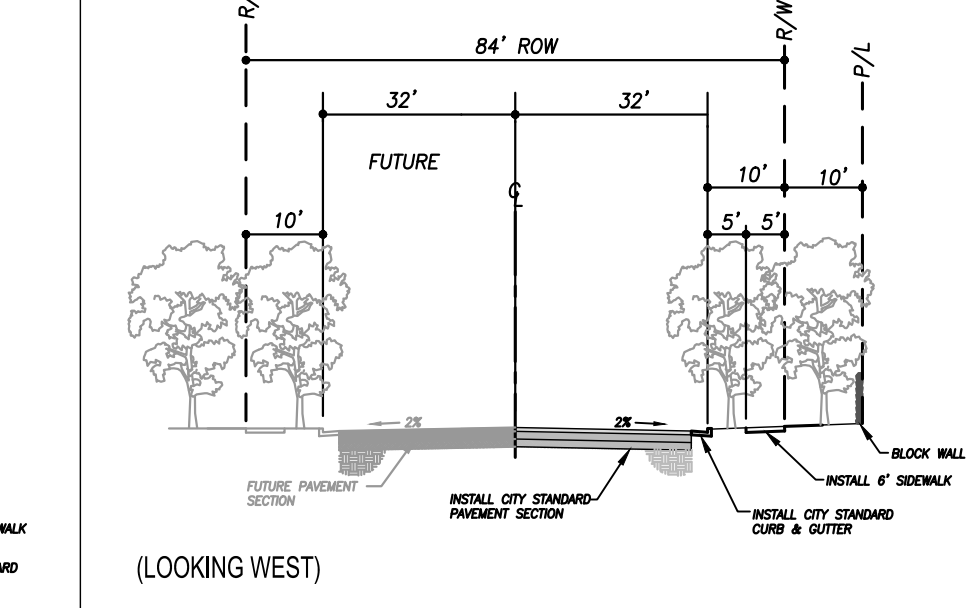
SETBACKS (MINIMUM):
LOTS FRONTING
ON PUBLIC ROW
FRONT YARD: 15' (18' to garage)
SIDE YARD: 5'
REAR YARD: 10'
INTERIOR LOTS
FRONT YARD: 5' (18' to garage)
SIDE YARD: 5'
REAR YARD: 5'



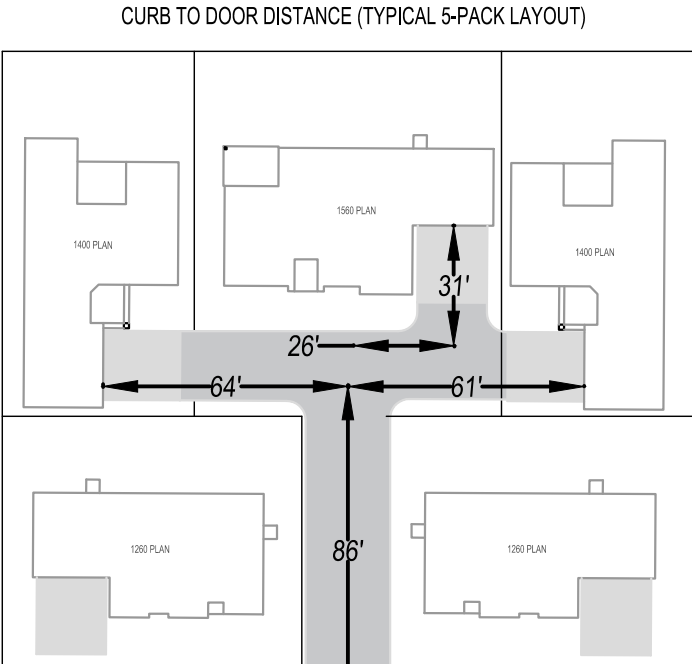
CREEKVIEW ST. LOOKING NORTH
CITY STANDARD: LOCAL RESIDENTIAL



CITY STANDARD: LOCAL RESIDENTIAL



HENDERSON AVENUE
CITY STANDARD P-2: ARTERIAL



DISTANCE FROM CURB TO DOOR LESS THAN OR EQUAL TO 150' FOR ALL LOTS INCLUDED IN PROJECT

RESOLUTION NO. ____-2018

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE
CONTAINING FINDINGS IN SUPPORT OF APPROVAL OF A
MITIGATED NEGATIVE DECLARATION OF ENVIRONMENTAL IMPACT FOR THE
PROPOSED WINDSOR COURT DEVELOPMENT PROJECT (PRC 2017-029)

WHEREAS: The City Council of the City of Porterville at its regularly scheduled meeting of May 15, 2018, conducted a public meeting to consider approval of a Mitigated Negative Declaration which evaluates the environmental impacts of a General Plan Amendment from High Density Residential to Low-Medium Density Residential, Zone Change from RM-3 (High Density Residential) to PD (Planned Development, and a Tentative Subdivision Map for 80 parcels with lots ranging from 4,375 to 9,932 square feet, for the 16.77± acres located on the north side of Henderson Avenue, approximately midway between the Friant Kern Canal and North Westwood Street (APNs 240-050-033 and 034); and

WHEREAS: General Plan Amendment (PRC 2017-029-G) proposes to change the land use designation on the General Plan Land Use Diagram for the subject parcels (APNs 240-050-033 and 034) from High Density Residential to Low-Medium Density Residential; and

WHEREAS: Zone Change (PRC 2017-029-Z) proposes to change the present zoning classification of the subject parcels from RM-3 (High Density Residential) to PD (Planned Development), contingent upon approval of the General Plan Amendment; and

WHEREAS: Tentative Subdivision Map (PRC 2017-029-S) proposes 80 parcels with lots ranging from 4,375 to 9,932 square feet, contingent upon approval of the General Plan Amendment and subsequent Zone Change; and

WHEREAS: Approval of the aforementioned entitlements would further the goals and objectives of the General Plan by providing a compact neighborhood design that provides for efficient use of available land resources and maintains a compact form that is less intrusive, as well as assisting with a mix of housing types to serve the needs of all Porterville residents; and

WHEREAS: On April 12, 2018, the Environmental Coordinator made a preliminary determination that a Mitigated Negative Declaration would be appropriate for the General Plan Amendment, Zone Change, Tentative Subdivision Map and subsequent development of the Windsor Court Development Project in a manner consistent with City codes and plans; and

WHEREAS: The City Council considered the following findings in its review of the environmental circumstances for this project:

1. That a Mitigated Negative Declaration was prepared in accordance with the California Environmental Quality Act.
2. The General Plan Amendment, Zone Change, and development of the Tentative Subdivision Map will not create adverse environmental impacts on biological resources

or adjacent neighborhoods when mitigation measures are implemented and standards of the Development Ordinance and General Plan are applied to the subsequent development project.

3. That the City Council is the decision making body for the project.
4. On April 12, 2018, the Environmental Coordinator made a preliminary determination that a Mitigated Negative Declaration would be appropriate for the proposed project in light of the studies prepared and with implementation of defined mitigation measures related to Biological Resources, Cultural Resources, Greenhouse Gas, and Noise. The Initial Study and proposed Mitigation Measures have been transmitted to the State Clearinghouse (SCH# 2018041042), interested agencies, groups, and individuals for a 30 day review period from April 14, 2018 through May 15, 2018. No comments were received.
5. That review of the environmental circumstances regarding this project indicates that no adverse impacts would occur to biological resources, cultural resources, greenhouse gas and noise when the mitigation measures are implemented and standards of the Development Ordinance and General Plan are applied. Mitigation measures to reduce impacts to less than significant were defined and have been incorporated in the Mitigation Monitoring Program which is attached as an exhibit to the Mitigated Negative Declaration (Exhibit A).
6. That the environmental assessment and analysis prepared for this project supporting the Mitigation Negative Declaration reflects the independent judgement of the City of Porterville.
7. The developer/applicant shall comply with all mitigation measures adopted as a component of the approval of the Mitigated Negative Declaration for this project. The developer/applicant will be required to sign a document committing to comply with the adopted mitigation measures prior to any construction on the site.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Porterville does hereby approve the Mitigated Negative Declaration prepared for the General Plan Amendment, Zone Change, Tentative Subdivision Map, and the subsequent development of the Windsor Court Development Project in a manner consistent with City codes and plans, and that the mitigation measures defined in Exhibit A shall be implemented by the developer/applicant or his/her partners and successors with project implementation.

PASSED, APPROVED AND ADOPTED this 15th day of May, 2018.

By: _____
Brian Ward, Mayor Pro Tem

ATTEST:
John D. Lollis, City Clerk

By: _____
Patrice Hildreth, Chief Deputy City Clerk

MITIGATED NEGATIVE
DECLARATION
Windsor Court Development
Project

March 2018

Exhibit A

PREPARED FOR:



City of Porterville
291 N. Main Street
Porterville, CA 93257

PREPARED BY:



Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

Initial Study/Mitigated Negative Declaration
Windsor Court Development Project

Prepared for:



City of Porterville
291 North Main Street
Porterville, California 93257
(559) 782-7460
Contact: Julie Phillips, AICP

Prepared by:



Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291
(559) 840-4414
Contact: Emily Bowen, LEED AP

March 2018



Project Reference No. 013-1801

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Chapter 1

INTRODUCTION

INTRODUCTION

1.1 Project Summary

This document is the Initial Study/Mitigated Negative Declaration on the potential environmental effects of the City of Porterville's (City) Windsor Court Development (Project). The Project Applicant intends to construct a housing development that includes 80 single-family residences over approximately 17 acres of land. The proposed Project is located on the north side of Henderson Avenue between N. Westwood Street and the Friant-Kern Canal, on APNs 240-050-033 and 240-050-034.

The proposed Project will require a General Plan Amendment and a Zone Change and is more fully described in Chapter Two – Project Description.

The City of Porterville will act as the Lead Agency for this project pursuant to the *California Environmental Quality Act (CEQA)* and the *CEQA Guidelines*.

1.2 Document Format

This IS/MND contains five chapters, and appendices. Section 1, Introduction, provides an overview of the project and the CEQA environmental documentation process. Chapter 2, Project Description, provides a detailed description of project objectives and components. Chapter 3, Initial Study Checklist, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the proposed project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 4, Mitigation Monitoring and Reporting Program, provides the proposed mitigation measures, completion timeline, and person/agency responsible for implementation and Chapter 5, List of Preparers, provides a list of key personnel involved in the preparation of the IS/MND.

Environmental impacts are separated into the following categories:

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

Less Than Significant After Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis.)

Regardless of the type of CEQA document that must be prepared, the basic purpose of the CEQA process as set forth in the CEQA Guidelines Section 15002(a) is to:

- (1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
- (2) Identify ways that environmental damage can be avoided or significantly reduced.
- (3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- (4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

According to Section 15070(b), a Mitigated Negative Declaration is appropriate if it is determined that:

- (1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
- (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

The Initial Study contained in Section Three of this document has determined that with mitigation measures and features incorporated into the project design and operation, the environmental impacts are less than significant and therefore a Mitigated Negative Declaration will be adopted.

Chapter 2

PROJECT DESCRIPTION

Project Description

2.1 Project Background

The Project Applicant is proposing a residential development along West Henderson Avenue between Westwood Street and the Friant Kern Canal. The proposed development consists of 80 residential units on approximately 16.77 acre of land. Requested entitlements include a Tentative Subdivision Map, General Plan Amendment (High Density to Medium Density Residential) and a Zone Change (RM-3 to PD).

2.2 Location

The proposed Project is in the City of Porterville (City), approximately 215 miles southeast of Sacramento and approximately 45 miles north of Bakersfield. The proposed Project is in the western portion of the City and is located on APNs 240-050-033 and 240-050-034. The site is on the north side of Henderson Avenue between N. Westwood St. and the Friant-Kern Canal, and covers approximately 17 acres. The site is approximately two miles north of State Route (SR) 190. See Figures 1 and 2– Regional Map and Vicinity Map, respectively.

2.3 Setting and Surrounding Land Use

The proposed Project site is located in the westernmost part of the City of Porterville and is currently fallowed and being disked for weed control. To the north is the Porter Slough and residential development, to the east is a retirement community and meeting facility, the south is Henderson Avenue and residential development and to the west are rural residences and agriculture.

The site is currently zoned RM-3 (High Density Residential). General Plan Designation, land use and zoning surrounding the site are identified in Table as follows:

Existing Land Use and Zoning

Location	Existing Land Use	Current Zoning Classification	General Plan Designation
North	Single family residences	Low Density Residential (RS-2)	Low Density Residential
South	Single family residences, agriculture and rural residences	Low Density Residential (RS-2), Very Low Density Residential (RS-1)	Low Density Residential
West	Agriculture, rural residences	Medium Density Residential (RM-2)	Neighborhood Commercial, Medium Density Residential
East	Church, retirement home	Neighborhood Commercial (CN)	Neighborhood Commercial

Figure 1
Regional Map

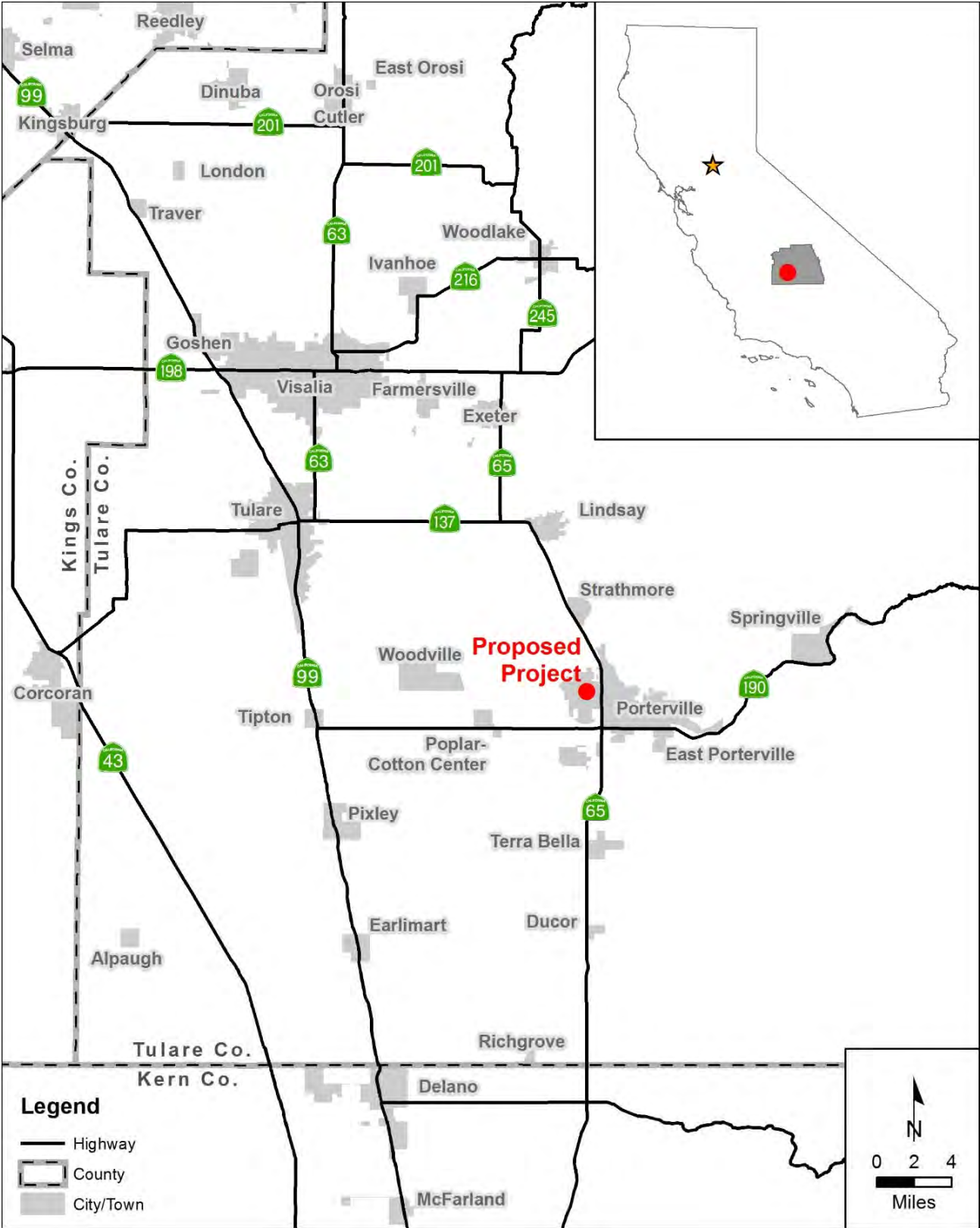


Figure 2
Location Map



Figure 3
Aerial Map



2.4 Project Description

The proposed Project consists of the development of up to 80 single family residential units with lot sizes ranging from 4,375 to 9,932 square feet (see Figure 4 – Site Plan). The Project would be developed on Assessor Parcel Numbers 240-05-033 and -034 and will include the following components:

- Construction of internal access roads with three points of ingress/egress along Henderson Avenue.
- Installation of an ADA accessible pedestrian bridge crossing the Porter Slough that will connect the proposed development with Elderwood Street to the north to accommodate walkability to the school campuses.
- Improve all streets, highways, or ways in or adjacent to the subdivision, in accordance with the approved improvements plan, in accordance with Section 407.02(h) of the Porterville Development Ordinance.
- Development of a subdivision tree and landscaping design that will be approved by the City. At least one tree will be planted on each residential lot and street trees will be planted at 35 feet on center along all parkways within and/or bordering the subdivision.
- Development of a Landscape plan, in accordance with Chapter 303 of the Porterville Development Ordinance.

The site is currently zoned RM-3 with a corresponding General Plan land use (GPLU) designation of High Density Residential. As part of the Project, the site would be rezoned as a Planned Development (PD) with a corresponding GPLU of low-medium density residential. The Planned Development Zone District will provide a mechanism to accommodate the unusual configuration of parcels, as seen in Figure 4 – Site Plan. Land locked parcels are not consistent with the Municipal Code; however, the PD Plan will include provisions that ensure shared ingress and egress, as well as shared maintenance, and restrictions associated with parking along the driveways. As the majority of parcels do not meet the minimum lot size or dimension, the PD Plan can include conditional elements to allow for reduced lot dimensions, subject to the required findings identified in Section 201.04(c)(4) of Chapter 21 of the Porterville Municipal Code.

The Project will be constructed in one phase beginning in June of 2018. Construction is anticipated to last approximately one year. Existing City services (water, sewer and stormwater) are located along Henderson Avenue and the applicant will be required to tie into these existing facilities. The proposed Project would require gas, telephone, cable, and electrical improvements. Natural Gas would be provided by The Gas Company; telephone services would be provided by

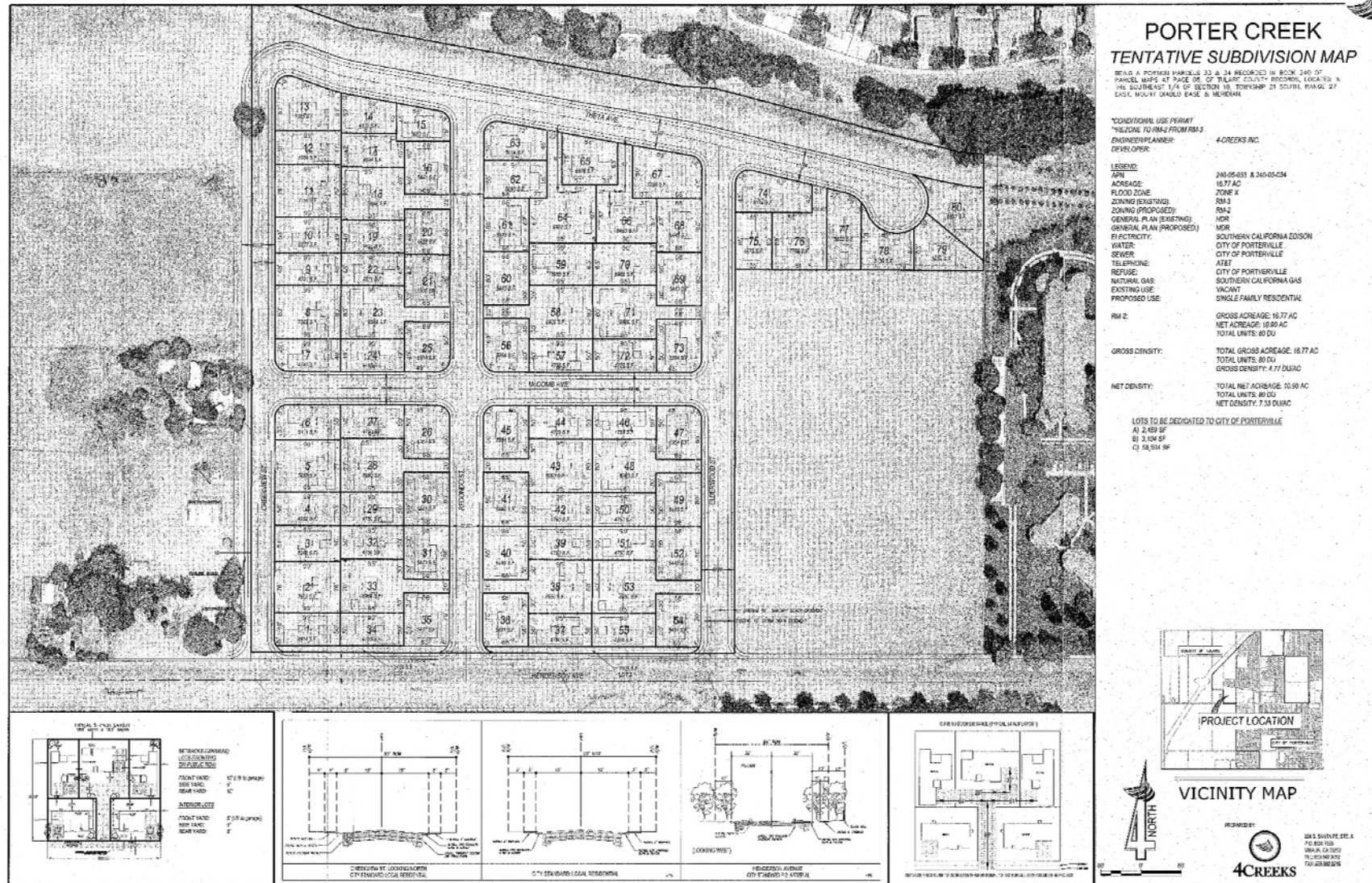
AT&T; electric power would be provided by Southern California Edison Company; and cable television would be provided by Charter Communication. The extent of work required for utilities and gas would be determined during final project design.

2.5 Other Required Approvals

The proposed Project would include, but not be limited to, the following regulatory requirements:

- The adoption of a Mitigated Negative Declaration by the City of Porterville
- Approval of a General Plan Amendment by the City of Porterville
- Approval of a Zone Change by the City of Porterville
- Approval of a Subdivision Map by the City of Porterville
- Approval of Building Permits by the City of Porterville
- Approval of an encroachment permit by the Central Valley Flood Protection Board
- Approval of a Stormwater Pollution Prevention Plan by the Central Valley Regional Water Quality Control Board
- Dust Control Plan Approval letter from the San Joaquin Valley Air Pollution Control District
- Compliance with Rule 9510 – Indirect Source Review, from the San Joaquin Valley Air Pollution Control District
- Compliance with other federal, state and local requirements.

Figure 4
Site Plan



Chapter 3

IMPACT ANALYSIS

Initial Study Checklist

3.1 Environmental Checklist Form

Project title:

City of Porterville Windsor Court Development Project

Lead agency name and address:

City of Porterville
291 North Main Street
Porterville, CA 93257

Contact person and phone number:

Julie Phillips, AICP, Community Dev. Manager
City of Porterville
(559) 782-7460

Project location:

The proposed Project is located on the north side of Henderson Avenue between N. Westwood Street and the Friant-Kern Canal, on APNs 240-050-033 and 240-050-034. It is adjacent to the western City limit and is two miles north of State Route 190.

Project sponsor's name/address:

Matt Ainley, PE
4Creeks, Inc.
324 S. Santa Fe Street, Suite A
Visalia, CA 93292

General plan designation:

High Density Residential

Zoning:

RM-3 (High Density Residential)

Description of project:

See Section Two – Project Description.

Surrounding land uses/setting:

See Section Two – Project Description.

Other public agencies whose approval or consultation is required (e.g., permits, financing approval, participation agreements):

- State of California Native American Heritage Commission
- San Joaquin Valley Air Pollution Control District
- Central Valley Regional Water Quality Control Board

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

The City of Porterville has not received any project-specific requests from any Tribes in the geographic area with which it is traditionally and culturally affiliated with or otherwise to be notified about projects in the City of Porterville.

3.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities/Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

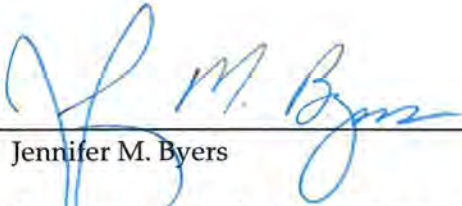
3.3 Determination

On the basis of this initial evaluation:

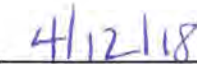
- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an

ENVIRONMENTAL IMPACT REPORT is required.

- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Jennifer M. Byers
Community Development Director
City of Porterville



Date

I. AESTHETICS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Environmental Setting

The proposed Project site is located on the San Joaquin Valley floor in the west portion of the City of Porterville, California. The proposed Project site is bounded by Porter Slough and W. Porter Creek Avenue on the north, Sierra Hills Retirement Community and a meeting facility to the east, W. Henderson Avenue to the south and active agriculture with rural residences to the west. Residential development is on the parcels to the north and south of the proposed Project site. The aesthetic features of the existing visual environment in the proposed Project area are relatively uniform (single family residential, and neighborhood service and agriculture). There are no scenic resources or scenic vistas in the area. State Routes (SR) in the proposed Project vicinity include 99, 65, 190, 137.

Regulatory Setting

Federal

Aesthetic resources are protected by several federal regulations, none of which are relevant to the proposed Project because it will not be located on lands administered by a federal agency, and the proposed Project applicant is not requesting federal funding or a federal permit.

State

Nighttime Sky – Title 24 Outdoor Lighting Standards

The Energy Commission adopted changes to Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards), on April 23, 2008. These new Standards became effective on January 1, 2010. Requirements for outdoor lighting remained consistent with past Standards and the requirements vary according to which “Lighting Zone” the equipment is in. The Standards contain lighting power allowances for newly installed equipment and specific alterations that are dependent on which Lighting Zone the Project is located in. Existing outdoor lighting systems are not required to meet these lighting power allowances. However, alterations that increase the connected load, or replace more than 50% of the existing luminaires, for each outdoor lighting application that is regulated by the Standards, must meet the lighting power allowances for newly installed equipment.

An important part of the Standards is to base the lighting power that is allowed on how bright the surrounding conditions are. The eyes adapt to darker surrounding conditions, and less light is needed to properly see; when the surrounding conditions get brighter, more light is needed to see. The least power is allowed in Lighting Zone 1 and increasingly more power is allowed in Lighting Zones 2, 3, and 4.

The Energy Commission defines the boundaries of Lighting Zones based on U.S. Census Bureau boundaries for urban and rural areas as well as the legal boundaries of wilderness and park areas. By default, government designated parks, recreation areas and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government.

California Scenic Highway Program

The Scenic Highway Program allows county and city governments to apply to the California Department of Transportation (Caltrans) to establish a scenic corridor protection program which was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260

through 263. While not Designated State Scenic Highways, two Eligible State Scenic Highways occur in Tulare County, SR 198 and SR 190.

Local

Porterville General Plan Policies

- LU-I-14: Allow residential developments to employ creative site design, landscaping, and architectural quality that blend with the characteristics of each location and its surroundings and offer superior design solutions.
- LU-I-18: Protect existing residential neighborhoods from the encroachment of incompatible activities and land uses, and environmental hazards.
- L-I-20: Establish standards for pedestrian-oriented design in neighborhood centers. Pedestrian orientation design standards may include, but would not be limited to:

Limitations on maximum block length

Minimum sidewalk width

Required streetscape improvements, including street trees

Building height and articulation

Building setbacks

Location of entries

Parking location and required landscaping

- LU-I-25: Establish buffering requirements and performance standards intended to minimize harmful effects of excessive noise, light, glare, and other adverse environmental impacts.

RESPONSES

a. Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The proposed Project includes the construction of 80 single family residences and the improvements associated with a new residential development, including lighting and site landscaping. The structures will be single story in height and will conform to design standards set forth by the City's General Plan and Zoning Ordinance. The proposed Project site is located in an area that is substantially surrounded by urban uses and will not result in a use that is visually incompatible with the surrounding area.

The City of Porterville General Plan does not identify any scenic vistas within the proposed Project area. A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. The Project is located in an area of minimal topographic relief, and views of the site are easily obscured by buildings, other structures and trees. Neither the Project area nor any surrounding land use contains features typically associated with scenic vistas (e.g., ridgelines, peaks, overlooks).

Construction activities will be visible from the adjacent roadsides; however, the construction activities will be temporary in nature and will not affect a scenic vista. The impact will be *less than significant*.

Mitigation Measures: None are required.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact. There are no state designated scenic highways within the immediate proximity to the Project site. California Department of Transportation Scenic Highway Mapping System identifies SR 190 east of SR 65 as an Eligible State Scenic Highway. This is the closest highway, located approximately two miles south of the Project site; however, the Project site is both physically and visually separated from SR 190 by intervening land uses. In addition, no scenic highways or roadways are listed within the Project area in the City of Porterville's General Plan or Tulare County's General Plan. Based on the National Register of Historic Places (NRHP) and the City's General Plan, no historic buildings exist on the Project site. Established trees on the northwest portion of the proposed Project site would be removed as part of demolition, but new trees would be planted as part of the Projects landscaping plan. The proposed Project would not cause damage to rock outcroppings or historic buildings within a State scenic highway corridor. Any impacts would be considered *less than significant*.

Mitigation Measures: None are required.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact. Site construction will include residences, internal access roads, lighting and site landscaping. The residences will be single family and will conform to design standards set forth by the City's General Plan and Zoning Ordinance. The proposed Project site is located in an area that is substantially surrounded by urban uses, including residential and agricultural, and as such, will not

result in a use that is visually incompatible with the surrounding area. The proposed Project will not substantially degrade the existing visual character or quality of the area or its surroundings.

The impact will be *less than significant*.

Mitigation Measures: None are required.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as “light trespass.” Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Spillover light is light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it travels from the source, the intensity of a light fixture is often increased at the source to compensate for the dissipated light. This can further increase the amount of light that illuminates adjacent uses. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Currently the sources of light in the Project area are from street lights, the vehicles traveling along Henderson Avenue, and security lighting at the neighboring meeting facility and retirement home. The Project would street lighting. Such lighting would be subject to the requirements of the Porterville

Development Ordinance 300.07, which ensures that outdoor lighting does not produce obtrusive glare onto the public right-of-way or adjoining properties. Accordingly, the Project would not create substantial new sources of light or glare. Potential impacts are *less than significant*.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Environmental Setting

The proposed Project site is located in an area of the City considered urban, built up land by the State Farmland Mapping and Monitoring Program, and considered Developed Land in 2030 by the City of Porterville.¹ No *Prime Farmland, Unique Farmland, or Farmland of Statewide Importance* or land under the Williamson Act contracts occurs in the Project area.

Regulatory Setting

Federal

Federal regulations for agriculture and forest resources are not relevant to the proposed Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or a federal permit).

State

State regulations for agriculture and forest resources are not relevant to the proposed Project because no agricultural resources exist on the site.

Local

Porterville General Plan Policies

Porterville General Plan Policies for agriculture and forest resources are not relevant to the proposed Project because no agricultural resources exist on the site and no agricultural or forest resources will be impacted by the Project.

RESPONSES

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project site is located in an area of the City considered urban, built up land by the State Farmland Mapping and Monitoring Program. No *Prime Farmland, Unique Farmland, or Farmland of*

¹ City of Porterville General Plan. Figure 6-2.

Statewide Importance or land under the Williamson Act contracts occurs in the Project area. Therefore, no land conversion from Farmland would occur for the Project. Surrounding land uses include residential, commercial, and agricultural uses, as the proposed Project is on the western edge of the City. The proposed site is planned for development and as such, the proposed Project does not have the potential to result in the conversion of Farmland to non-agricultural uses or forestland uses to non-forestland. There is *no impact*.

Mitigation Measures: None are required.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is not zoned for agriculture nor is the site covered by a Williamson Act contract; no impacts would occur. The Project is not zoned for forestland and does not propose any zone changes related to forest or timberland. There is *no impact*.

Mitigation Measures: None are required.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The Project is not zoned for forestland and does not propose any zone changes related to forest or timberland. There is *no impact*.

Mitigation Measures: None are required.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, would occur as a result of the Project. There is *no impact*.

Mitigation Measures: None are required.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. No land conversion from Farmland would occur for the Project. Surrounding land uses include residential, commercial, and agricultural uses. The proposed Project site is planned for residential development and as such, does not have the potential to result in the conversion of Farmland to non-agricultural uses or forestland uses to non-forestland. There is *no impact*.

Mitigation Measures: None are required.

III. AIR QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Environmental Setting

The climate of the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy, winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants and are in part influenced by the surrounding mountains which intercept precipitation and act as a barrier to the passage of cold air and air pollutants.

The proposed Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide

(NO₂), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents within that air basin. Areas are classified under the Federal Clean Air Act as either “attainment”, “non-attainment”, or “extreme non-attainment” areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal extreme non-attainment area for O₃, a State and Federal non-attainment area for PM_{2.5}, a State non-attainment area for PM₁₀, and Federal and State attainment area for CO, SO₂, NO₂, and Pb.²

Regulatory Setting

Federal

Clean Air Act

The federal Clean Air Act of 1970 (as amended in 1990) required the U.S. Environmental Protection Agency (EPA) to develop standards for pollutants considered harmful to public health or the environment. Two types of National Ambient Air Quality Standards (NAAQS) were established. Primary standards protect public health, while secondary standards protect public welfare, by including protection against decreased visibility, and damage to animals, crops, landscaping and vegetation, or buildings. NAAQS have been established for six “criteria” pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb).

State

California Air Resources Board

The California Air Resources Board (CARB) is the state agency responsible for implementing the federal and state Clean Air Acts. CARB has established California Ambient Air Quality Standards (CAAQS), which include all criteria pollutants established by the NAAQS, but with additional regulations for Visibility Reducing Particles, sulfates, hydrogen Sulfide (H₂S), and vinyl chloride.

² San Joaquin Valley Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>. Accessed February 2018.

The proposed Project is located within the San Joaquin Valley Air Basin, which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and parts of Kern counties and is managed by the SJVAPCD.

Air basins are classified as attainment, nonattainment, or unclassified. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an unclassified designation indicates insufficient data is available to determine compliance for that pollutant.

Standards and attainment status for listed pollutants in the Air District can be found in Table 1. Note that both state and federal standards are presented.

Table 1
Standards and Attainment Status for Listed Pollutants in the Air District³

	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1-hr avg)
Lead	1.5 µg/m ³ (calendar quarter) 0.15 µg/m ³ (rolling 3-month avg)	1.5 µg/m ³ (30-day avg)
Particulate Matter (PM ₁₀)	150 µg/m ³ (24-hr avg)	20 µg/m ³ (annual avg) 50 µg/m ³ (24-hr avg)
Particulate Matter (PM _{2.5})	15 µg/m ³ (annual avg)	35 µg/m ³ (24-hr avg) 12 µg/m ³ (annual avg)

µg/m³ = micrograms per cubic meter

Additional State regulations include:

CARB Portable Equipment Registration Program – This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their

³ San Joaquin Valley Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. <http://www.valleyair.org/aqinfo/attainment.htm>. Accessed February 2018.

equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program – The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off-road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act – Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which will be phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the local agency charged with preparing, adopting, and implementing mobile, stationary, and area air emission control measures and standards. The SJVAPCD has several rules and regulations that may apply to the Project:

Rule 3135 (Dust Control Plan Fees) – This rule requires the project applicant to submit a fee in addition to a Dust Control Plan. The purpose of this rule is to recover the SJVAPCD's cost for reviewing these plans and conducting compliance inspections.

Rules 4101 (Visible Emissions) and 4102 (Nuisance) – These rules apply to any source of air contaminants and prohibits the visible emissions of air contaminants or any activity which creates a public nuisance.

Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations) – This rule applies to use of asphalt for paving new roadways or restoring existing roadways disturbed by project activities.

Regulation VIII (Fugitive PM₁₀ Prohibitions) – This regulation, a series of eight regulations, is designed to reduce PM₁₀ emissions by reducing fugitive dust. Regulation VIII requires implementation of control

measures to ensure that visible dust emissions are substantially reduced. The control measures are summarized in Table 2.

Table 2
San Joaquin Valley Air Pollution Control District
Regulation VIII Control Measures for Construction Related Emissions of PM₁₀⁴

The following are required to be implemented at all construction sites:
All disturbed areas, including storage piles, which are not actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizers/suppressants, covered with a tarp or other similar cover, or vegetative
All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions during construction using water or chemical stabilizer
All land clearing, grubbing, scraping, excavation, land leveling, grading cut and fill, and demolition activities during construction shall be effectively controlled of fugitive dust emissions utilizing application of water or pre-soaking.
When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from top of container shall be maintained.
All operations shall limit, or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of
Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site at the end of each workday.
Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

Porterville General Plan Policies

- OSC-G-9: Improve and protect Porterville’s air quality by making air quality a priority in land use and transportation planning and in development review.
- OSC-I-59: Require preparation of a Health Risk Assessment for any development subject to the Air Toxics “Hot Spots” Act.
- OSC-I-61: Coordinate air quality planning efforts with other local, regional and State agencies.

⁴ San Joaquin Valley Air Pollution Control District. Current District Rules and Regulations. <http://www.valleyair.org/rules/1ruleslist.htm#reg8>. Accessed February 2018.

- OSC-I-63: Notify local and regional jurisdictions of proposed projects that may affect regional air quality.
- OSC-G-10: Reduce and conserve energy use in existing and new commercial, industrial, and public structures.

RESPONSES

a. Conflict with or obstruct implementation of the applicable air quality plan?#

Less than Significant Impact. The San Joaquin Valley Air Basin (SJVAB) is designated nonattainment of state and federal health based air quality standards for ozone and PM_{2.5}. The SJVAB is designated nonattainment of state PM₁₀. To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM₁₀ Maintenance Plan and Request for Redesignation; and
- 2008 PM_{2.5} Plan.

Because of the region's non-attainment status for ozone, PM_{2.5}, and PM₁₀, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NO_x), PM₁₀, or PM_{2.5} were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

As discussed in Impact c), below, predicted construction and operational emissions would not exceed the SJVAPCD's significance thresholds for ROG, NO_x, PM₁₀, and PM_{2.5}. As a result, the Project uses would not conflict with emissions inventories contained in regional air quality attainment plans, and would not result in a significant contribution to the region's air quality non-attainment status. Additionally, the Project would comply with all applicable rules and regulations. Therefore, this impact is *less than significant*.

Mitigation Measures: None are required.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact. Because ozone is a regional pollutant⁵, the pollutants of concern for localized impacts are CO and fugitive PM₁₀ dust from construction. Ozone and PM₁₀ exhaust impacts are addressed under Impact c), below. The proposed Project would not result in localized CO hotspots or PM₁₀ impacts, as discussed below. Therefore, the proposed Project would not violate an air quality standard or contribute to a violation of an air quality standard in the Project area.

Localized PM₁₀

Localized PM₁₀ would be generated by proposed Project construction activities, which would include earth-disturbing activities. The SJVAPCD indicates that all control measures in Regulation VIII are required for all construction sites by regulation. The SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) lists additional measures that may be required of very large projects or projects close to sensitive receptors.⁶ If all appropriate "enhanced control measures" in the GAMAQI are not implemented for very large projects or those close to sensitive receptors, then construction impacts would be considered significant (unless the Lead Agency provides a satisfactory detailed explanation as to why a specific measure is unnecessary). The GAMAQI also lists additional control measures (Optional Measures) that may be implemented if further emission reductions are deemed necessary by the Lead Agency. The SJVAPCD's Regulation VIII (Fugitive PM₁₀ Prohibitions) has been updated and expanded since the GAMAQI guidance was written in 2002. Regulation VIII now includes the "enhanced control measures" contained in the GAMAQI.

The proposed Project would comply with the SJVAPCD's Regulation VIII dust control requirements during any proposed construction (including Rules 8011, 8031, 8041, and 8071). Compliance with this regulation would reduce the potential for significant localized PM₁₀ impacts to *less than significant* levels.

CO Hotspot

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of roadways in the Project vicinity.

⁵ San Joaquin Valley Air Pollution Control District. Air Quality Plans. Ozone Plans, 8-hour ozone standard. https://www.valleyair.org/Air_Quality_Plans/Ozone_Plans.htm. Accessed January, 2018.

⁶ San Joaquin Valley Air Pollution Control District. Guidance for Assessing and Mitigating Air Quality Impacts. March 19, 2015. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Accessed February 2018.

As further discussed in the Transportation/Traffic checklist evaluation, the Project would not generate, or substantially contribute to, additional traffic that would reduce the level of surface on local roadways. Therefore, the Project would not significantly contribute to an exceedance that would exceed state or federal CO standards. Impacts are considered *less than significant*.

Mitigation Measures: None are required.

- c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. The nonattainment pollutants for the SJVAPCD are ozone, PM₁₀ and PM_{2.5}. Therefore, the pollutants of concern for this impact are ozone precursors, regional PM₁₀, and PM_{2.5}. Ozone is a regional pollutant formed by chemical reaction in the atmosphere, and the Project's incremental increase in ozone precursor generation is used to determine the potential air quality impacts, as set forth in the GAMAQI.

The annual significance thresholds to be used for the Project for construction and operational emissions are as follows⁷:

- 100 tons per year CO;
- 10 tons per year NO_x;
- 10 tons per year ROG;
- 27 tons per year SO_x;
- 15 tons per year PM₁₀; and
- 15 tons per year PM_{2.5}.

The estimated annual operational emissions are shown below. The California Emissions Estimator (CalEEMod), Version 2016.3.2, was used to estimate construction and operational (vehicle trips) emissions resulting from the development of 80 single-family residential units. The modeling results are provided in Table 3 and the CalEEMod output files are provided in Appendix A.

⁷ San Joaquin Valley Air Pollution Control District. March 19, 2015. Guide for Assessing and Mitigating Air Quality Impacts. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Page 80. Accessed February, 2018.

Table 3
Proposed Project Construction and Operation Emissions

		CO (tons/year)	NOx (tons/year)	ROG (tons/year)	SOx (tons/year)	PM10 (tons/year)	PM2.5 (tons/year)	CO2 (tons/year)
2018	Construction	1.72	2.85	0.27	0.00	0.53	0.31	272.66
	Exceed SJVAPCD Threshold?	No	No	No	No	No	No	No
2019	Construction	2.40	2.92	0.33	0.00	0.21	0.17	366.83
	Exceed SJVAPCD Threshold?	No	No	No	No	No	No	No
2020	Construction	1.58	1.73	1.54	0.00	0.12	0.10	240.02
	Exceed SJVAPCD Threshold?	No	No	No	No	No	No	No
2021+	Annual Operations	4.25	3.65	1.08	0.02	0.87	0.26	1,515.20
	Exceed SJVAPCD Threshold?	No	No	No	No	No	No	No
Annual SJVAPCD Threshold		100	10	10	27	15	15	--

Any impacts would be considered *less than significant*.

Mitigation Measures: None are required.

d. Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. The proposed Project would not expose sensitive receptors to substantial concentrations of localized PM₁₀, carbon monoxide, diesel particulate matter, or hazardous pollutants, naturally occurring asbestos, or valley fever, as discussed below.

Localized PM₁₀

As shown in Response III-b, above, the Project would not generate a significant impact for construction-generated, localized PM₁₀. Therefore, the Project would not expose sensitive receptors to unhealthy levels of PM₁₀.

PM Hotspot

A PM_{2.5} and PM₁₀ Hotspot Analysis is not required for the Project because it is not a Project of Air Quality Concern (POAQC).

Carbon Monoxide Hotspot

As shown in Impact b), above, the Project would not generate a CO hotspot. In addition, the existing background concentrations of CO are low and any CO emissions would disperse rapidly. The nearest SJVAPCD monitoring station located approximately 45 miles south of the Project site (Bakersfield-Golden State Highway) shows the highest 1-hour and 8-hour CO concentrations for the past three years as 2.08 ppm and 1.46 ppm, respectively. The 1-hour and 8-hour CO standard are 20 ppm and 9 ppm, respectively. Therefore, the Project would not expose sensitive receptors to unhealthy levels of CO.

Naturally Occurring Asbestos

The Department of Conservation, Division of Mines and Geology published a guide entitled A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, for generally identifying areas that are likely to contain naturally occurring asbestos. The guide includes a map of areas where formations containing naturally occurring asbestos in California are likely to occur. Foothill areas within Tulare County are identified as areas with ultramafic rocks. The City of Porterville's General Plan, Chapter Seven: Public Health and Safety provides a more detailed map, Figure 7-2 that shows some foothill locations adjacent to the City as areas with ultramafic rocks. Those areas are not located near the Project site. For this reason, the Project is not anticipated to expose workers or nearby receptors to naturally occurring asbestos. Any impacts to this analysis area would be considered *less than significant*.

e. Create objectionable odors affecting a substantial number of people?

Less than Significant Impact. If the proposed Project were to result in a sensitive odor receptor being located in the vicinity of an undesirable odor generator, the impact would be considered significant. The SJVAPCD regulates odor sources through its nuisance rule, Rule 4102, but has no quantitative standards for odors. The SJVAPCD presents a list of project screening trigger levels for potential odor sources in its GAMAQI, which is displayed in Table 4. If the project were to result in sensitive receptors being located closer to an odor generator in the list in Table 4 than the recommended distances, a more detailed analysis including a review of SJVAPCD odor complaint records is recommended.

Table 4
Screening Levels for Potential
Odor Sources⁸

Odor Generator	Distance (Miles)
Wastewater Treatment Facilities	2
Sanitary Landfill	1
Transfer Station	1
Composting Facility	1
Petroleum Refinery	2
Asphalt Batch Plant	1
Chemical Manufacturing	1
Fiberglass Manufacturing	1
Painting/Coating Operations (e.g., auto body shop)	1
Food Processing Facility	1
Feed Lot/Dairy	1
Rendering Plant	1

Significant odor problems are defined as:

- More than one confirmed complaint per year averaged over a three year period; or
- Three unconfirmed complaints per year averaged over a three-year period.

The proposed Project would allow for the residential development within the Project area. These land uses are not considered sources of objectionable odors. Therefore, objectionable odors are not expected to be a significant concern during either proposed Project construction related or operational emissions. As such, any impacts would be considered *less than significant*.

Mitigation Measures: None are required.

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⁸ San Joaquin Valley Air Pollution Control District. Current District Rules and Regulations. <http://www.valleyair.org/rules/1ruleslist.htm#reg8>. Accessed February 2018.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ☐ ☐ ☒ ☐
- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ☐ ☐ ☒ ☐

SETTING

Environmental Setting

The proposed Project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Current agricultural endeavors in the region include dairies, groves, and row crops.

Like most of California, the Central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures usually exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely raise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the proposed Project site is about 10 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain and storm-water readily infiltrates the soils of the surrounding the sites.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.

The site currently consists of fallowed land routinely disked for weed control. The Porter Slough, a natural channel for Stormwater runoff, runs north of the Project site. Surrounding lands consist of streets, neighborhood commercial, residential development and agriculture.

No aquatic or wetland features occur on the proposed Project site; therefore, jurisdictional waters are considered absent from the site.

Regulatory Setting

Federal

Endangered Species Act

The Federal Endangered Species Act (FESA) protects plants and wildlife that are listed as endangered or threatened by the USFWS and National Oceanic and Atmospheric Administration (NOAA) Fisheries. Section 9 of the FESA prohibits the taking of listed wildlife, where taking is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging-up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16USC1538). Pursuant to Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed plant or wildlife species or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity, provided the action will not jeopardize the continued existence of the species. Section 10 of the FESA provides for issuance of incidental take permits to private parties, provided a Habitat Conservation Plan (HCP) is developed.

Migratory Bird Treaty Act

The MBTA implements international treaties devised to protect migratory birds and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits are in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the CDFG Code.

Federal Clean Water Act

The federal Clean Water Act’s (CWA’s) purpose is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States without a permit from the U.S. Army Corps of Engineers (ACOE). The definition of waters of the United States includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated

by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3 7b).” The USEPA also has authority over wetlands and may override an ACOE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or Waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the RWQCB.

State

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA, but unlike its federal counterpart, the CESA applies the take prohibitions to species proposed for listing (called candidates by the state). Section 2080 of the CDFG Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the CDFG Code as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the CDFG to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered, threatened, or candidate species or result in destruction or adverse modification of essential habitat. The CDFG administers the act and authorizes take through Section 2081 agreements (except for designated fully protected species).

Fully Protected Species

The State of California first began to designate species as fully protected prior to the creation of the CESA and FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians, reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered pursuant to the CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (CDFG Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, the CDFG prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

Native Plant Protection Act

Regarding listed rare and endangered plant species, the CESA defers to the California Native Plant Protection Act (NPPA) of 1977 (CDFG Code Sections 1900 to 1913), which prohibits importing of rare

and endangered plants into California, and the taking and selling of rare and endangered plants. The CESA includes an additional listing category for threatened plants that are not protected pursuant to NPPA. In this case, plants listed as rare or endangered pursuant to the NPPA are not protected pursuant to CESA, but can be protected pursuant to the CEQA. In addition, plants that are not state listed, but that meet the standards for listing, are also protected pursuant to CEQA (Guidelines, Section 15380). In practice, this is generally interpreted to mean that all species on lists 1B and 2 of the CNPS Inventory potentially qualify for protection pursuant to CEQA, and some species on lists 3 and 4 of the CNPS Inventory may qualify for protection pursuant to CEQA. List 3 includes plants for which more information is needed on taxonomy or distribution. Some of these are rare and endangered enough to qualify for protection pursuant to CEQA. List 4 includes plants of limited distribution that may qualify for protection if their abundance and distribution characteristics are found to meet the standards for listing.

California Lake and Streambed Alteration Agreement

Sections 1600 through 1616 of the CDFG Code require that a Lake and Streambed Alteration Program Notification Package be submitted to the CDFG for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFG reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal on which the CDFG and the applicant agree is the Lake and Streambed Alteration Agreement. Often, projects that require a Lake and Streambed Alteration Agreement also require a permit from the ACOE pursuant to Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the Lake and Streambed Alteration Agreement may overlap.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

Porterville General Plan Policies

- OSC-G-7: Protect habitat for special status species, designated under State and federal law.

RESPONSES

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation. A desktop review of literature resources was conducted to determine if the Project area is located within the range of sensitive biological resources such as state and/or federally-listed threatened and/or endangered species. A list of special-status species that could potentially occur in the Project area and a 9-quadrant search of the Project area was compiled (see Appendix B) by accessing the California Natural Diversity Database (CNDDDB) for the USGS 7.5-minute quadrangle of Porterville in which the Project area is located as well as the eight surrounding quads of Fountain Springs, Ducor, Sausalito School, Frazier Valley, Success Dam, Lindsay, Cairn's Corner, and Woodville. A total of 18 special-status animals were identified as potentially occurring in the proposed Project vicinity (see Appendix B). Seven of the 18 special status animal species listed in Appendix B could potentially occur within the proposed Project area; these species are the Swainson's hawk (*Buteo swainsoni*), San Joaquin kit fox (*Vulpes macrotis mutica*), and tricolored blackbird (*Agelaius tricolor*).

Swainson's hawk

Swainson's hawk is not expected to nest within or adjacent to the proposed Project area; therefore, the Project does not have the potential to result in injury or mortality of nesting Swainson's hawks, or disturbance leading to nest abandonment. In the unlikely event that Swainson's hawks are foraging within the Project area at the time of construction, individual hawks may be disturbed, possibly to the point of shifting their use to habitats outside of the Project area. Swainson's hawks would not be vulnerable to construction-related injury or mortality while foraging because they are highly mobile and would be expected to simply fly away from construction-related disturbance. Given the highly disturbed nature of the proposed Project site and the relatively low probability of Swainson's hawk occurrence within the Project area, Swainson's hawk individuals and populations would not be significantly impacted from Project related loss of foraging habitat.

San Joaquin Kit Fox

The potential for SJKF occurrence in the proposed Project area is considered to be quite low. In the highly unlikely event that kit foxes take up residence on the proposed Project area prior to construction or pass through the Project area during construction, individuals of this species may be vulnerable to construction-related injury or mortality. As such, implementation of **BIO-1** through **BIO-5** will ensure that any impacts remain less than significant.

Tricolored Blackbird

In the event that tricolored blackbirds are nesting within or adjacent to the proposed Project area at the time of construction, individuals of this species may be vulnerable to construction-related injury or mortality, or to construction-related disturbance leading to nest abandonment. Tricolored blackbirds

would not be vulnerable to construction-related injury or mortality while foraging because they are highly mobile foragers and would be expected to simply fly away from construction-related disturbance. Implementation of **BIO-6**, **BIO-7** and **BIO-8** will ensure that any impacts to Tricolored Blackbird, remain less than significant.

Nesting Birds

In the event that avian species are nesting within or adjacent to the proposed Project area at the time of construction, construction activities could result in nest abandonment and/or direct mortality to individual birds. Project activities that injure or kill native birds or lead to nest abandonment would violate the California Fish and Game Code. As such, implementation of **BIO-9**, **BIO-10** and **BIO-11** will ensure that potential impacts would remain less than significant.

As such, impacts to sensitive species will be *less than significant*.

Mitigation Measures:

- BIO-1:** ***Pre-construction Surveys.*** Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any Project activity likely to impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS 2011 *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (see Appendix G). The primary objective is to identify kit fox habitat features (e.g. potential dens and refugia) within the BSA and evaluate their use by kit foxes through use of remote monitoring techniques such as motion-triggered cameras and tracking medium. If an active kit fox den is detected within or immediately adjacent to the area of work, the USFWS and CDFW shall be contacted immediately.
- BIO-2:** ***Avoidance.*** Should an active kit fox den be detected within or immediately adjacent to the area of work, a disturbance-free buffer will be established around the den in consultation with the USFWS and CDFW, to be maintained until a qualified biologist has determined that the den is no longer occupied. Known kit fox dens may not be destroyed until they have been vacant for a period of at least three days, as demonstrated by use of motion-triggered cameras or tracking medium, and then only after obtaining take authorization from the USFWS.

- BIO-3:** *Minimization.* Construction activities shall be carried out in a manner that minimizes disturbance to kit foxes. Minimization measures include, but are not limited to: restriction of Project-related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g., pipes), as well as installation of escape structures, to prevent the inadvertent entrapment of kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash.
- BIO-4:** *Employee Education Program.* Prior to the start of construction, the City will retain a qualified biologist to conduct a tailgate meeting that will include a hand out with all of the training information included in it or conduct a Power Point presentation prepared by a qualified biologist to train all construction staff that will be involved with the Project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the Project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of the measures being taken to reduce impacts to the species during Project construction and implementation. The Project manager will use prepared training material to train any additional construction staff that were not in attendance at the first meeting, prior to starting work on the Project.
- BIO-5:** *Mortality Reporting.* In case of the accidental death or injury of a San Joaquin kit fox during Project-related activities, the City will contact Caltrans and Caltrans will notify The Sacramento Field Office of the USFWS. The City will notify the CDFW, directly. All notifications will be submitted in writing within three working days of incident. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.
- BIO-6:** *Avoidance.* If feasible, Project construction will occur outside of the avian nesting season, typically defined as February 1st through August 31st. If construction takes place entirely outside of the nesting season, impacts to nesting tricolored blackbirds will be absent and no other action is necessary.
- BIO-7:** *Pre-construction Surveys.* If Project construction must occur during the nesting season, a pre-construction survey shall be conducted by a qualified biologist for nesting tricolored blackbirds within 15 days of the onset of construction. All suitable habitats of the BSA will be covered during this survey.
- BIO-8:** *Establish Buffers.* If active nests are identified within or near construction zones, an appropriate construction-free buffer will be established around the nests (as determined

by a qualified biologist) and maintained until the nesting season is over, or until the biologist determines the nests are no longer active.

BIO-9: *Avoidance.* In order to avoid impacts to nesting birds, Project construction will take place between September 1 and January 31, outside of the typical avian nesting season.

BIO-10: *Pre-construction Surveys.* If Project construction must occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active bird nests within 15 days of the onset of these activities.

BIO-11: *Establish Buffers.* Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant Impact. The Porter Slough runs along the northern boundary of the proposed Project site while the majority of the site consists of an actively maintained vacant field. As a part of the Project, a pedestrian bridge will be installed to span the Slough to maintain connectivity with the residential development to the north. There is no riparian habitat or other sensitive natural community on site or adjacent to the Project. As such, any impacts would be *less than significant*.

Mitigation Measures: None are required.

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant Impact. According to the National Wetlands Inventory⁹, no wetlands occur in or near the Project site. Impacts would be *less than significant*.

Mitigation Measures: None are required.

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact. The proposed Project area consists of an actively maintained vacant field. According to Figure 3.6-1, Special Status Species & Sensitive Vegetation, of the Porterville 2030 General Plan Update, the site is mapped as cropland, orchards, or vineyards and has no special status species or sensitive vegetation in the vicinity. The Porter Slough runs directly north of the proposed Project site and the Project includes a pedestrian bridge to maintain connectivity and walkability with the residential development to the north. Wildlife in the area will continue to utilize the Porter Slough after the pedestrian bridge is installed, as the bridge will span the slough, similar to other pedestrian crossings in the vicinity. Any impacts to native species movement would be *less than significant*.

Mitigation Measures: None are required.

- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant Impact. The City of Porterville's General Plan includes various policies for the protection of biological resources. The proposed Project would not conflict with any of the adopted policies and any impacts would be considered *less than significant*.

Mitigation Measures: None are required.

- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

⁹ US Department of Fish and Wildlife. National Wetlands Inventory. <https://www.fws.gov/wetlands/data/Mapper.html>. Accessed February 2018.

Less than Significant Impact. Several conservation and recovery plans apply to land in the City, including the Recovery Plan for Upland Species of the San Joaquin Valley and the Valley Elderberry Longhorn Beetle Habitat Conservation Plan. A review of Figure 6-4 (Special Status Species and Sensitive Vegetation) in the City of Porterville's General Plan indicates the Project site is not within an area set aside for the conservation of habitat or sensitive plant or animal species pursuant to such plans. The nearest such areas are the Valley Elderberry Longhorn Beetle Conservation Area located southeast of the Project site along the Tule River within the Yaudanchi Ecological Reserve. As such, any impacts would be *less than significant*.

Mitigation Measures: None are required.

V. CULTURAL
RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Environmental Setting

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

The City of Porterville and Tulare County was inhabited by indigenous California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Most information regarding these groups is based on Spanish government and Franciscan mission records of the 18th and 19th centuries, and in studies conducted during the 1900s to 1930s by American and British

ethnographers. The ethnographic setting presented below is derived from the early works, compiled by W. J. Wallace, Robert F.G. Spier, and Charles R. Smith, with statistical information provided by the California Native American Heritage Commission.

Of the four main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory, which is defined roughly by the crest of the Diablo Range on the west and the foothills of the Sierra Nevada on the east, and from the Kings River on the north, to the Tehachapi Mountains on the south. The Foothill Yokuts inhabited the western slopes of the Sierra Nevada, between the Fresno River and Kern River, with settlements generally occurring between the 2,000 to 4,000-foot elevations. The Tubatulabal inhabited the Sierra Nevada Mountains, at the higher elevations, near Mt. Whitney in the east, extending westward along the drainages of the Kern River, and the Kern River-South Fork. The Monache were comprised of six small groups that lived in the Sierras east of the Foothill Yokuts, in locations ranging between 3,000 to 7,000 foot elevations.

An intensive Class III cultural resources inventory/Phase I survey was conducted for the proposed Project by ASM Affiliates, Inc and is provided in Appendix B. A records search of the site files and maps was conducted at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. A Sacred Lands File Request was also submitted to the Native American Heritage Commission. These investigations determined that the proposed Project had not been previously surveyed and that no sites or tribal cultural resources were known to exist within it. Fieldwork was conducted in February 2018 with parallel transects spaced at 15-meter intervals walked along the approximately 17-acre Project site. No historical resources or properties of any kind were discovered within the Project area.

Regulatory Setting

Federal

Cultural resources are protected by several federal regulations, none of which are relevant to this proposed Project because it will not be located on lands administered by a federal agency and the Project applicant is not requesting federal funding.

State

The proposed Project is subject to CEQA which requires public or private projects financed or approved by public agencies to assess their effects on historical resources. CEQA uses the term “historical resources” to include buildings, sites, structures, objects or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. CEQA states that if implementation of a project results in significant effects on historical resources, then alternative plans or

mitigation measures must be considered; however, only significant historical resources need to be addressed (CCR 15064.5, 15126.4). For the purposes of this CEQA document, a significant impact would occur if project implementation:

- Causes a substantial change in the significance of a historical resource
- Causes a substantial adverse change in the significance of an archaeological resource
- Disturbs any human remains, including those interred outside of formal cemeteries

Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined. CEQA guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review:

- If the resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR)
- If the resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the PRC unless the preponderance of evidence demonstrates that it is not historically or culturally significant
- The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (CCR, Title 14, Division 6, Chapter 3, Section 15064.5(a))

Each of these ways of qualifying as a historical resource for the purpose of CEQA is related to the eligibility criteria for inclusion in the CRHR (PRC 5020.1(k), 5024.1, 5024.1(g)).

A historical resource may be eligible for inclusion in the CRHR if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
 - Is associated with the lives of persons important in our past
 - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
 - Has yielded, or may be likely to yield, information important in prehistory or history
- Properties that are listed in or eligible for listing in the National Register of Historic Places are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1(d)(1)).

Public Resources Code §5097.5

California Public Resources Code §5097.5 prohibits excavation or removal of any “vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands.” Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.

Senate Bill 18

SB 18 requires cities and counties to contact, and consult with California Native American tribes prior to amending or adopting any general plan or specific plan, or designating land as open space.

Human Remains

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner’s authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper and dignified treatment of the remains and associated grave artifacts.

Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.

CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 (see above) also applies to paleontological resources.

Local

Porterville General Plan Policies

- OSC-G-11: Identify and protect archaeological, paleontological, and historic resources.
- OSC-I-72: Develop an agreement with Native American representatives for consultation in the cases where new development may result in disturbance to Native American sites.
- OSC-I-73: Require that new development analyze and avoid any potential impacts to archaeological, paleontological, and historic resources by:
 - Requiring a records review for development proposed in areas that are considered archaeologically sensitive, including hillsides and near the Tule River;
 - Studying the potential effects of development and construction (as required by CEQA);
 - Developing, where appropriate, mitigation measures to minimize potential impacts; and Implementing appropriate measures to avoid the identified impacts.

RESPONSES

- a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than Significant Impact with Mitigation. The records search conducted at the SSJVIC (Appendix B) indicated that there are no recorded cultural resources within the Project area or within the ½ mile radius and it is unknown if any exist. There are no recorded cultural resources within the Project area or within ½ mile that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

Subsurface construction activities associated with the proposed Project could potentially damage or destroy previously undiscovered historic resources. This is considered a potentially significant impact; however, implementation of Mitigation Measure CUL1 will ensure that significant impacts remain *less than significant with mitigation incorporation*.

CUL-1 The following measures shall be implemented:

- Before initiation of construction or ground-disturbing activities associated with the Project, the City shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources;
- The general contractor and its supervisory staff shall be responsible for monitoring the construction Project for disturbance of cultural resources; and
- If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction activities (i.e., trenching, grading), all construction activities within a 100-foot radius of the identified potential resource shall cease until a qualified archaeologist evaluates the item for its significance and records the item on the appropriate State Department of Parks and Recreation (DPR) forms. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. The City of Porterville shall implement said measures.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant Impact with Mitigation. The possibility exists that subsurface construction activities may encounter undiscovered archaeological resources. This would be a potentially significant impact. Implementation of Mitigation Measure CUL-1 would require inadvertently discovery practices to be implemented should previously undiscovered archeological resources be located. As such, impacts to undiscovered archeological resources would be *less than significant with mitigation incorporation*.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact with Mitigation. There are no unique geological features or known fossil-bearing sediments in the vicinity of the proposed Project site. However, there remains the possibility for previously unknown, buried paleontological resources or unique geological sites to be uncovered during subsurface construction activities. Therefore, this would be a potentially significant impact. Mitigation

is proposed requiring standard inadvertent discovery procedures to be implemented to reduce this impact to a level of *less than significant with mitigation incorporation*.

CUL-2 The City of Porterville will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed Project (i.e., trenching, grading), all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the City of Porterville, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the City shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code section 21083.2.

d. Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. Although unlikely given the highly disturbed nature of the site and the records search did not indicate the presence of such resources, subsurface construction activities associated with the proposed Project could potentially disturb previously undiscovered human burial sites. Accordingly, this is a potentially significant impact. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on-site, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. The NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98.

Although considered unlikely subsurface construction activities could cause a potentially significant impact to previously undiscovered human burial sites, however compliance with regulations would reduce this impact to *less than significant*.

Mitigation Measures: None are required.

VI. GEOLOGY AND SOILS

Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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ii. Strong seismic ground shaking?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

iii. Seismic-related ground failure, including liquefaction?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

iv. Landslides?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b. Result in substantial soil erosion or the loss of topsoil?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

d. Be located on expansive soil, as defined in Table 18-1-B of the most recently

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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adopted Uniform Building Code
creating substantial risks to life or
property?

- e. Have soils incapable of adequately
supporting the use of septic tanks or
alternative waste water disposal systems ☐ ☐ ☐ ☒
where sewers are not available for the
disposal of waste water?

SETTING

Environmental Setting

The City of Porterville is situated along the western slope of a northwest-trending belt of rocks comprising the Sierra Nevada and within the southern portion of the Cascade Range. The Sierra Nevada geomorphic province is primarily composed of cretaceous granitic plutons and remnants of Paleozoic and Mesozoic metavolcanic and metasedimentary rocks, and Cenozoic volcan and sedimentary rocks. The majority of Porterville has elevations ranging from 400 to 800 feet. However, the eastern portion of the City is in the Sierra Nevada foothills where elevations reach almost 1,800 feet above sea level.

Faulting and Seismicity

There are no known active earthquake faults in the City of Porterville. The proposed Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known faults cut through the local soil at the site. There are several faults located within a 70 mile radius of the proposed Project site. An unnamed fault is approximately seven miles south, Poso Creek Fault is 30 miles southwest, White Wolf Fault Zone is 60 miles south, San Andreas and Cholame-Carrizo Fault sections are approximately 69 miles southwest of the proposed Project site. These faults are small and have exhibited activity in the last 1.6 million years, but not in the last 200 years. It is possible, but unlikely, that previously unknown faults could become active in the area. No Alquist-Priolo Earthquake Fault Zones are in or near Porterville. Porterville is located in a Seismic Zone 3 of the 1994 Uniform Building Code (UBC). This zone is expected to experience moderate effects from earthquake ground shaking. This seismic zone is expected to experience moderate effects from earthquake ground shaking activity.

Soils

According to the City's General Plan EIR, much of the Project area has soils with moderate to high erosion potential. Generally, areas most susceptible to soil erosion are hilly or have slopes greater than 15 percent. Lower flatlands, such as the subject site, are usually less likely to erode than those located on slopes.

Regulatory Setting

Federal

Federal regulations for geology and soils are not relevant to the proposed Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or a federal permit).

State

Uniform Building Code

The California Code of Regulations (CCR) Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The California Building Code incorporates by reference the Uniform Building Code with necessary California amendments. The Uniform Building Code is a widely adopted model building code in the United States published by the International Conference of Building Officials. About one-third of the text within the California Building Code has been tailored for California earthquake conditions.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

Porterville General Plan Policies

- OSC-G-5: Preserve soil resources to minimize damage to people, property, and the environment resulting from potential hazards.
- OSC-G-6: Protect significant mineral resources.
- OSC-I-21: Adopt soil conservation regulations to reduce erosion caused by overgrazing, plowing, mining, new roadways and paths, construction, and off-road vehicles.
- OSC-I-23: Require adequate grading and replanting to minimize erosion and prevent slippage of manmade slopes.
- PHS-G-4: Protect soils, surface water, and groundwater from contamination from hazardous materials.

- PHS-I-17: Require remediation and cleanup of sites contaminated with hazardous substances.

RESPONSES

a-i. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The proposed Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone. Since no known surface expression of active faults is believed to cross the site, fault rupture through the site is not anticipated. *No impacts* would occur.

Mitigation Measures: None are required.

a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less than Significant Impact. The City of Porterville's 2030 General Plan identified the City as being within the Uniform Building Code Seismic Zone 3. The California Geological Survey maintains a web-based computer model that estimates probabilistic seismic ground motions for any location with California. The computer model estimates the "Design Basis Earthquake" ground motion, which is defined as the peak ground acceleration with a 10-percent chance of exceedance in 50 years (475-year return period). For an alluvium soil type, the Project site's estimated peak ground acceleration is approximately 0.22g.

Project related building construction will conform to the latest standards for seismic design as adopted by the Uniform Building Code. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Less than Significant Impact. See Response a-ii. According to the City of Porterville General Plan, Public Health and Safety Element the Project site is in the Seismic -3 zone, the site has a moderate to high risk of damaging ground motion; however the Project's Valley location has a low risk of liquefaction. No Subsidence prone soils or oil or gas production is involved with the proposed Project. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less than Significant Impact. The City of Porterville's 2030 General Plan, Figure 7-1 (Geological and Soil Hazards) indicates that the proposed Project site is located on relatively flat topography and is not located adjacent to any steep slopes or areas that would otherwise be subject to landslides. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

b. Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. The City of Porterville sits on top of the alluvial fans of the Tule River and its distributaries. The bedrock is present at relatively shallow depths beneath the eastern end of Porterville. The soil in the proposed Project area is characterized as moderately deep, well-drained, sandy loam underlain by hardpan. The Project site has a generally flat topography, is in an established urban area and does not include any Project features that would result in soil erosion or loss of topsoil. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact. The City of Porterville sits on top of the alluvial fans of the Tule River and its distributaries. The bedrock is present at relatively shallow depths beneath the eastern end of Porterville. The soil in the

proposed Project area is characterized as moderately deep, well-drained, sandy loam underlain by hardpan. See also Response a-ii. There is *no impact*.

Mitigation Measures: None are required.

d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

Less than Significant Impact. See Responses c and a-ii. The impact is *less than significant*.

Mitigation Measures: None are required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project will tie into the City's existing wastewater system and will not require installation of a septic tank or alternate wastewater disposal system. There is *no impact*.

Mitigation Measures: None are required.

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VII. GREENHOUSE GAS EMISSIONS

Would the project:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Environmental Setting

Various gases in the earth’s atmosphere play an important role in moderating the earth’s surface temperature. Solar radiation enters earth’s atmosphere from space and a portion of the radiation is absorbed by the earth’s surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs are transparent to solar radiation, but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth’s atmosphere. This phenomenon is known as the greenhouse effect. Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO₂), methane (CH₄), ozone, Nitrous Oxide (NO_x), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and TACs (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more

extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident.

Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state's useable annual water supply. The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.

Regulatory Setting

Federal

The USEPA Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO₂-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the CAA permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and title V Operating Permit programs are required for new and existing industrial facilities.

In addition, the Supreme Court decision in *Massachusetts v. EPA* (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the CAA. On April 17, 2009, the USEPA found that CO₂, CH₄, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not proposed regulations based on this finding.

State

California is taking action to reduce GHG emissions. In June 2005, Governor Schwarzenegger signed Executive Order S-3-05 to address climate change and GHG emissions in California. This order sets the following goals for statewide GHG emissions:

- Reduce to 2000 levels by 2010
- Reduce to 1990 levels by 2020
- Reduce to 80 percent below 1990 levels by 2050

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

San Joaquin Valley Air Pollution Control District (SJVAPCD)

In August 2008, the SJVAPCD adopted the Climate Change Action Plan, which directed the SJVAPCD to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific greenhouse gas emissions on global climate change.

In 2009, the SJVAPCD adopted the guidance document: Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA. This document recommends the usage of performance-based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project-specific greenhouse gas emissions on global climate change during the environmental review process. Projects implementing BPS in accordance with SJVAPCD's guidance would be determined to have a less than significant individual and cumulative impact on greenhouse gas emissions and would not require project specific quantification of greenhouse gas emissions.¹⁰

RESPONSES

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact with Mitigation. Greenhouse gas emissions would generate from long-term area and mobile sources as well as indirectly from energy consumption. Mobile sources would include residential vehicle trips and area source emissions would result from consumption of natural gas and electricity. As discussed above, projects implementing BPS would not require quantification of specific greenhouse gas emissions and such projects would be determined to have a less than significant individual and cumulative impact for greenhouse gas emissions. As such, the proposed Project's greenhouse gas emissions would not be considered a significant impact if the Project would implement BPS strategies, in accordance with SJVAPCD recommendations. Exact project feature details are not yet

¹⁰ SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts. March 19, 2015. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Page 112.

available, therefore, the implementation of **GHG-1** would ensure that any impacts remain *less than significant*.

Mitigation Measures

GHG-1: The project applicant shall demonstrate compliance with the applicable BPS strategies to the Planning Division prior to the issuance of a building permit. The following PBS strategies are considered to be applicable, feasible, and effective in reducing greenhouse gas emissions generated by the project:

- The project applicant shall provide a pedestrian access network that internally links all residential units and connects to the existing surrounding external streets and pedestrian facilities.
- The project applicant shall ensure site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential uses that impede bicycle or pedestrian circulation shall be eliminated. In addition, barriers to pedestrian access of neighboring facilities and sites shall be minimized.
- Any transit stops associated with the project shall be provided with safe and convenient bicycle/pedestrian access and provide essential transit stop improvements (i.e., shelters, route information, benches, and lighting).
- The project applicant shall install energy efficient roofing materials.
- The project applicant shall incorporate bike lanes and routes into the street system.
- The project applicant shall plant trees to provide shade.
- The project applicant shall install only natural gas or electric stoves in residences. The project applicant shall install energy efficient heating and cooling systems, appliances and equipment, and control systems.

#

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?

Less Than Significant. As discussed above, the SJVAPCD adopted guidance that relies on the use of BPS strategies to assess significance of project-specific greenhouse gas emissions impacts. Project implementing BPS strategies in accordance with SJVAPCD's guidance would be determined to have a less than significant impact on greenhouse gas emissions and would not require project specific quantification of greenhouse gas emissions. With implementation of GHG-1, the proposed Project would implement BPS strategies as discussed in the SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. Therefore, the proposed Project would not conflict with policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a safety hazard for people residing or working in the project area?

- g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

☐☐☐☒
- h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

☐☐☐☒

SETTING

Environmental Setting

The proposed Project site is located in the western portion of the City adjacent to residential and agricultural land uses. The site is fallowed but actively disked for weed control.

The nearest residences are immediately south and east of the Project site. The Project site is approximately three miles north of the Porterville Municipal Airport. Fresno-Yosemite International Airport is the closest regional airport to the proposed Project site, approximately 60 miles northwest.

The Teapot Dome Landfill plant is approximately five miles southwest of the City limits, while the Porterville Wastewater Treatment Plant is located approximately 1½ mile southeast of the site. Burton Middle School and William R Buckley Elementary School are 0.1 miles and 0.20 miles north of the proposed Project site, respectively.

Regulatory Setting

Federal

The primary federal agencies with responsibility for hazardous materials management include the EPA, U.S. Department of Labor Occupational Safety and Health Administration (OSHA), and the U.S. Department of Transportation (DOT). The Environmental Protection Agency (EPA) was created to protect human health and to safeguard the natural environment – air, water and land – and works closely with other federal agencies, and state and local governments to develop and enforce regulations under

existing environmental laws. Where national standards are not met, EPA can issue sanctions and take other steps to assist the states in reaching the desired levels of environmental quality. EPA also works with industries and all levels of government in a wide variety of voluntary pollution prevention programs and energy conservation efforts.

State

The California Department of Industrial Relations, Division of Occupational Safety and Health is the administering agency designed to protect worker health and general facility safety. The California Department of Forestry and Fire Protection has designated the area that includes the, proposed Project site as a Local Responsibility Area, defined as an area where the local fire jurisdiction is responsible for emergency fire response.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

City of Porterville Fire Department

The City of Porterville Fire Department, Fire Prevention Division provides limited oversight of hazardous materials. The Fire Department is responsible for conducting inspections for code compliance and fire-safe practices, permitting of certain hazardous materials, and for investigation of fire and hazardous materials incidents. The Fire Department regulates explosive and hazardous materials under the Uniform Fire Code, and permits the handling, storage and use of any explosive or other hazardous material.

Tulare County Environmental Health Division

The Tulare County Environmental Health Division (TCEHD) is the Certified Unified Program Agency (CUPA) for all cities and unincorporated areas within Tulare County. The CUPA was created by the California Legislature to minimize the number of inspections and different fees for businesses. The TCEHD provides the management and record keeping of hazardous materials and underground storage tank (UST) sites for Tulare County, including the City of Porterville.

Porterville General Plan Policies

- PHS-G-1: Minimize risks of property damage and personal injury posed by geologic and seismic hazards.

- PHS-I-2: Maintain and enforce appropriate building standards and codes to avoid and/or reduce risks associated with geologic constraints and to ensure that all new construction is designed to meet current safety regulations.
- PHS-I-17: Require remediation and cleanup of sites contaminated with hazardous substances.
- PHS-I-18: Adopt a Household Hazardous Waste Program and support the proper disposal of hazardous household waste and waste oil; encourage citizens and crime watch organizations to report unlawful dumping of hazardous materials.
- PHS-I-19: Ensure that all specified hazardous facilities conform to the Tulare County Hazardous Waste Management Plan.
- PHS-I-21: Coordinate enforcement of the Hazardous Material Disclosure Law and the implementation of the Hazardous Material Emergency Response Plan with the Tulare County Health and Human Service Agency.

RESPONSES

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The proposed Project would include the construction of up to 80 single-family residential homes, including new internal access roads. The average size of each residential lot would range from 4,375 to 9,932 square feet. Proposed Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. Therefore, no significant impacts would occur during construction activities.

The operational phase of the proposed Project would occur after construction is completed and employees move in to occupy the structures on a day-to-day basis. The proposed Project includes land uses that are considered compatible with the surrounding uses. None of these land uses routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential grade hazardous materials such as household and commercial cleaners, paint, etc. The

proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur. Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be *less than significant*.

Mitigation Measures: None are required.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. See Response a. above. Any accumulated hazardous construction or operational wastes will be collected and transported away from the site in compliance with all federal, state and local regulations. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. Burton Middle School and William R Buckley Elementary School are 0.1 miles and 0.20 miles north of the proposed Project site, respectively. As the proposed Project includes the development of single-family residences, it is not reasonably foreseeable that the proposed Project will cause a significant impact by emitting hazardous waste or bringing hazardous materials within one-quarter mile of an existing or proposed school. Residential land uses do not generate, store, or dispose of significant quantities of hazardous materials. Such uses also do not normally involve dangerous activities that could expose persons onsite or in the surrounding areas to large quantities of hazardous materials. See also Responses a. and b. regarding hazardous material handling. The impact is *less than significant*.

Any impacts would be *less than significant*.

Mitigation Measures: None are required.

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The proposed Project site is not located on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (Geotracker and DTSC Envirostor databases – accessed in February 2018). The nearest Department of Toxic Substances Control listed site (as a school investigation) is the Burton Middle School site on North Elderwood Street, located approximately one-tenth of a mile north of the proposed Project site). There are no hazardous materials sites that impact the Project. As such, *no impacts* would occur that would create a significant hazard to the public or the environment.

Mitigation Measures: None are required.

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. Based on review of the 2030 General Plan, the proposed Project site is approximately three miles northeast of the Porterville Municipal Airport. Land use controls for this area are provided by the City of Porterville General Plan and Development Ordinance, and the Tulare County General Plan and Zoning Ordinance, Part 77.21. The City of Porterville has also prepared an airport master plan for the Porterville Municipal Airport. The Project site is outside the height and safety restriction zones imposed by these plans. There is *no impact*.

Mitigation Measures: None are required.

- f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There are no private airstrips in the Project vicinity and as such, there is *no impact*.

Mitigation Measures: None are required.

- g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The City of Porterville lists California State Routes 65 and 190 and Olive Avenue as evacuation routes. The proposed Project would include new internal access roads to the future residential development and does not include any changes to any other public or private roadways that would interfere with the established evacuation routes or shelters identified by the City's General Plan. There is *no impact*.

Mitigation Measures: None are required.

h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. There are no wildlands on or near the Project site. The proposed Project is located in a suburban area not considered to be of high wildland fire risk.¹¹ There is *no impact*.

Mitigation Measures: None are required.

¹¹ City of Porterville General Plan, Figure 7-4.

<http://www.ci.porterville.ca.us/depts/CommunityDevelopment/documents/WildlandFireHazards.pdf>. Accessed February 2018.

IX. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IX. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
provide substantial additional sources of polluted runoff?				
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Environmental Setting

The City of Porterville has a dry climate with evaporation rates that exceed rainfall. The local climate is considered warm desert with annual precipitation between approximately seven to nine inches, and rainfall rates are highly variable. The majority of precipitation (roughly 84%) falls during the months of November through April.

The Porterville area is underlain by an unconfined aquifer that is part of the Tule Sub-basin of the San Joaquin Valley Groundwater Basin.

Regulatory Setting

Federal

Clean Water Act

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

State

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The proposed Project site is located within the Central Valley Region.

Regional Water Quality Board

The Regional Water Quality Control Board (RWQCB) administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan will include specifications for Best Management Practices (BMPs) that will be implemented during proposed Project construction to control degradation of surface water by preventing the potential erosion of

sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established by the RWQCB in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP will describe measures to prevent or control runoff degradation after construction is complete, and identify a plan to inspect and maintain these facilities or project elements.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

Porterville General Plan Policies

- OSC-I-43: Work with agricultural and industrial uses to ensure that water contamination and waste products are handled in a manner that protects the long-term viability of water resources.
- OSC-I-44: Work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the CEQA review and project approval process) and monitored to ensure long-term compliance.
- OSC-I-45: Continue to require use of feasible and practical best management practices (BMPs) and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities and urban runoff in coordination with the Regional Water Quality Control Board.
- OSC-I-51: Prior to the approval of individual projects, require the City Engineer and/or Building Official to verify that the provisions of applicable point source pollution programs have been satisfied.
- PHS-G-2: Protect the community from risks to life and property posed by flooding and stormwater runoff.

RESPONSES

a. Violate any water quality standards or waste discharge requirements?

Less than Significant Impact. The State Water Resources Control Board requires any new construction project over an acre to complete a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP involves

site planning and scheduling, limiting disturbed soil areas, and determining best management practices to minimize the risk of pollution and sediments being discharged from construction sites. Implementation of the SWPPP will minimize the potential for impacts associated with erosion or siltation onsite or offsite.

The proposed Project will result in wastewater from residential units that will be discharged into the City's existing wastewater treatment system. The wastewater will be typical of other urban/residential developments consisting of bathrooms, kitchen drains and other similar features. The project will not discharge any unusual or atypical wastewater. As there is no change of land use type proposed in this Project (residential), site buildout has been planned for and anticipated. Therefore, the proposed Project will not result in additional production of wastewater that was not already accounted for in the City's infrastructure planning documents.

Additionally, there will be no discharge to any surface or groundwater source. As such, the proposed Project will not violate any water quality standards and will not impact waste discharge requirements. The impact will be *less than significant*.

Mitigation Measures: None are required.

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Background and Existing Conditions

The City of Porterville (and proposed Project site) is located in the Tulare Lake Basin, an area significantly affected by overdraft. The Department of Water Resources (DWR) has estimated the groundwater by hydrologic region and for the Tulare Lake Basin; the total overdraft is estimated at 820,000 acre-feet per year, the greatest overdraft projected in the state, and 56 percent of the statewide total overdraft. The proposed Project site is located within the Tule Sub-basin portion of the greater San Joaquin Valley Groundwater Basin. According to the City's General Plan EIR, wells in and around the city have shown a moderate groundwater level decline of about 0.75 feet per year over the past 20 years. The City's municipal wells are generally scattered west of Plano Avenue and south of Westfield Avenue and the distribution system is operated under pressure.

The City of Porterville receives all of its municipal water from groundwater.¹² The current source capacity from the system's wells is 11,965 gallons per minute (gpm). The City's current water demands are estimated to be:¹³

Average Day Demand = 7,388 gpm

Maximum Day Demand = 12,250 gpm

Peak Hour Demand = 26,882 gpm

The system maintains 10.1 million gallons of above-ground storage which is allowing it to sufficiently meet the peak hour demand. Current well production is at approximately 51% of the original well design capacity. Due to drought conditions and aging wells, the capacities of the wells have declined over recent years.

The City's peak hour demand is being adequately met through storage and source water supplies.¹⁴ The City's source water supply appears to be just adequate to meet current maximum day demand, however there is no room for failure of any sources. The well capacity is necessary to refill the storage tanks after they are depleted during peak hour periods. During months of peak water use and with an increase in demand, the current well production may be insufficient for filling the tanks prior to the next day. Additional water sources are recommended in anticipation of water levels continuing to decline and to add a factor of safety to the system.¹⁵

Planned Improvements

Well 32 was recently constructed which provides an additional 400 gpm into the central zone. Continuous pumping of this well could provide an additional 400,000 to 500,000 gallons of water per day.¹⁶ The City also has a number of projects planned to increase water availability within the City limits over the coming decades. These projects include the Beverly Grand and Akin Water Consolidation Projects. The City also does its own groundwater recharge through a system of ponding basins and waterways. Other potential projects include construction of a surface water treatment plant, water distribution system improvements and ongoing water conservation efforts. It is estimated that these improvements, along with continued groundwater pumping, will allow the City to provide adequate water supplies through Year 2030 and beyond.

¹² City of Porterville – Hydraulic Analysis, page 1. Dee Jaspar & Associates, Inc. (May 2015).

¹³ Ibid. Page 1.

¹⁴ Ibid. Page 7.

¹⁵ City of Porterville – Hydraulic Analysis, page 7. Dee Jaspar & Associates, Inc. (May 2015).

¹⁶ Ibid.

Estimated Water Use (City-wide)

The City's Master Water Study had information regarding total water demand through the mid 1990's. Water production records from the past 5 years were provided by Dee Jaspar & Associates Inc. in May 2015. As shown in Table 5, it appears that water production¹⁷ has not increased significantly since 1997. The table shows the historical water use of the City.

Table 5 Annual Water Use (Million Gallons)	
Year	Water Use
1993	3,027
1994	3,203
1995	3,426
1996	3,444
1997	4,150
2010	4,037
2011	3,958
2012	4,243
2013	4,290
2014	3,883

Similar estimates are provided in the City's General Plan EIR. For example, according to Table 5 above, Year 2010 had a production of approximately 4,037 million gallons/year, which converts to roughly 12,500 acre/feet/year. The City's General Plan EIR estimated that Year 2010 had a consumption of approximately 13,000 acre/feet/year. According to Porterville's General Plan EIR (Table 3.10-3) the City's water demand was and/or is projected as follows:

- Year 2005 12,700 ac/ft/yr
- Year 2010 (projected) 13,000 ac/ft/yr
- Year 2015 (projected) 15,100 ac/ft/yr
- Year 2020 (projected) 16,580 ac/ft/yr
- Year 2030 (projected) 30,000 ac/ft/yr

It should be noted that because of recent water restrictions, the actual water use by the City has decreased yearly since 2013 even though the City's General Plan (2007) anticipated an increase in water use based on an increasing population.

Using more recently updated information from the City's Urban Water Management Plan update (October 2017), the City produced/used approximately 3,117 MG (9,565 ac/ft/yr) of water from

¹⁷ Ibid. Page 4.

groundwater supplies to serve a population of 65,702 in 2015. Of that, approximately 1,786 MG were for single family residential.¹⁸ This was approximately 37% less than what the General Plan projected for water use for Year 2015.

Water Conservation

The City began implementing Phase IV of its Drought Response Plan on December 1, 2017. As part of the Phase IV Plan, the City has restricted watering days to one day per week, based on address. This and other mandatory water conservation measures are being enforced with fines of up to \$500 for non-compliance.¹⁹

Anticipated Water Use (Project Specific)

To determine the estimated water use by the proposed Project, this analysis uses the same calculation methods as the City's most recent Urban Water Management Plan (UWMP), which was updated in October 2017. According to the City's UWMP, the City has a Year 2020 water usage goal of 179 gallons per capita per day (gpcpd).²⁰ To determine the number of persons (water users) that would result from the proposed Project, this analysis uses the City's 2015-2023 Housing Element (September 2015) which shows an average household size of 3.39 persons per household in Porterville.²¹

The proposed Project would include the construction of up to 80 single family residences. Applying the City's average of 3.39 persons per household, this equates to approximately 271 persons. At 179 gallons per day per capita, the project would require approximately 17.7 MG per year of potable water (271 residents X 179 gpcpd X 365 days = 17,705,785 gallons of potable water per year).

For purposes of comparison, in 2015, the City used approximately 1,786 MG for single family residential. The proposed Project, at 17.7 MG per year would be 0.0099% of that total. The site associated with this project was previously planned for high density residential, and thus was included in the City's Urban Water Management Plan and General Plan at a higher density than what is currently being proposed. Therefore, given that the proposed Project is presenting less residential units than what was planned for in the City's long-range planning documents; represents a relatively small percent of the total water use; and will be subject to the City Ordinance 1830 Sections 25-54 and other water restricting regulations, the impact to water supply is determined to be less than significant.

¹⁸ Porterville 2015 Urban Water Management Plan (October 2017), page 14.

¹⁹ <http://www.ci.porterville.ca.us/depts/PublicWorks/waterconservation.cfm> (accessed March 2018).

²⁰ Porterville 2015 Urban Water Management Plan (October 2017), page 15.

²¹ Porterville Housing Element 2015-2023 (Sept 2015), page 30.

Water Availability

The proposed Project is anticipated to utilize City groundwater to support the residential development. The City has historically used groundwater to meet all of their water demands. Although the City's aquifer is in a state of overdraft, they could still meet their water demands for several more years solely with groundwater.²² However, the City recognizes that continued overdraft of the City's groundwater is not sustainable. As such, the City has and/or is planning to implement several mechanisms to address this shortfall. These include reliance on surface water, increased groundwater recharge projects, and consolidated water projects. The City's General Plan EIR indicates that by 2030, total water demand by the City will be 30,000 acre feet per year, which will exceed the groundwater availability. The Urban Water Management Plan (UWMP) indicates that future demand can be met with continued groundwater pumping, surface water purchases and conservation measures.

The project site was included in the both the UWMP and the City's General Plan land use / water use projections. Since there are no land use changes proposed (other than a reduction in density), the project will not result in additional use of groundwater that was not already accounted for in the City's infrastructure planning documents (and subsequently analyzed in their respective CEQA documents). As such, there is *a less than significant impact* to this impact area.

Mitigation Measures: None are required.

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Less than Significant Impact. The site is presently vacant ground. The site will be designed so that storm water is collected and deposited in the City's existing storm drain system, which has adequate capacity. The storm water collection system design will be subject to review and approval by the City Public Works Department. Storm water during construction will be managed as part of the Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP is retained on-site during construction. As a result, impacts would be *less than significant*.

²² Porterville UWMP, page 42. (2010)

Mitigation Measures: None are required.

- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less than Significant Impact. Impacts regarding the alteration of drainage patterns to increase runoff that will potentially induce flooding have been discussed in the impact analysis for Response IX-c. Storm water during construction will be managed as part of the Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP is retained on-site during construction. All other on-site drainage will be collected and deposited in the City's storm drain system. As a result, impacts are *less than significant*.

Mitigation Measures: None are required.

- e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact. See Responses a, c and d. Implementation of the proposed Project will not require expansion of the City's existing stormwater system (other than the onsite collection system), nor will it result in additional sources of polluted runoff. The impact is *less than significant*.

Mitigation Measures: None are required.

- f. Otherwise substantially degrade water quality?

Less than Significant Impact. See Responses a, c and d. The Project would not otherwise degrade water quality and therefore the impact is *less than significant*.

Mitigation Measures: None are required.

- g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The Project site is not within a 100-year or 500-year flood zone, as shown on Figure 7-3 of the 2030 General Plan. There is no housing associated with this Project. Therefore, there is *no impact*.

Mitigation Measures: None are required.

h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The Project site is not within a 100-year flood zone, as shown on Figure 7-3 of the 2030 General Plan. The site is located in a 500-year flood zone and will be designed for adequate storm drainage. Therefore, there is *no impact*.

Mitigation Measures: None are required.

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. Flows into the Tule River (located approximately one-half mile south of the Project site) are controlled by the Success Dam located approximately five miles upstream from the City. A dam failure is usually the result of neglect, poor design, or structural damage caused by a major event such as an earthquake. Dams must be operated and maintained in a safe manner, which is ensured through inspections for safety deficiencies, analyses using current technologies and designs, and taking corrective actions as needed based on current engineering practices.

The Project site is located within the Success Dam inundation area, as shown on Figure 7-3 of the 2030 General Plan. This inundation area runs through Porterville, to a location downstream of Corcoran, a distance of approximately 44 miles. The Army Corp Of Engineers (ACOE) is in the process of completing an environmental impact statement for reinforcing the strength of the dam in the event of seismically induced failure. The Project site is within the 0.5-hour to 1-hour inundation zone of Success Dam. In the event of a dam failure, most of the City would be flooded within one hour.

The Porterville Emergency Operations Plan (EOP), adopted in 2004, includes planning and response scenarios for seismic hazards, extreme weather conditions, landslides, dam failure and other flooding. The City has designated several evacuation routes through Porterville to be used in case of catastrophic emergencies. In the unlikely event that the dam fails before the ACOE's proposed dam reinforcement completion date of 2014–2015, the dam owner would follow the emergency action plan (EAP) developed for Success Dam. The EAP includes a notification flowchart, early detection systems, notification for warning and evacuation by state and local emergency management officials, steps to moderate or alleviate the effects of a dam failure, and inundation maps. No impervious surfaces are being proposed.

As such, impacts related to exposure of people or structures to a risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam would be *less than significant*.

Mitigation Measures: None are required.

j. Inundation by seiche, tsunami, or mudflow?

No Impact. There are no inland water bodies that could be potentially susceptible to a seiche in the Project vicinity. This precludes the possibility of a seiche inundating the Project site. The Project site is more than 100 miles from the Pacific Ocean, a condition that precludes the possibility of inundation by tsunami. There are no steep slopes that would be susceptible to a mudflow in the Project vicinity, nor are there any volcanically active features that could produce a mudflow in the City of Porterville. This precludes the possibility of a mudflow inundating the Project site. *No impacts* would occur.

Mitigation Measures: None are required.

X. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Environmental Setting

The proposed Project site is located in the westernmost part of the City of Porterville and is currently fallowed and being disked for weed control. To the north is the Porter Slough and residential development, to the east is a retirement community and meeting facility, the south is Henderson Avenue and residential development and to the west are rural residences and agriculture.

The site is currently zoned RM-3 (High Density Residential). General Plan Designation, land use and zoning surrounding the site are identified in Table 6.

Table 6
Existing Land Use, General Plan Designation and Zoning

Location	Existing Land Use	Current Zoning Classification	General Plan Designation
North	Single family residences	Low Density Residential (RS-2)	Low Density Residential
South	Single family residences, agriculture and rural residences	Low Density Residential (RS-2), Very Low Density Residential (RS-1)	Low Density Residential
West	Agriculture, rural residences	Medium Density Residential (RM-2)	Neighborhood Commercial, Medium Density Residential
East	Meeting facility, retirement home	Neighborhood Commercial (CN)	Neighborhood Commercial

Existing land uses in City of Porterville have been organized into generalized categories that are summarized below on Table 7. City of Porterville has a 2030 General Plan planned build-out of approximately 36,341 acres in size, equivalent to approximately 56.6 square-miles.

Table 7
Existing Land Use: City of Porterville Planning Area (2005)²³

Generalized Land Use Category	Total	Percentage
Agriculture/Rural/Conservation	21,270	59%
Single Family Residential	4,760	13%
Multi Family Residential	240	1%
Retail Shopping	80	0%
Commercial	760	2%
Industrial	350	1%
Public/Quasi-Public	2,630	7%
Vacant	3,590	10%
Unclassified (Roads, water, etc)	2,661	7%
Total Area	36,341	100%

²³ City of Porterville Land Use Element

Regulatory Setting

Federal

Federal regulations for land use are not relevant to the proposed Project because it is not a federal undertaking (the proposed Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or a federal permit).

State

The proposed Project is being evaluated pursuant to CEQA; however, there are no state regulations, plans, programs, or guidelines associated with land use and planning that are applicable to the proposed Project.

Local

Porterville General Plan Policies

- LU-I-20: Establish standards for pedestrian-oriented design in neighborhood centers.
- LU-I-21: Prohibit new strip commercial developments.
- LU-I-22: Promote and support the revitalization and infill development in existing retail shopping centers.
- LUI-23: Establish an incentive program that will provide for density and FAR bonuses for mixed-use development that includes amenities for public benefit, such as workforce housing, pedestrian-oriented facilities (outdoor seating, plazas, weather protection, transit waiting areas), historic preservation, cultural facilities, public art and water features, and open space preservation.
- LU-I-24: Allow supporting retail, business services and other complementary uses in Professional Office districts.

RESPONSES

- a. Physically divide an established community?

No Impact. The proposed Project is located along the western edge of the City of Porterville, in an area of suburban residential and agricultural land uses. The proposed Project site is currently fallowed but has a residential land use designation and zone. The construction and operation of the Project would not cause any land use changes in the surrounding vicinity nor would it divide an established community. *No impacts* would occur as a result of this Project.

Mitigation Measures: None are required.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. As part of the proposed Project, the General Plan Land Use would change from High Residential to Low-Medium Density Residential and the site would be rezoned from High Density Residential (RM-3) to a Planned Development (PD) zone district to accommodate the proposed density. The following findings must be met in order to achieve the PD zone district:

- The proposed development is consistent with the General Plan and any applicable specific plan, including the density and intensity limitations that apply;
- The site for the proposed development is adequate in size and shape to accommodate the proposed uses and all setbacks, open spaces, walls and fences, parking area, loading areas, landscape, and other features required;
- Adequate transportation facilities and public services exist or will be provided in accord with the conditions of development plan approval, to serve the proposed development; and the approval of the proposed development will not result in a reduction of traffic levels of service or public services so as to be a detriment to public health, safety, or welfare;
- The proposed development will not have a substantial adverse effect on surrounding land uses and will be compatible with the existing and planned land use character of the surrounding area;
- The improvements required, and the manner of development adequately address all natural and man-made hazards associated with the proposed development and the project site, including but not limited to, flood, fire, and seismic or soils hazards; and
- The proposed development provides a more efficient use of the land and superior architecture and site design compared to that which could be achieved through the application of the zoning district regulations that otherwise would apply.

The findings described above have been considered throughout the Project design process, and as such, the project is consistent with the requirements of the PD zone district. Any impacts will be *less than significant*.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. A review of the 2030 General Plan, Figure 6-4 (Special Status Species and Sensitive Vegetation) indicates the Project site is not within an adopted or proposed conservation plan area. The nearest such plan area is the Valley Elderberry Longhorn Beetle Conservation Area, located along the Tule River within the Yaudanchi Ecological Reserve. There would be *no impact* to an adopted or proposed conservation plan area.

Mitigation Measures: None are required.

XI. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Environmental Setting

The City of Porterville is situated along the western slope of a northwest-trending belt of rocks comprising the Sierra Nevada and within the southern portion of the Cascade Range. The Sierra Nevada geomorphic province is primarily composed of cretaceous granitic plutons and remnants of Paleozoic and Mesozoic metavolcanic and metasedimentary rocks, and Cenozoic volcan and sedimentary rocks. The majority of the Planning Area has elevations ranging between 400 and 800 feet; however, the eastern portion is in the Sierra Nevada foothills where elevations reach almost 1,800 feet above sea level.

Historically, the quarrying of magnesite was a significant industry in the City of Porterville. Currently, the most economically significant mineral resources in Tulare County are sand, gravel, and crushed stone, used as sources for aggregate (road materials and other construction). The two major sources of aggregate are alluvial deposits (river beds, and floodplains), and hard rock quarries. Consequently, most Tulare County mines are located along rivers at the base of the Sierra foothills.

Tule River contains various State-classified mineral resource zones (MRZ-2a, MRZ-2b, and MRZ-3a). While this area was once suitable for mining operations, it is now surrounded by urban development. Approximately 890 acres along the Tule River, or 2.5 percent of all lands within the Planning Area, are within mineral resource zones. Tule River contains various State-classified mineral resource zones (MRZ-2a, MRZ-2b, and MRZ-3a). While this area was once suitable for mining operations, it is now surrounded by urban development. Approximately 890 acres along the Tule River, or 2.5 percent of all lands within the Project Area, are within mineral resource zones.

Regulatory Setting

Federal

There are no federal or local regulations pertaining to mineral resources relevant to the proposed Project.

State

California Surface Mining and Reclamation Act of 1975

Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710 et seq., ensures a continuing supply of mineral resources for the State.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

Porterville General Plan Policies

- OSC-I-21: Adopt soil conservation regulations to reduce erosion caused by overgrazing, plowing, mining, new roadways and paths, construction, and off-road vehicles.
- OSC-I-23: Require adequate grading and replanting to minimize erosion and prevent slippage of manmade slopes.
- PHS-G-4: Protect soils, surface water, and groundwater from contamination from hazardous materials.
- PHS-I-17: Require remediation and cleanup of sites contaminated with hazardous substances.

RESPONSES

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. As shown in Figure 6-3 of the 2030 General Plan, the proposed Project area is not included in a State classified mineral resource zones. Therefore, there is *no impact*.

Mitigation Measures: None are required.

- b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. As shown in Figure 6-3 of the 2030 General Plan, the proposed Project area is not included in a State classified mineral resource zones. Soil disturbance for the proposed Project would be limited site ground work such as grading, foundations, and installation of infrastructure. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Environmental Setting

The Project site is located in the western part of the City of Porterville and is currently a fallowed site that is routinely disked for weed removal. The site is located in an established area that provides a mix of land uses, including residential and agriculture.

The primary existing noise sources contributing to ambient noise in the proposed Project area are traffic noises from Henderson Avenue.

Regulatory Setting

Federal

The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage³². The FTA has identified the human annoyance response to vibration levels as 80 RMS.

State

The California Noise Control Act was enacted in 1973 (Health and Safety Code § 46010 et seq.), and states that the Office of Noise Control (ONC) should provide assistance to local communities in developing local noise control programs. It also indicates that ONC staff will work with the OPR to provide guidance for the preparation of the required noise elements in city and county General Plans, pursuant to Government Code § 65302(f). California Government Code § 65302(f) requires city and county general plans to include a noise element. The purpose of a noise element is to guide future development to enhance future land use compatibility.

In addition, this proposed Project is being evaluated pursuant to CEQA.

Local

Measuring and reporting noise levels involves accounting for variations in sensitivity to noise during the daytime versus nighttime hours. Noise descriptors used for analysis need to factor in human sensitivity to nighttime noise when background noise levels are generally lower than in the daytime and outside noise intrusions are more noticeable. Common descriptors include the Community Noise Equivalent Level (CNEL) and the Day-Night Average Level (Ldn). Both reflect noise exposure over an average day with weighting to reflect the increased sensitivity to noise during the evening and night. The two descriptors are roughly equivalent. The CNEL descriptor is used in relation to major continuous noise

sources, such as aircraft or traffic, and is the reference level for the Noise Element under State planning law. The Noise Element included in the 2030 City of Porterville General Plan (2008) includes noise and land use compatibility standards for various land uses. These are shown in Table 8 below.

Table 8
Land Use Compatibility for Community Noise Environment

Land Use Category	Community Noise Exposure, L_{dn} or CNEL dB			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low density single family, duplex,	<65 (<45 Interior)	65 to 70	70 to 75	>75 (>45 Interior)
Residential – Multiple family	<65 (<45 Interior)	65 to 70	70 to 75	>75 (>45 Interior)
Schools, libraries, churches, hospitals, nursing	<70	60 to 75	70 to 80	>80
Industrial, manufacturing, utilities, agriculture	<75	70 to 80	75 to 85	No levels identified

Normally acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally unacceptable – New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly unacceptable – New construction or development should generally not be undertaken.

Porterville General Plan Policies

- N-G-1: Minimize vehicular and stationary noise levels and noise from temporary activities.
- N-G-2: Ensure that new development is compatible with the noise environment.
- N-G-5: Reduce noise intrusion generated by miscellaneous noise sources through conditions of approval to control noise-generating activities.

- N-I-7: Require noise from existing mechanical equipment to be reduced by soundproofing materials and sound-deadening installation.

RESPONSES

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact With Mitigation. According to the City's General Plan EIR, the major noise sources in Porterville are related to roadways and vehicle traffic. Much of the Project area, along with the area adjacent to the Project site is in an established noise contour (Henderson Avenue) for noise levels greater than 55 dB and 60 dB as shown in Figure 9-2 of the City's General Plan Noise Element.

The site itself is located in an urban area adjacent to roadways that are heavily travelled. Noise from the proposed Project will be similar to existing conditions and will generally include noise from vehicles, air conditioner units and other similar equipment. Because of its location at a heavily used arterial and its location in a noise contour, it is not expected that the proposed Project will result in a discernable increase in noise to surrounding land uses.

Proposed Project construction related activities will involve temporary noise sources and are anticipated to last approximately four months. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 9, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 9
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The City of Porterville's General Plan Noise Element (2008) sets the standard noise threshold of 60 dBA at the exterior of nearby residences; however, it does not identify a short-term, construction-noise-level threshold. The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban environments. Most residents of urban areas recognize this reality and expect to hear construction activities on occasion.

Although impacts are considered less than significant, implementation of Mitigation Measure NO-1 through NO-4 will ensure that impacts remain *less than significant with mitigation incorporation*.

NO-1 During the construction period, delivery trucks serving the Project shall be limited to between 6:00 A.M. and 9:00 P.M. Monday through Friday and between 7:00 A.M. and 5:00 PM on Saturday or Sunday to avoid noise-sensitive hours of the day.

NO-2 Construction activities shall be limited to between 6:00 A.M. and 9:00 P.M. Monday through Friday and between 7:00 A.M. and 5:00 PM on Saturday or Sunday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on holidays (President's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving, Day after Thanksgiving, Christmas Day, and New Year's Day).

NO-3 The construction contract shall require the construction contractor to ensure that construction equipment noise is minimized by muffling and shielding intakes and exhaust on construction equipment (in accordance with the manufacturer's specifications) and by shrouding or shielding impact tools.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. Construction associated with the proposed Project includes the construction of residences and roadways.

The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day. Table 10 describes the typical construction equipment vibration levels.

Table 10
Typical Construction Vibration Levels

Equipment	VdB at 25 ft
Small Bulldozer	58
Jackhammer	79

Vibration from construction activities will be temporary and not exceed the FTA threshold for the nearest residences which are located approximately 50 feet west of the development. The impact will be *less than significant*.

Mitigation Measures: None are required.

- c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. See Response a. There will be no substantial permanent increase in ambient noise levels and therefore the impact is *less than significant*.

Mitigation Measures: None are required.

XIII. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Environmental Setting

Over the past 30 years, the City of Porterville’s population has grown at an average annual rate of 3.7 percent. However, the City’s population growth slowed to an average annual rate of 2.8 percent over the most recent 15 years. In 2006, the California Department of Finance (DOF) estimated the City with a population of 45,220 residents. In 2010, the City had an estimated population of 54,165 residents. In 2011 the City grew to 54,676 residents, while the City recorded an approximate population of 55,490 in 2012. According to the most recent California DOF report, the City currently is at approximately 55,490 residents, a 0.5 percent increase from 2012. Build-out of the 2030 General Plan will accommodate a population of approximately 107,300 in Porterville, which represents an annual population growth rate of 3.7 percent.

Regulatory Setting

The proposed Project is being evaluated pursuant to CEQA; however, there are no federal, state or local regulations, plans, programs, and guidelines associated with population or housing that are applicable to the proposed Project.

RESPONSES

- a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. The proposed Project would include the construction of up to 80 single family residences and internal access roads, which would result in approximately 207 additional residents based on the estimated 2.58 persons per household²⁴ for the City of Porterville. The proposed Project site is currently designated as High Density according to the General Plan; however, as a part of the Project, will be redesignated to Medium-Low Density residential, which will result in a lesser population than what was originally planned for and evaluated in the Porterville 2030 General Plan EIR. As such, any impacts are *less than significant*.

Mitigation Measures: None are required.

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Less than Significant. There are no residential structures currently onsite. The Project will not displace any housing and therefore there is *less than significant*.

Mitigation Measures: None are required.

- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. The Project will not displace any people and therefore there is *no impact*.

Mitigation Measures: None are required.

²⁴ US Census Bureau. Households and Families: 2010. <https://www.census.gov/prod/cen2010/briefs/c2010br-14.pdf>. Accessed February 2018.

XIV. PUBLIC SERVICES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Environmental Setting

The proposed Project site is in an area already served by public service systems. The nearest fire station is Porterville Fire Station 2, which is located at the Public Works complex that is approximately 1.36 miles to the southeast of the proposed Project site. The physical address of the fire station is 500 N Newcomb Street. The Porterville Police Department is located approximately 3.2 miles southeast of the proposed Project site at 350 N D Street.

The Teapot Dome Landfill plant is approximately five miles southwest of the City limits, while the Porterville Wastewater Treatment Plant is located approximately 1½ mile southeast of the site. Burton Middle School and William R Buckley Elementary School are 0.1 miles and 0.20 miles north of the proposed Project site, respectively.

Regulatory Setting

Federal

National Fire Protection Association

The National Fire Protection Association (NFPA) is an international nonprofit organization that provides consensus codes and standards, research, training, and education on fire prevention and public safety. The NFPA develops, publishes, and disseminates more than 300 such codes and standards intended to minimize the possibility and effects of fire and other risks. The NFPA publishes the NFPA 1, Uniform Fire Code, which provides requirements to establish a reasonable level of fire safety and property protection in new and existing buildings.

State

California Fire Code and Building Code

The 2007 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to fire fighters and emergency responders during emergency operations. The provision of the Fire Code includes regulations regarding fire-resistance rated construction, fire protection systems such as alarm and sprinkler systems, fire service features such as fire apparatus access roads, fire safety during construction and demolition, and wildland urban interface areas.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

Porterville General Plan Policies

- LU-G-5: Promote sustainability in the design and development of public and private
- PHS-I-28: Ensure that new development incorporates safety concerns into the site, circulation, building design and landscaping plans.

RESPONSES

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the

construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services;

Fire protection?

Less than Significant Impact. The proposed Project site will continue to be served by City of Porterville Fire Station No. 2, which is approximately 1.36 miles southeast of the proposed Project site. The project applicant would be required to submit plans to the City Fire Department for review and approval prior to the issuance of building permits to ensure the Project would conform to applicable building codes and would provide an on-site fire hydrant system in the event of an on-site fire. The Project would also include new internal access roads that would provide access to emergency vehicles in the event of a fire and would connect to the larger circulation system to ensure adequate provision of emergency access to the Project site. As such, any impacts would be less *than significant*.

Police Protection?

Less than Significant Impact. The proposed Project will continue to be served by the City of Porterville police department. Implementation of the proposed Project would result in an increase in demand for police services; however, this increase would be minimal compared to the number of officers currently employed by the Porterville Police Department and would not trigger the need for new or physically altered police facilities. Additionally, the proposed Project site is in an area of the City planned for residential development and is currently designated as High Density Residential. As a part of the Project, the General Plan will be amended to designate the site as Low-Medium Density residential. As such, the planned demand on the existing police department will be less. No additional police personnel or equipment is anticipated. The impact is *less than significant*.

Schools?

Less than Significant Impact. The proposed Project site is located within the Burton Elementary School District for elementary and middle school and Porterville Unified School District for high school. The Project site is within the William R Buckley Elementary School Boundary, the Burton Middle School Boundary and the Monache High School Boundary. Based on school district generation rates for new housing units (0.4 elementary, 0.1 middle school and 0.2 high school students per residential unit²⁵), the proposed Project would generate approximately 32 elementary school students, eight middle school students and 16 high school students. Pursuant to California Education Code Section 17620(a)(1), the governing board of any school district is authorized to levy a fee, charge, dedication, or other

²⁵ Porterville 2030 General Plan EIR. SCH 2006011033. Page 234.

requirement against any construction within the boundaries of the district for the purpose of funding the construction or reconstruction of school facilities. The project applicant would be required to pay such fees to reduce any impacts of new residential development of school services. Payment of the developer fees will offset the addition of school-age children within the district. As such, any impacts would be *less than significant*.

Parks?

Less than Significant Impact. The nearest City park to the proposed Project site is Veterans Park, approximately 1.3 miles to the east on Henderson. Immediately north of the proposed Project site is the Porter Creek trail, which extends from Westwood Street west to the westernmost boundary of the Project. The proposed pedestrian bridge will allow connectivity to this trail. To ensure sufficient recreational opportunities, the City has established a Park Impact Fee, implemented by Chapter 19, Parks, Article III, Park Impact Fee, of the Municipal Code. The Municipal Code states that parks must be constructed or expanded commensurate with growth of the City. The City Council determined that a park impact fee is required to assist in the financing of these public park improvements and to pay for new development's fair share of the acquisition and development costs of these improvements. The project applicant would be required to comply with Article III of the Municipal Code. As such, any impacts would remain *less than significant*.

Other public facilities?

Less than Significant Impact. The proposed Project is within the land use and growth projections identified in the City's General Plan and other infrastructure studies. As part of the project, the land use will be redesignated to Medium-Low Density, which demonstrates a lower residential density than the current designation of High Density. As such, the Project would not result in increased demand on other public facilities such as library services that has not already been planned for. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

XV. RECREATION#

Would the project:

- a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Environmental Setting

The City of Porterville provides its residents several types of parks and recreational facilities. Parks are defined as land owned or leased by the City and used for public recreational purposes. The City classifies parks and recreational facilities in five categories: Pocket Parks, Neighborhood Parks, Community Parks, Specialized Recreation, and Trail/Parkways. Currently, the City of Porterville has 15 parks for a total of approximately 295 acres of parkland. Immediately north of the proposed Project site is the Porter Creek trail, which extends from Westwood Street west to the westernmost boundary of the Project.

These facilities range in size from the 0.1-acre North Park pocket park up to the 95-acre Sports Complex facility. With a 2006 population of 45,220 residents, the City has a ratio of 5.1 acres of parkland per 1,000 residents. The park ratio is based on Neighborhood Parks, Community Parks, and Specialized Recreation areas only. Trails, Community Facilities and Pocket Parks do not contribute to the ratio.

Regulatory Setting

The proposed Project is being evaluated pursuant to CEQA; however, there are no additional federal, state or local regulations, plans, programs, and guidelines associated with recreation that are applicable to the proposed Project.

RESPONSES

- a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than Significant Impact. As described in Impact XIV(a), the City has established a Park Impact Fee through the Municipal Code, which states that parks must be constructed or expanded commensurate with growth of the City. The project applicant will be required to comply with that Municipal Code and as such, any impacts will be *less than significant*.

Mitigation Measures: None are required.

- b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less than Significant Impact. The proposed Project does not include the construction of recreation facilities, rather, it includes the payment of a Park Impact Fee as directed by the Municipal Code. *Less than significant impacts* would occur.

Mitigation Measures: None are required.

XVI. TRANSPORTATION/ TRAFFIC

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? ☐ ☐ ☐ ☒

SETTING

Environmental Setting

The proposed Project is located on APNs 240-05-033 and -034 and totals approximately 17 acres on the south side of Henderson Avenue between the Friant-Kern Canal and Westwood Street. The site is approximately two miles north of SR190. See Figures 1 and 2– Regional Map and Vicinity Map, respectively.

The nearest airport to the proposed Project site is the Porterville Municipal Airport, which is located approximately three miles south of the site.

Henderson Avenue is classified as a four-lane arterial between the Friant-Kern Canal and Plano Street. It provides east-west access for Porterville residents and has an interchange at SR65. Henderson Avenue bisects North Main Street and provides access to businesses and residences to the east.

Regulatory Setting

Federal

Several federal regulations govern transportation issues. They include:

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
- 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

State

State of California Transportation Department Transportation Concept Reports

Each District of the State of California Transportation Department (Caltrans) prepares a Transportation Concept Report (TCR) for every state highway or portion thereof in its jurisdiction. The TCR usually represents the first step in Caltrans' long-range corridor planning process. The purpose of the TCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period, otherwise known as the "route concept" or beyond 20 years, for what is known as the "ultimate concept".

The segment of SR 190 in the proposed project vicinity is designated as Segment 3. SR 190 is classified by Caltrans as rural except for the portion in Porterville which is designated urban. The route is also predominately indicated as a Minor Arterial and Major Collector. Therefore, the Route Concept LOS of D has been assigned to the entire route. Segment 3 is a 4-lane expressway and there are no changes expected to this segment.

SR 65 is designated as Segment 7 in the vicinity of the proposed Project site and has a LOS of C. The route concept for Segment 7 of Route 65 is described by Caltrans as a two-lane expressway, with improvements potentially being a four-lane expressway over the next 10 years.

In addition, the proposed Project is being evaluated pursuant to CEQA.

Local

The City of Porterville and the Tulare County Regional Transportation Plan designate level of service "D" as the minimum acceptable intersection peak hour level of service standard.

Porterville General Plan Policies

- C-G-6: Maintain acceptable levels of service and ensure that future development and the circulation system are in balance.
- C-G-7: Ensure that new development pays its fair share of the costs of transportation facilities.
- C-I-12: Continue to require that new development pay a fair share of the costs of street and other traffic and local transportation improvements based on traffic generated and impacts on traffic service levels.

RESPONSES

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than Significant Impact. The Project Applicant intends to construct a 80 single family residential development with square lot size ranging from 4,375 to 9,932 square feet. Project components include interior access roads, street lighting and landscaping, and a pedestrian bridge over the Porter Slough to maintain connectivity with the residential development to the north.

According to the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 9th Edition, the proposed Project of 80 single family residential units are estimated to generate 766 daily vehicle trips and 81 peak PM trips. These estimated trips are well below the City's standard of 2,500 average daily vehicle trips on local residential streets as identified in General Plan Policy C-I-9. Additionally, at buildout of the General Plan, the section of Henderson between the Friant-Kern Canal and Prospect is estimated to have a LOS of B. As the proposed Project introduces a residential density less than what the General Plan has projected, any impacts would be considered *less than significant*.

Mitigation Measures: None are required.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less than Significant Impact. As shown in Response a., the proposed Project will have a *less than significant* impact on any existing level of service or other travel demand measures. The Project will not conflict with any congestion management programs, as none are applicable to the Project.

Mitigation Measures: None are required.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

No Impact. The Project site is approximately three miles north of the Porterville Municipal Airport. There are no characteristics of the Project that would have any impact on air traffic patterns. There is *no impact*.

Mitigation Measures: None are required.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. No roadway design features associated with this proposed Project would result in an increase in hazards due to a design feature or be an incompatible use. See also Response XVI-a. There is *no impact*.

Mitigation Measures: None are required.

e. Result in inadequate emergency access?

No Impact. No roadway design features associated with this proposed Project would result in an increase in hazards due to a design feature or be an incompatible use. See also Response XVI-a. There is *no impact*.

Mitigation Measures: None are required.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. No roadway design features associated with this proposed Project would result in an increase in hazards due to a design feature or be an incompatible use. See also Response XVI-a. There is *no impact*.

Mitigation Measures: None are required.

XVII. TRIBAL CULTURAL RESOURCES

Would the project:

- a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
 - ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Federal

The National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) established federal regulations for the purpose of protecting significant cultural resources. The legislation established the National Register of Historic Places and the National Historic Landmarks Program. It mandated the establishment of the State Historic Preservation Office (SHPO), responsible for implementing statewide historic preservation programs in each state. A key aspect of SHPO responsibilities include surveying, evaluating and nominating significant historic buildings, sites, structures, districts and objects to the National Register. The NHPA also established requirements for federal agencies to consider the effects of proposed federal Projects on historic properties (Section 106, NHPA). Federal agencies and recipients of federal funding are required to initiate consultation with the SHPO as part of the Section 106 review process.²⁶

State

California State Office of Historic Preservation (OHP)

The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), appointed by the governor, and the State Historical Resources Commission, a nine-member state review board appointed by the governor.

Among OHP's responsibilities are identifying, evaluating, and registering historic properties; and ensuring compliance with federal and state regulations. The OHP administers the State Register of Historical Resources and maintains the California Historical Resources Information System (CHRIS) database. The CHRIS database includes statewide Historical Resources Inventory (HRI) database. The records are maintained and managed under contract by eleven independent regional Information Centers. Tulare, Fresno, Kern, Kings and Madera counties are served by the Southern San Joaquin Valley

²⁶ Advisory Council on Historic Preservation, National Historic Preservation Program: Overview, <http://www.achp.gov/overview.html>, accessed February 2018

Information Center (Center), located in Bakersfield, CA. The Center provides information on known historic and cultural resources to governments, institutions and individuals.²⁷

A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important to our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.²⁸

Tribal Consultation Requirements: SB 18 (Burton, 2004)²⁹

On September 29, 2004, Governor Schwarzenegger signed Senate Bill 18, Tribal Consultation Guidelines, into law. This bill amended Section 815.3 of the Civil Code, to amend Sections 65040.2, 65092, 65351, 65352, and 65560 of, and to add Sections 65352.3, 65352.4, and 65562.2 to, the Government Code, relating to traditional tribal cultural Places. SB 18, enacted March 1, 2005, creates a mechanism for California Native American Tribes to identify culturally significant sites that are located within public or private lands within the city or county's jurisdiction. SB 18 requires cities and counties to contact, and offer to consult with, California Native American Tribes before adopting or amending a General Plan, a Specific Plan, or when designating land as Open Space, for the purpose of protecting Native American Cultural Places (PRC 5097.9 and 5097.993). The Native American Heritage Commission (NAHC) provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe.

Tribal Consultation Requirements: AB 52 (Gatto, 2014)³⁰

²⁷ California Office of Historic Preservation, Mission and Responsibilities, http://ohp.parks.ca.gov/?page_id=1066, Accessed February 2018

²⁸ California Office of Historic Preservation, California Register: Criteria for Designation, http://www.ohp.parks.ca.gov/?page_id=21238, Accessed February 2018

²⁹ Senate Bill No. 18, Chapter 905, http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200320040SB18, Accessed February 2018.

³⁰ Assembly Bill No. 52, Chapter 532, http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52, accessed February 2018

This bill was approved by Governor Brown on September 25, 2014 and became effective July 1, 2015. This bill amended Section 5097.94 of, and to add Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to, the Public Resources Code, relating to Native Americans. The bill specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. This bill requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated (can be a tribe anywhere within the State of California) with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

Existing law establishes the Native American Heritage Commission (NAHC) and vests the commission with specified powers and duties. This bill required the NAHC to provide each California Native American tribe, as defined, on or before July 1, 2016, with a list of all public agencies that may be a lead agency within the geographic area in which the tribe is traditionally and culturally affiliated, the contact information of those agencies, and information on how the tribe may request those public agencies to notify the tribe of projects within the jurisdiction of those public agencies for the purposes of requesting consultation.

The NAHC provides protection to Native American burials from vandalism and inadvertent destruction, provides a procedure for the notification of most likely descendants regarding the discovery of Native American human remains and associated grave goods, brings legal action to prevent severe and irreparable damage to sacred shrines, ceremonial sites, sanctified cemeteries and place of worship on public property, and maintains an inventory of sacred places.³¹

The NAHC performs a Sacred Lands File search for sites located on or near the Project site upon request. The NAHC also provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. As indicated on the NAHC's letter dated January 31, 2018, a Sacred Lands File check indicated negative results (that is, Sacred Lands were not identified) for the Project location (See Appendix C). An opportunity has been provided to Native American tribes listed by the Native American Heritage Commission during the CEQA process as required by AB 52. No Project-specific responses were received by the City in response

³¹ Native American Heritage Commission, About the Native American Heritage Commission, <http://nahc.ca.gov/about/>, accessed February 2018

to the consultation request within the mandatory response time-frames; therefore, this Initial Study has been completed consistent and compliant with AB 52.

RESPONSES

- a-i, a-ii. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant Impact. A Tribal Cultural Resource (TCR) is defined under Public Resources Code section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included and that is listed or eligible for inclusion in the California Register of Historic Resources or in a local register of historical resources, or if the City of Porterville, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR. As discussed above, under Section V, Cultural Resources, criteria (b) and (d), no known archeological resources, ethnographic sites or Native American remains are located on the proposed Project site. As discussed under criterion (b) implementation of Mitigation Measure CULT-1 would reduce impacts to unknown archaeological deposits, including TCRs, to a less than significant level. As discussed under criterion (d), compliance with California Health and Safety Code Section 7050.5 would reduce the likelihood of disturbing or discovering human remains, including those of Native Americans. Any impacts to TCR would be considered *less than significant*.

Mitigation Measures: No additional measures are required.

XVIII. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- g. Comply with federal, state, and local statutes and regulations related to solid waste?

☐☐☒☐

SETTING

Environmental Setting

Utilities required to serve the proposed Project would include: water, sanitary sewer, storm drainage, electricity, and telecommunications infrastructure. Water service, sewage disposal and refuse collection would be provided by the City of Porterville.

Regulatory Setting

State

State Water Resources Control Board (SWRCB)

Waste Discharge Requirements Program. State regulations pertaining to the treatment, storage, processing, or disposal of solid waste are found in Title 27, CCR, Section 20005 et seq. (hereafter Title 27). In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 2744. Several SWRCB programs are administered under the WDR Program, including the Sanitary Sewer Order and recycled water programs.

National Pollutant Discharge Elimination System (NPDES) Permit

As authorized by the Clean Water Act (CWA), the National Pollutant Discharge Elimination System (NPDES) Permit Program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. In California, it is the responsibility of Regional Water Quality Control Boards (RWQCB) to preserve and enhance the quality of the state's waters through the development of water quality control plans and the issuance of waste discharge requirements (WDRs). WDRs for discharges to surface waters also serve as NPDES permits. Tulare County is within the Central Valley RWQCB's jurisdiction.

In addition, the proposed Project is being evaluated pursuant to CEQA.

*Local***Porterville General Plan Policies**

- OSC-G-10: Reduce and conserve energy use in existing and new commercial, industrial, and public structures.
- OSC-I-41: Work with agricultural and industrial uses to ensure that water contamination and waste products are handled in a manner that protects the long-term viability of water resources.
- OSC-I-44: Work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the CEQA review and project approval process) and monitored to ensure long-term compliance.
- OSC-I-51: Prior to the approval of individual projects, require the City Engineer and/or Building Official to verify that the provisions of applicable point source pollution programs have been satisfied.

RESPONSESa. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less than Significant Impact. Implementation of the proposed Project would include up to 80 single family residential units on the project site. The project site is located within the service territory of the Porterville Wastewater Treatment Facility (WWTF). Since the WWTF is considered a publicly owned treatment works, operational discharge flows treated at the WWTF would be required to comply with applicable water discharge requirements issued by the Central Valley Regional Water Quality Control Board (RWQCB). Compliance with conditions or permit requirements established by the City as well as water discharge requirements outlined by the Central Valley RWQCB would ensure that wastewater discharges coming from the proposed Project site and treated by the WWTF system would not exceed applicable Central Valley RWQCB wastewater treatment requirements. The impact will be *less than significant*.

Mitigation Measures: None are required.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. As discussed in Section XVIII(a), implementation of the proposed Project would result in the need for additional wastewater treatment service; however, as acknowledged in the General Plan, the City will begin planning for additional WWTF capacity to accommodate growth and development allowed under the General Plan when the influent flow reaches 6.4 million gallons per day. Additionally, the Project applicant would be required to comply with any applicable City and WWTF regulations and would be subject to applicable development impact fees and wastewater connection charges. Therefore, with compliance to applicable standards and payment of required fees and connection charges, the Project would not result in a significant impact related to construction or expansions of existing wastewater treatment facilities. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. As discussed in Section IX, Hydrology and Water Quality, with an increase in the amount of impervious surfaces on the Project site an increase in the amount of storm water runoff is anticipated. The site will be designed so that storm water is collected and deposited in the City's existing storm drain system, which has adequate capacity. The storm water collection system design will be subject to review and approval by the City Public Works Department. Storm water during construction will be managed as part of the Storm Water Pollution Prevention Plan (SWPPP). A copy of the SWPPP is retained on-site during construction. As a result, impacts would be *less than significant*.

Mitigation Measures: None are required.

- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. The City of Porterville (and proposed Project site) is located in the Tulare Lake Basin, an area significantly affected by overdraft. The Department of Water Resources (DWR) has estimated the groundwater by hydrologic region and for the Tulare Lake Basin; the total overdraft is estimated at 820,000 acre-feet per year, the greatest overdraft projected in the state, and 56 percent of the statewide total overdraft. The proposed Project site is located within the Tule Sub-basin portion of the greater San Joaquin Valley Groundwater Basin. According to the City's General Plan EIR, wells in and around the city have shown a moderate groundwater level decline of about 0.75 feet per year over the

past 20 years. The City's municipal wells are generally scattered west of Plano Avenue and south of Westfield Avenue and the distribution system is operated under pressure.

As described in Impact IX(b), the site associated with this Project was previously planned for high density residential, and thus was included in the City's Urban Water Management Plan and General Plan at a higher density than what is currently being proposed. Therefore, given that the proposed Project is presenting less residential units than what was planned for in the City's long-range planning documents; represents a relatively small percent of the total water use; and will be subject to the City Ordinance 1830 Sections 25-54 and other water restricting regulations, the City will have sufficient supply to serve the proposed Project with the existing entitlements. Impact will be *less than significant*.

Mitigation Measures: None are required.

- e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact. See response (b), above. Any impacts will be *less than significant*.

Mitigation Measures: None are required.

- f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than Significant Impact. Disposal services in the City are provided by the City of Porterville. As of 2004, the City's solid waste was disposed at Teapot Dome landfill, located approximately five miles southwest of the City limits. Teapot Dome is a County-operated Class III landfill permitted to discharge up to 600 tons per day. As of 2004, the landfill was at 84.7 percent capacity with a remaining capacity of 998,468 cubic yards. According to the City's General Plan, once Teapot Dome landfill reaches capacity, the City anticipates using its transfer facility to divert waste to the Visalia landfill.

The Visalia Disposal Site, located approximately 35 miles northwest of the City limits, is a County-operated Class III landfill permitted to discharge up to 2,000 tons a day. As of 2006, the landfill was at 13.3 percent capacity with a remaining capacity of 16,145,600 cubic yards and an anticipated closure date of 2024. The estimated closure date is considered to be worst case scenario, where diversion goals are not met.

Pena Disposal accepts all the recyclables for the City. This processing and transfer facility is approximately 35 miles from City limits and is permitted for unlimited recycling, 2,000 tons per day of mixed solid waste, 100 tons per day of yard waste and 175 tons per day of construction and demolition waste. Most household hazardous wastes, including e-waste, must be taken to various sites in Visalia, except on the biannual clean-up days when the County sets up a drop-off site in Porterville.

According to the General Plan, solid waste generation rates in Porterville are approximately 2.0 pounds per day per resident. Therefore, the proposed Project would include the development of 80 residential units resulting in a population increase of approximately 207 persons, generation approximately 414 points per day of solid waste.

Implementation of the proposed Project would result in an increase in solid waste disposal needs; however, this increase would be minimal and, as indicated in the General Plan, the County anticipates the available landfill capacity will be sufficient through 2030. The proposed Project would result in *less than significant* impacts to solid waste and landfill facilities.

Mitigation Measures: None are required.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

Less than Significant Impact. See Response f, above. The proposed Project would be required to comply with all federal, State, and local regulations related to solid waste. Furthermore, the proposed Project would be required to comply with all standards related to solid waste diversion, reduction, and recycling during project construction and operation. The proposed Project will comply with all federal, state and local statutes and regulations related to solid waste. As such, any impacts would be *less than significant*.

Mitigation Measures: None are required.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

- a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?
- c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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RESPONSES

- a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the project design to reduce all potentially significant impacts to *less than significant*.

- b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc). The impact is *less than significant*.

- c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project design to reduce all potentially significant impacts to *less than significant*.

Chapter 4

MMRP

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the City of Porterville’s Windsor Court Development Project (proposed Project). The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements as well as conditions recommended by responsible agencies who commented on the project.

The first column of the Table identifies the mitigation measure. The second column, entitled “Party Responsible for Implementing Mitigation,” names the party responsible for carrying out the required action. The third column, “Implementation Timing,” identifies the time the mitigation measure should be initiated. The fourth column, “Party Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last column will be used by the City to ensure that individual mitigation measures have been monitored.

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
BIO-1 <i>Pre-construction Surveys.</i> Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any Project activity likely to impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS 2011 <i>Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance</i> (see Appendix G). The primary objective is to identify kit fox habitat features (e.g. potential dens and refugia) within the BSA and evaluate their use by kit foxes through use of remote monitoring techniques such as motion-triggered cameras and tracking medium. If an active kit fox den is detected within or immediately adjacent to the area of work, the USFWS and CDFW shall be contacted immediately.	City of Porterville	Prior to and during construction	City of Porterville	
BIO-2 <i>Avoidance.</i> Should an active kit fox den be detected within or immediately adjacent to the area of work, a disturbance-free buffer will be established around the den in consultation with the USFWS and CDFW, to be maintained until a qualified biologist has determined that the den is no longer occupied. Known kit fox dens may not be destroyed until they have been vacant for a period of at least three days, as demonstrated by use of motion-triggered	City of Porterville	Prior to and during construction	City of Porterville	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
cameras or tracking medium, and then only after obtaining take authorization from the USFWS.				
<p>BIO-3 <i>Minimization.</i> Construction activities shall be carried out in a manner that minimizes disturbance to kit foxes. Minimization measures include, but are not limited to: restriction of Project-related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g., pipes), as well as installation of escape structures, to prevent the inadvertent entrapment of kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash.</p> <p>BIO-4 <i>Employee Education Program.</i> Prior to the start of construction, the City will retain a qualified biologist to conduct a tailgate meeting that will include a hand out with all of the training information included in it or conduct a Power Point presentation prepared by a qualified biologist to train all construction staff that will be involved with the Project on the San Joaquin kit fox. This training will include a description of the kit fox and its habitat needs; a report of the occurrence of kit fox in the Project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of the measures being taken to</p>	City of Porterville	Prior to and during construction	City of Porterville	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
reduce impacts to the species during Project construction and implementation. The Project manager will use prepared training material to train any additional construction staff that were not in attendance at the first meeting, prior to starting work on the Project.				
BIO-5 <i>Mortality Reporting.</i> In case of the accidental death or injury of a San Joaquin kit fox during Project-related activities, the City will contact Caltrans and Caltrans will notify The Sacramento Field Office of the USFWS. The City will notify the CDFW, directly. All notifications will be submitted in writing within three working days of incident. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	City of Porterville	Prior to and during construction	City of Porterville	
BIO-6 <i>Avoidance.</i> If feasible, Project construction will occur outside of the avian nesting season, typically defined as February 1 st through August 31 st . If construction takes place entirely outside of the nesting season, impacts to nesting tricolored blackbirds will be absent and no other action is necessary.	City of Porterville	Prior to and during construction	City of Porterville	
BIO-7 <i>Pre-construction Surveys.</i> If Project construction must occur during the nesting	City of Porterville	Prior to and during construction	City of Porterville	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<p>season, a pre-construction survey shall be conducted by a qualified biologist for nesting tricolored blackbirds within 15 days of the onset of construction. All suitable habitats of the BSA will be covered during this survey.</p>				
<p>BIO-8 <i>Establish Buffers.</i> If active nests are identified within or near construction zones, an appropriate construction-free buffer will be established around the nests (as determined by a qualified biologist) and maintained until the nesting season is over, or until the biologist determines the nests are no longer active.</p>	City of Porterville	Prior to and during construction	City of Porterville	
<p>BIO-9 <i>Avoidance.</i> In order to avoid impacts to nesting birds, Project construction will take place between September 1 and January 31, outside of the typical avian nesting season.</p>	City of Porterville	Prior to and during construction	City of Porterville	
<p>BIO-10 <i>Pre-construction Surveys.</i> If Project construction must occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active bird nests within 15 days of the onset of these activities.</p>	City of Porterville	Prior to and during construction	City of Porterville	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
BIO-11 <i>Establish Buffers.</i> Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged.	City of Porterville	Prior to and during construction	City of Porterville	
CUL-1 <ul style="list-style-type: none"> ▪ Before initiation of construction or ground-disturbing activities associated with the Project, the Project proponent for all Project phases shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources; ▪ The general contractor and its supervisory staff shall be responsible for monitoring the construction Project for disturbance of cultural resources; and ▪ If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction activities (i.e., trenching, grading), all construction activities within a 100-foot radius of the identified potential resource shall cease until a qualified archaeologist evaluates the item for its 	City of Porterville	Prior to and during construction	City of Porterville	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
significance and records the item on the appropriate State Department of Parks and Recreation (DPR) forms. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. The City of Porterville shall implement said measures.				
CUL-2 The City of Porterville will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed Project (i.e., trenching, grading), all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the City of Porterville, who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the City shall implement those measures, which may include	City of Porterville	During construction	City of Porterville	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code section 21083.2.				
GHG-1 The project applicant shall demonstrate compliance with the applicable BPS strategies to the Planning Division prior to the issuance of a building permit. The following PBS strategies are considered to be applicable, feasible, and effective in reducing greenhouse gas emissions generated by the project: <ul style="list-style-type: none"> • The project applicant shall provide a pedestrian access network that internally links all residential units and connects to the existing surrounding external streets and pedestrian facilities. • The project applicant shall ensure site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as wells, berms, landscaping, and slopes between residential uses that impede bicycle or pedestrian circulation shall be eliminated. In addition, barriers to pedestrian access of neighboring facilities and sites shall be minimized. 				

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<ul style="list-style-type: none"> Any transit stops associated with the project shall be provided with safe and convenient bicycle/pedestrian access and provide essential transit stop improvements (i.e., shelters, route information, benches, and lighting). The project applicant shall install energy efficient roofing materials. The project applicant shall incorporate bike lanes and routes into the street system. The project applicant shall plant trees to provide shade. The project applicant shall install only natural gas or electric stoves in residences. The project applicant shall install energy efficient heating and cooling systems, appliances and equipment, and control systems. 				
NO-1 During construction activities, delivery trucks serving the Project shall be limited to between 6:00 A.M. and 9:00 P.M. Monday through Friday and between 7:00 A.M. and 5:00 PM on Saturday or Sunday to avoid noise-sensitive hours of the day.	City of Porterville	During construction and operation	City of Porterville	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
NO- 2 Construction activities shall be limited to between 6:00 A.M. and 9:00 P.M. Monday through Friday and between 7:00 A.M. and 5:00 PM on Saturday or Sunday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on holidays (President's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving, Day after Thanksgiving, Christmas Day, and New Year's Day).	City of Porterville	During construction and operation	City of Porterville	
NO-3 The construction contract shall require the construction contractor to ensure that construction equipment noise is minimized by muffling and shielding intakes and exhaust on construction equipment (in accordance with the manufacturer's specifications) and by shrouding or shielding impact tools.	City of Porterville	During construction	City of Porterville	

Chapter 5

Preparers

LIST OF PREPARERS

List of Preparers

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Appendices

Appendix A

CalEEMod Output Files

Porterville Windsor Court Development - San Joaquin Valley Unified APCD Air District, Annual

Porterville Windsor Court Development

San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	80.00	Dwelling Unit	25.97	144,000.00	254

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2019
Utility Company					
CO2 Intensity (lb/MWhr)	0	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Development includes the construction of 80 single family units

Construction Phase - Default construction timeline used.

Table Name	Column Name	Default Value	New Value
tblWoodstoves	NumberCatalytic	25.97	0.00
tblWoodstoves	NumberNoncatalytic	25.97	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	Year	tons/yr										MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2018	0.2722	2.8451	1.7215	3.0100e-003	0.3879	0.1414	0.5293	0.1835	0.1309	0.3144	0.0000	272.6637	272.6637	0.0763	0.0000	274.5701
2019	0.3315	2.9198	2.3955	4.1600e-003	0.0380	0.1697	0.2078	0.0103	0.1596	0.1699	0.0000	366.8334	366.8334	0.0783	0.0000	368.7911
2020	1.5440	1.7328	1.5792	2.7500e-003	0.0238	0.0956	0.1193	6.4200e-003	0.0897	0.0961	0.0000	240.0192	240.0192	0.0540	0.0000	241.3681
Maximum	1.5440	2.9198	2.3955	4.1600e-003	0.3879	0.1697	0.5293	0.1835	0.1596	0.3144	0.0000	366.8334	366.8334	0.0783	0.0000	368.7911

Mitigated Construction

Year	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2018	0.2722	2.8451	1.7215	3.0100e-003	0.3879	0.1414	0.5293	0.1835	0.1309	0.3144	0.0000	272.6634	272.6634	0.0763	0.0000	274.5698
2019	0.3315	2.9198	2.3955	4.1600e-003	0.0380	0.1697	0.2078	0.0103	0.1596	0.1699	0.0000	366.8330	366.8330	0.0783	0.0000	368.7907
2020	1.5440	1.7328	1.5792	2.7500e-003	0.0238	0.0956	0.1193	6.4200e-003	0.0897	0.0961	0.0000	240.0189	240.0189	0.0540	0.0000	241.3679
Maximum	1.5440	2.9198	2.3955	4.1600e-003	0.3879	0.1697	0.5293	0.1835	0.1596	0.3144	0.0000	366.8330	366.8330	0.0783	0.0000	368.7907

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-2-2018	10-1-2018	1.6873	1.6873
2	10-2-2018	1-1-2019	1.4254	1.4254
3	1-2-2019	4-1-2019	0.8014	0.8014
4	4-2-2019	7-1-2019	0.8094	0.8094
5	7-2-2019	10-1-2019	0.8183	0.8183
6	10-2-2019	1-1-2020	0.8184	0.8184
7	1-2-2020	4-1-2020	0.7364	0.7364
8	4-2-2020	7-1-2020	0.7357	0.7357
9	7-2-2020	9-30-2020	1.1367	1.1367
		Highest	1.6873	1.6873

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2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7193	0.0368	0.6097	2.2000e-004		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	35.6269	35.6269	1.6200e-003	6.4000e-004	35.8567
Energy	0.0113	0.0964	0.0410	6.2000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.6168	111.6168	2.1400e-003	2.0500e-003	112.2801
Mobile	0.3447	3.5148	3.6012	0.0145	0.8356	0.0195	0.8551	0.2249	0.0185	0.2433	0.0000	1,346.9018	1,346.9018	0.0947	0.0000	1,349.2685
Waste						0.0000	0.0000		0.0000	0.0000	19.3999	0.0000	19.3999	1.1465	0.0000	48.0623
Water						0.0000	0.0000		0.0000	0.0000	1.6536	0.0000	1.6536	0.1698	4.0100e-003	7.0948
Total	1.0753	3.6480	4.2519	0.0154	0.8356	0.0330	0.8686	0.2249	0.0320	0.2568	21.0535	1,494.1454	1,515.1989	1.4148	6.7000e-003	1,552.5623

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7193	0.0368	0.6097	2.2000e-004		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	35.6269	35.6269	1.6200e-003	6.4000e-004	35.8567
Energy	0.0113	0.0964	0.0410	6.2000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.6168	111.6168	2.1400e-003	2.0500e-003	112.2801
Mobile	0.3447	3.5148	3.6012	0.0145	0.8356	0.0195	0.8551	0.2249	0.0185	0.2433	0.0000	1,346.9018	1,346.9018	0.0947	0.0000	1,349.2685
Waste						0.0000	0.0000		0.0000	0.0000	19.3999	0.0000	19.3999	1.1465	0.0000	48.0623
Water						0.0000	0.0000		0.0000	0.0000	1.6536	0.0000	1.6536	0.1698	4.0100e-003	7.0948
Total	1.0753	3.6480	4.2519	0.0154	0.8356	0.0330	0.8686	0.2249	0.0320	0.2568	21.0535	1,494.1454	1,515.1989	1.4148	6.7000e-003	1,552.5623

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/2/2018	8/10/2018	5	30	
2	Site Preparation	Site Preparation	8/11/2018	9/7/2018	5	20	
3	Grading	Grading	9/8/2018	11/9/2018	5	45	
4	Building Construction	Building Construction	11/10/2018	7/17/2020	5	440	
5	Paving	Paving	7/18/2020	9/4/2020	5	35	
6	Architectural Coating	Architectural Coating	9/5/2020	10/23/2020	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 291,600; Residential Outdoor: 97,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	29.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0558	0.5748	0.3346	5.8000e-004		0.0291	0.0291		0.0271	0.0271	0.0000	52.6861	52.6861	0.0145	0.0000	53.0490
Total	0.0558	0.5748	0.3346	5.8000e-004		0.0291	0.0291		0.0271	0.0271	0.0000	52.6861	52.6861	0.0145	0.0000	53.0490

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3.2 Demolition - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.4000e-004	8.3900e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.7176	1.7176	6.0000e-005	0.0000	1.7191
Total	1.1600e-003	8.4000e-004	8.3900e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.7176	1.7176	6.0000e-005	0.0000	1.7191

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0558	0.5748	0.3346	5.8000e-004		0.0291	0.0291		0.0271	0.0271	0.0000	52.6861	52.6861	0.0145	0.0000	53.0489
Total	0.0558	0.5748	0.3346	5.8000e-004		0.0291	0.0291		0.0271	0.0271	0.0000	52.6861	52.6861	0.0145	0.0000	53.0489

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3.2 Demolition - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1600e-003	8.4000e-004	8.3900e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.7176	1.7176	6.0000e-005	0.0000	1.7191
Total	1.1600e-003	8.4000e-004	8.3900e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.7176	1.7176	6.0000e-005	0.0000	1.7191

3.3 Site Preparation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0456	0.4820	0.2248	3.8000e-004		0.0258	0.0258		0.0237	0.0237	0.0000	34.7599	34.7599	0.0108	0.0000	35.0304
Total	0.0456	0.4820	0.2248	3.8000e-004	0.1807	0.0258	0.2064	0.0993	0.0237	0.1230	0.0000	34.7599	34.7599	0.0108	0.0000	35.0304

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3.3 Site Preparation - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3000e-004	6.7000e-004	6.7200e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3741	1.3741	5.0000e-005	0.0000	1.3753
Total	9.3000e-004	6.7000e-004	6.7200e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3741	1.3741	5.0000e-005	0.0000	1.3753

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0456	0.4820	0.2248	3.8000e-004		0.0258	0.0258		0.0237	0.0237	0.0000	34.7599	34.7599	0.0108	0.0000	35.0304
Total	0.0456	0.4820	0.2248	3.8000e-004	0.1807	0.0258	0.2064	0.0993	0.0237	0.1230	0.0000	34.7599	34.7599	0.0108	0.0000	35.0304

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3.3 Site Preparation - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3000e-004	6.7000e-004	6.7200e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3741	1.3741	5.0000e-005	0.0000	1.3753
Total	9.3000e-004	6.7000e-004	6.7200e-003	2.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3741	1.3741	5.0000e-005	0.0000	1.3753

3.4 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1952	0.0000	0.1952	0.0809	0.0000	0.0809	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1145	1.3392	0.7895	1.4000e-003		0.0593	0.0593		0.0545	0.0545	0.0000	127.4591	127.4591	0.0397	0.0000	128.4511
Total	0.1145	1.3392	0.7895	1.4000e-003	0.1952	0.0593	0.2544	0.0809	0.0545	0.1354	0.0000	127.4591	127.4591	0.0397	0.0000	128.4511

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3.4 Grading - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3300e-003	1.6800e-003	0.0168	4.0000e-005	3.6000e-003	3.0000e-005	3.6200e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.4352	3.4352	1.2000e-004	0.0000	3.4382
Total	2.3300e-003	1.6800e-003	0.0168	4.0000e-005	3.6000e-003	3.0000e-005	3.6200e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.4352	3.4352	1.2000e-004	0.0000	3.4382

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1952	0.0000	0.1952	0.0809	0.0000	0.0809	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1145	1.3392	0.7895	1.4000e-003		0.0593	0.0593		0.0545	0.0545	0.0000	127.4590	127.4590	0.0397	0.0000	128.4510
Total	0.1145	1.3392	0.7895	1.4000e-003	0.1952	0.0593	0.2544	0.0809	0.0545	0.1354	0.0000	127.4590	127.4590	0.0397	0.0000	128.4510

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3.4 Grading - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3300e-003	1.6800e-003	0.0168	4.0000e-005	3.6000e-003	3.0000e-005	3.6200e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.4352	3.4352	1.2000e-004	0.0000	3.4382
Total	2.3300e-003	1.6800e-003	0.0168	4.0000e-005	3.6000e-003	3.0000e-005	3.6200e-003	9.6000e-004	3.0000e-005	9.8000e-004	0.0000	3.4352	3.4352	1.2000e-004	0.0000	3.4382

3.5 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0482	0.4210	0.3165	4.8000e-004		0.0270	0.0270		0.0254	0.0254	0.0000	42.7981	42.7981	0.0105	0.0000	43.0602
Total	0.0482	0.4210	0.3165	4.8000e-004		0.0270	0.0270		0.0254	0.0254	0.0000	42.7981	42.7981	0.0105	0.0000	43.0602

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3.5 Building Construction - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.9000e-004	0.0229	4.8800e-003	5.0000e-005	1.0700e-003	1.9000e-004	1.2700e-003	3.1000e-004	1.8000e-004	4.9000e-004	0.0000	4.4489	4.4489	3.8000e-004	0.0000	4.4584
Worker	2.7000e-003	1.9500e-003	0.0195	4.0000e-005	4.1700e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.9848	3.9848	1.4000e-004	0.0000	3.9883
Total	3.5900e-003	0.0248	0.0244	9.0000e-005	5.2400e-003	2.2000e-004	5.4700e-003	1.4200e-003	2.1000e-004	1.6300e-003	0.0000	8.4337	8.4337	5.2000e-004	0.0000	8.4467

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0482	0.4210	0.3165	4.8000e-004		0.0270	0.0270		0.0254	0.0254	0.0000	42.7981	42.7981	0.0105	0.0000	43.0602
Total	0.0482	0.4210	0.3165	4.8000e-004		0.0270	0.0270		0.0254	0.0254	0.0000	42.7981	42.7981	0.0105	0.0000	43.0602

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3.5 Building Construction - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.9000e-004	0.0229	4.8800e-003	5.0000e-005	1.0700e-003	1.9000e-004	1.2700e-003	3.1000e-004	1.8000e-004	4.9000e-004	0.0000	4.4489	4.4489	3.8000e-004	0.0000	4.4584
Worker	2.7000e-003	1.9500e-003	0.0195	4.0000e-005	4.1700e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.9848	3.9848	1.4000e-004	0.0000	3.9883
Total	3.5900e-003	0.0248	0.0244	9.0000e-005	5.2400e-003	2.2000e-004	5.4700e-003	1.4200e-003	2.1000e-004	1.6300e-003	0.0000	8.4337	8.4337	5.2000e-004	0.0000	8.4467

3.5 Building Construction - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795
Total	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795

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3.5 Building Construction - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7400e-003	0.1566	0.0315	3.4000e-004	7.7900e-003	1.1800e-003	8.9700e-003	2.2500e-003	1.1300e-003	3.3800e-003	0.0000	31.9846	31.9846	2.6700e-003	0.0000	32.0513
Worker	0.0176	0.0124	0.1242	3.1000e-004	0.0303	2.2000e-004	0.0305	8.0400e-003	2.1000e-004	8.2500e-003	0.0000	28.0378	28.0378	9.0000e-004	0.0000	28.0603
Total	0.0233	0.1690	0.1557	6.5000e-004	0.0381	1.4000e-003	0.0395	0.0103	1.3400e-003	0.0116	0.0000	60.0224	60.0224	3.5700e-003	0.0000	60.1116

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792
Total	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8106	306.8106	0.0747	0.0000	308.6792

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3.5 Building Construction - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7400e-003	0.1566	0.0315	3.4000e-004	7.7900e-003	1.1800e-003	8.9700e-003	2.2500e-003	1.1300e-003	3.3800e-003	0.0000	31.9846	31.9846	2.6700e-003	0.0000	32.0513
Worker	0.0176	0.0124	0.1242	3.1000e-004	0.0303	2.2000e-004	0.0305	8.0400e-003	2.1000e-004	8.2500e-003	0.0000	28.0378	28.0378	9.0000e-004	0.0000	28.0603
Total	0.0233	0.1690	0.1557	6.5000e-004	0.0381	1.4000e-003	0.0395	0.0103	1.3400e-003	0.0116	0.0000	60.0224	60.0224	3.5700e-003	0.0000	60.1116

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1516	1.3718	1.2047	1.9200e-003		0.0799	0.0799		0.0751	0.0751	0.0000	165.6011	165.6011	0.0404	0.0000	166.6112
Total	0.1516	1.3718	1.2047	1.9200e-003		0.0799	0.0799		0.0751	0.0751	0.0000	165.6011	165.6011	0.0404	0.0000	166.6112

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3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5500e-003	0.0783	0.0149	1.8000e-004	4.2700e-003	4.3000e-004	4.7000e-003	1.2300e-003	4.1000e-004	1.6500e-003	0.0000	17.3758	17.3758	1.3700e-003	0.0000	17.4101
Worker	8.7600e-003	5.9500e-003	0.0605	1.6000e-004	0.0166	1.2000e-004	0.0167	4.4100e-003	1.1000e-004	4.5100e-003	0.0000	14.8863	14.8863	4.3000e-004	0.0000	14.8970
Total	0.0113	0.0843	0.0753	3.4000e-004	0.0209	5.5000e-004	0.0214	5.6400e-003	5.2000e-004	6.1600e-003	0.0000	32.2621	32.2621	1.8000e-003	0.0000	32.3070

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1516	1.3718	1.2047	1.9200e-003		0.0799	0.0799		0.0751	0.0751	0.0000	165.6009	165.6009	0.0404	0.0000	166.6110
Total	0.1516	1.3718	1.2047	1.9200e-003		0.0799	0.0799		0.0751	0.0751	0.0000	165.6009	165.6009	0.0404	0.0000	166.6110

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3.5 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5500e-003	0.0783	0.0149	1.8000e-004	4.2700e-003	4.3000e-004	4.7000e-003	1.2300e-003	4.1000e-004	1.6500e-003	0.0000	17.3758	17.3758	1.3700e-003	0.0000	17.4101
Worker	8.7600e-003	5.9500e-003	0.0605	1.6000e-004	0.0166	1.2000e-004	0.0167	4.4100e-003	1.1000e-004	4.5100e-003	0.0000	14.8863	14.8863	4.3000e-004	0.0000	14.8970
Total	0.0113	0.0843	0.0753	3.4000e-004	0.0209	5.5000e-004	0.0214	5.6400e-003	5.2000e-004	6.1600e-003	0.0000	32.2621	32.2621	1.8000e-003	0.0000	32.3070

3.6 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0237	0.2462	0.2564	4.0000e-004		0.0132	0.0132		0.0121	0.0121	0.0000	35.0494	35.0494	0.0113	0.0000	35.3328
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0237	0.2462	0.2564	4.0000e-004		0.0132	0.0132		0.0121	0.0121	0.0000	35.0494	35.0494	0.0113	0.0000	35.3328

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3.6 Paving - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1100e-003	7.5000e-004	7.6500e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.8846	1.8846	5.0000e-005	0.0000	1.8859
Total	1.1100e-003	7.5000e-004	7.6500e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.8846	1.8846	5.0000e-005	0.0000	1.8859

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0237	0.2462	0.2564	4.0000e-004		0.0132	0.0132		0.0121	0.0121	0.0000	35.0493	35.0493	0.0113	0.0000	35.3327
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0237	0.2462	0.2564	4.0000e-004		0.0132	0.0132		0.0121	0.0121	0.0000	35.0493	35.0493	0.0113	0.0000	35.3327

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3.6 Paving - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1100e-003	7.5000e-004	7.6500e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.8846	1.8846	5.0000e-005	0.0000	1.8859
Total	1.1100e-003	7.5000e-004	7.6500e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.8846	1.8846	5.0000e-005	0.0000	1.8859

3.7 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2400e-003	0.0295	0.0321	5.0000e-005		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	4.4682	4.4682	3.5000e-004	0.0000	4.4768
Total	1.3558	0.0295	0.0321	5.0000e-005		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	4.4682	4.4682	3.5000e-004	0.0000	4.4768

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3.7 Architectural Coating - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	3.0000e-004	3.0600e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7538	0.7538	2.0000e-005	0.0000	0.7544
Total	4.4000e-004	3.0000e-004	3.0600e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7538	0.7538	2.0000e-005	0.0000	0.7544

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3516					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2400e-003	0.0295	0.0321	5.0000e-005		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	4.4682	4.4682	3.5000e-004	0.0000	4.4768
Total	1.3558	0.0295	0.0321	5.0000e-005		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	4.4682	4.4682	3.5000e-004	0.0000	4.4768

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3.7 Architectural Coating - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	3.0000e-004	3.0600e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7538	0.7538	2.0000e-005	0.0000	0.7544
Total	4.4000e-004	3.0000e-004	3.0600e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7538	0.7538	2.0000e-005	0.0000	0.7544

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3447	3.5148	3.6012	0.0145	0.8356	0.0195	0.8551	0.2249	0.0185	0.2433	0.0000	1,346.9018	1,346.9018	0.0947	0.0000	1,349.2685
Unmitigated	0.3447	3.5148	3.6012	0.0145	0.8356	0.0195	0.8551	0.2249	0.0185	0.2433	0.0000	1,346.9018	1,346.9018	0.0947	0.0000	1,349.2685

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	761.60	792.80	689.60	2,190,087	2,190,087
Total	761.60	792.80	689.60	2,190,087	2,190,087

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.492402	0.034496	0.167383	0.136948	0.023406	0.006040	0.021602	0.106741	0.001802	0.001770	0.005495	0.001006	0.000911

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0113	0.0964	0.0410	6.2000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.6168	111.6168	2.1400e-003	2.0500e-003	112.2801
NaturalGas Unmitigated	0.0113	0.0964	0.0410	6.2000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.6168	111.6168	2.1400e-003	2.0500e-003	112.2801

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	2.09162e+006	0.0113	0.0964	0.0410	6.2000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.6168	111.6168	2.1400e-003	2.0500e-003	112.2801
Total		0.0113	0.0964	0.0410	6.2000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.6168	111.6168	2.1400e-003	2.0500e-003	112.2801

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	2.09162e+006	0.0113	0.0964	0.0410	6.2000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.6168	111.6168	2.1400e-003	2.0500e-003	112.2801
Total		0.0113	0.0964	0.0410	6.2000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.6168	111.6168	2.1400e-003	2.0500e-003	112.2801

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	700859	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	700859	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7193	0.0368	0.6097	2.2000e-004		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	35.6269	35.6269	1.6200e-003	6.4000e-004	35.8567
Unmitigated	0.7193	0.0368	0.6097	2.2000e-004		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	35.6269	35.6269	1.6200e-003	6.4000e-004	35.8567

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.5000e-003	0.0299	0.0127	1.9000e-004		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	34.6566	34.6566	6.6000e-004	6.4000e-004	34.8625
Landscaping	0.0183	6.9100e-003	0.5970	3.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	0.9703	0.9703	9.5000e-004	0.0000	0.9941
Total	0.7193	0.0368	0.6097	2.2000e-004		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	35.6269	35.6269	1.6100e-003	6.4000e-004	35.8567

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1352					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.5000e-003	0.0299	0.0127	1.9000e-004		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	34.6566	34.6566	6.6000e-004	6.4000e-004	34.8625
Landscaping	0.0183	6.9100e-003	0.5970	3.0000e-005		3.2700e-003	3.2700e-003		3.2700e-003	3.2700e-003	0.0000	0.9703	0.9703	9.5000e-004	0.0000	0.9941
Total	0.7193	0.0368	0.6097	2.2000e-004		5.6900e-003	5.6900e-003		5.6900e-003	5.6900e-003	0.0000	35.6269	35.6269	1.6100e-003	6.4000e-004	35.8567

7.0 Water Detail**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.6536	0.1698	4.0100e-003	7.0948
Unmitigated	1.6536	0.1698	4.0100e-003	7.0948

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.21232 / 3.28603	1.6536	0.1698	4.0100e-003	7.0948
Total		1.6536	0.1698	4.0100e-003	7.0948

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	5.21232 / 3.28603	1.6536	0.1698	4.0100e-003	7.0948
Total		1.6536	0.1698	4.0100e-003	7.0948

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.3999	1.1465	0.0000	48.0623
Unmitigated	19.3999	1.1465	0.0000	48.0623

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	95.57	19.3999	1.1465	0.0000	48.0623
Total		19.3999	1.1465	0.0000	48.0623

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	95.57	19.3999	1.1465	0.0000	48.0623
Total		19.3999	1.1465	0.0000	48.0623

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Appendix B

Biological Database Files



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Porterville (3611911) OR Cairns Corner (3611922) OR Lindsay (3611921) OR Frazier Valley (3611828) OR Woodville (3611912) OR Success Dam (3611818) OR Sausalito School (3511982) OR Ducor (3511981) OR Fountain Springs (3511888))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
<i>Anniella pulchra</i> northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Atriplex cordulata</i> var. <i>erecticaulis</i> Earlimart orache	PDCHE042V0	None	None	G3T1	S1	1B.2
<i>Atriplex coronata</i> var. <i>vallicola</i> Lost Hills crownscale	PDCHE04250	None	None	G4T2	S2	1B.2
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Atriplex minuscule</i> lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
<i>Atriplex persistens</i> vernal pool smallscale	PDCHE042P0	None	None	G2	S2	1B.2
<i>Atriplex subtilis</i> subtle orache	PDCHE042T0	None	None	G1	S1	1B.2
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Caulanthus californicus</i> California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
<i>Clarkia springvillensis</i> Springville clarkia	PDONA05120	Threatened	Endangered	G2	S2	1B.2
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Delphinium recurvatum</i> recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<i>Diplacus pictus</i> calico monkeyflower	PDSCR1B240	None	None	G2	S2	1B.2



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Dipodomys nitratoideus nitratoideus</i> Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
<i>Eryngium spinosepalum</i> spiny-sepaled button-celery	PDAP10Z0Y0	None	None	G2	S2	1B.2
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<i>Fritillaria striata</i> striped adobe-lily	PMLIL0V0K0	None	Threatened	G2?	S2?	1B.1
<i>Gymnogyps californianus</i> California condor	ABNKA03010	Endangered	Endangered	G1	S1	FP
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Leptosiphon serrulatus</i> Madera leptosiphon	PDPLM09130	None	None	G3	S3	1B.2
<i>Lytta hoppingi</i> Hopping's blister beetle	IICOL4C010	None	None	G1G2	S1S2	
<i>Lytta molesta</i> molestan blister beetle	IICOL4C030	None	None	G2	S2	
<i>Lytta morrisoni</i> Morrison's blister beetle	IICOL4C040	None	None	G1G2	S1S2	
<i>Monolopia congdonii</i> San Joaquin woollythreads	PDASTA8010	Endangered	None	G2	S2	1B.2
<i>Northern Claypan Vernal Pool</i> Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
<i>Perognathus inornatus</i> San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
<i>Pseudobahia peirsonii</i> San Joaquin adobe sunburst	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Sidalcea keckii</i> Keck's checkerbloom	PDMAL110D0	Endangered	None	G2	S2	1B.1
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<i>Sycamore Alluvial Woodland</i> Sycamore Alluvial Woodland	CTT62100CA	None	None	G1	S1.1	
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 40

Appendix C

Cultural Survey Report

**CLASS III INVENTORY/PHASE I SURVEY,
WINDSOR COURT HOUSING PROJECT,
PORTERVILLE, TULARE COUNTY, CALIFORNIA**

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March 2018

PN 29640

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MANAGEMENT SUMMARY

An intensive Class III cultural resources inventory/Phase I survey was conducted for the Windsor Court Housing Project, Porterville, Tulare County, California. The Project is located in west Porterville, in Section 20 (T21S/R27E; MDBM). ASM Affiliates, Inc., conducted this study, with David S. Whitley, Ph.D., RPA, serving as principal investigator. The study was undertaken to assist with compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and the California Environmental Quality Act. The Project horizontal area of potential effect (APE) consists of the approximate 17-acres limits of the Project; the vertical APE is the maximum limit of ground surface excavation, estimated at 6-feet.

A records search of site files and maps was conducted at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. A Sacred Lands File Request was also submitted to the Native American Heritage Commission (NAHC). These investigations determined that the Project APE had not been previously surveyed and that no sites or tribal cultural resources were known to exist within it.

The Class III inventory/Phase I survey fieldwork was conducted in February 2018 with parallel transects spaced at 15-meter intervals walked along the approximately 17-acre study area. No historical resources or properties of any kind were discovered within the project area. Based on these results, the Windsor Court Housing Project does not have the potential to result in significant impacts or adverse effects to historical resources or historic properties, and no additional archaeological work is recommended.

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1. INTRODUCTION AND REGULATORY CONTEXT

ASM Affiliates, Inc., was retained by the Provost and Pritchard Consulting Group to conduct an intensive Class III inventory/Phase I cultural resources survey for the Windsor Court Housing Project. This is located in Porterville, Tulare County, California (Figure 1). The study was undertaken to assist with compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the California Environmental Protection Act (CEQA). The investigation was conducted, specifically, to ensure that significant impacts or adverse effects to historical resources or historic properties do not occur as a result of project construction.

This current study included:

- A background records search and literature review to determine if any known cultural resources were present in the project zone and/or whether the area had been previously and systematically studied by archaeologists;
- An on-foot, intensive inventory of the study area to identify and record previously undiscovered cultural resources and to examine known sites; and
- A preliminary assessment of any such resources found within the subject property.

David S. Whitley, Ph.D., RPA, served as principal investigator and Robert Azpitarte, B.A., ASM Associate Archaeologist, conducted the fieldwork.

This document constitutes a report on the Class III inventory/Phase I survey. Subsequent chapters provide background to the investigation, including historic context studies; the findings of the archival records search; Native American outreach; a summary of the field surveying techniques employed; and the results of the fieldwork. We conclude with management recommendations for the study area.

1.1 PROJECT LOCATION

The project area consists of an approximately 17-acre (ac) parcel located in western Porterville, with Henderson Avenue to the south, the Porter Slough to the north, and the Friant – Kern Canal roughly one-quarter mile west. This places the project area on the open flats of the San Joaquin Valley. Elevation within the project area, which is flat, is approximately 410-ft above mean sea level (amsl). This location is currently undeveloped former agricultural land. Suburban housing developments and some open land surround the proposed project location.

1.2 PROJECT DESCRIPTION AND APE

The proposed project consists of the construction of 80 single family residences within an approximately 17-acres property. This will require the construction of housing units, utility infrastructure, and roadways within the development, including Theta Avenue to the north; Creekview Street to the west; Elderwood Street to the east; and McComb Avenue and Redondo Street internal to the project. The Area of Potential Effect (APE) will contain all construction, staging, and lay-down areas for the project. The horizontal APE consists of the 17-acres property,

direct access to which is provided by existing Henderson Avenue. The vertical APE, estimated at 6-feet, is the maximum depth of excavation for foundations, footings and underground utilities.

1.3 REGULATORY CONTEXT

1.3.1 CEQA

CEQA is applicable to discretionary actions by state or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources. Significant impacts under CEQA occur when “historically significant” or “unique” cultural resources are adversely affected, which occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal NRHP criteria (below) for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC § 5024.1, Title 14 CCR, Section 4852 and § 15064.5(a)(3)).

Significant cultural resources are those archaeological resources and historical properties that:

- (A) Are associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- (B) Are associated with the lives of persons important in our past;
- (C) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- (D) Have yielded, or may be likely to yield, information important in prehistory or history.

Unique resources under CEQA, in slight contrast, are those that represent:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating adverse impacts to significant or unique cultural resources.

1.3.2 NHPA Section 106

NHPA Section 106 is applicable to federal undertakings, including projects financed or permitted by federal agencies regardless of whether the activities occur on federally managed or privately

owned land. Its purpose is to determine whether adverse effects will occur to significant cultural resources, defined as “historical properties” that are listed in or determined eligible for listing in the National Register of Historic Places (NRHP). The criteria for NRHP eligibility are defined at 36 CFR § 60.4 as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

- (A) are associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) are associated with the lives of persons significant in our past; or
- (C) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) have yielded or may be likely to yield, information important in prehistory or history.

There are, however, restrictions on the kinds of historical properties that can be NRHP listed. These have been identified by the Advisory Council on Historic Preservation (ACHP), as follows:

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- (a) A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- (b) A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- (c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life.
- (d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- (e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

- (f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- (g) A property achieving significance within the past 50 years if it is of exceptional importance.
(<http://www.achp.gov/nrcriteria.html>)

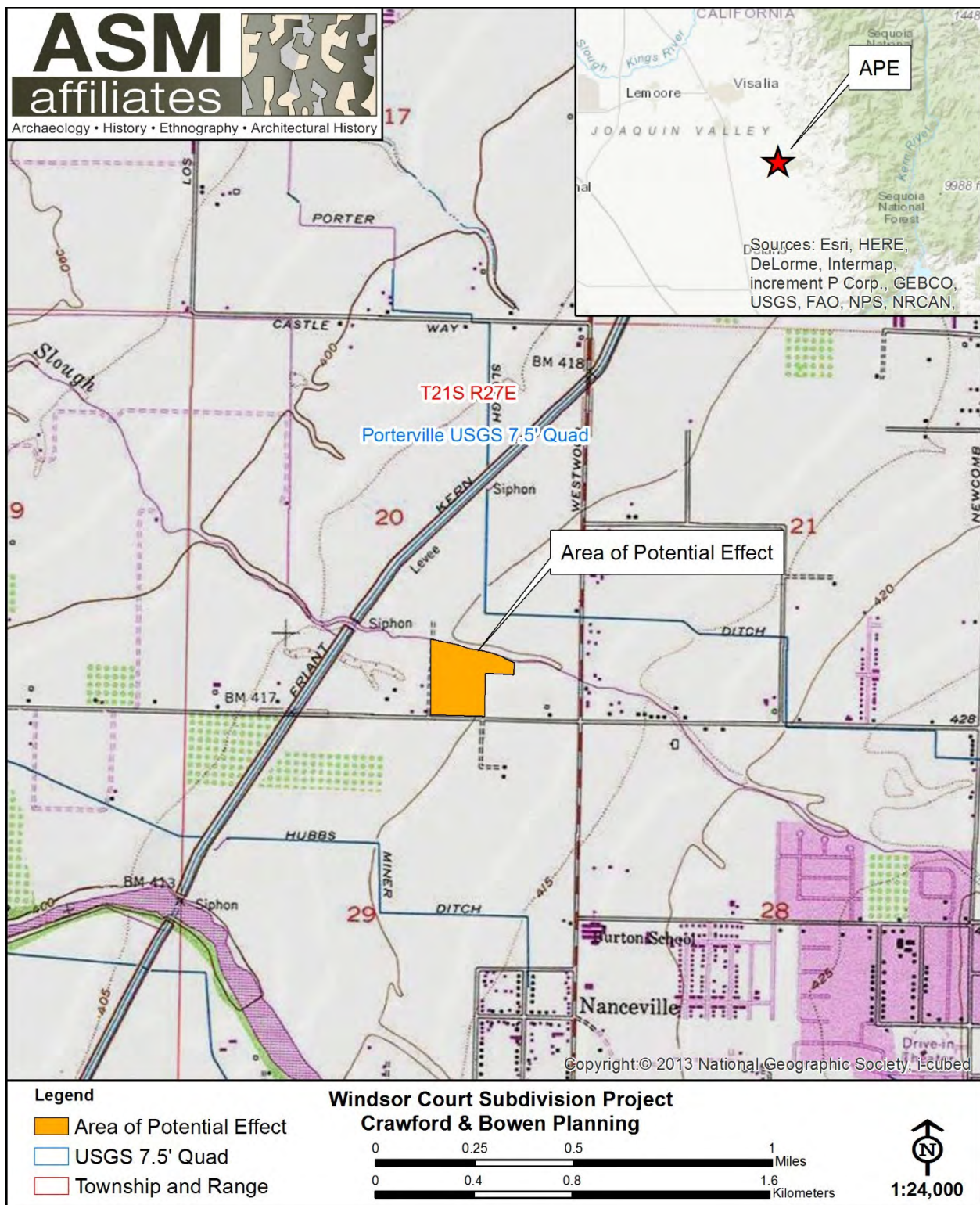


Figure 1. Location of the Windsor Court Housing Project, Tulare County, California

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2. ENVIRONMENTAL AND CULTURAL BACKGROUND

2.1 ENVIRONMENTAL BACKGROUND AND GEOARCHAEOLOGICAL SENSITIVITY

As noted above, the study area is located at about 410-foot elevation on the open flats of the San Joaquin Valley, west of the City of Porterville. The study area is situated approximately one mile north of the Tule River. This river is perennial only above Porterville, north of the study area, with seasonal flow occurring in drainages below that point.

Prior to the appearance of agriculture, starting in the nineteenth century, this location would have been prairie grasslands, grading into tree savannas in the foothills to the east (Preston 1981). Historically, and likely prehistorically, riparian environments would have been present along the drainages, waterways and marshes. The study area and immediate surroundings have been farmed and grazed for many years and no native vegetation is present. Perennial bunchgrasses such as purple needlegrass and nodding needlegrass most likely would have been the dominant plant cover in the study area prior to cultivation.

The study area falls on the Tule River Fan. According to the geoarchaeological model developed by Meyer et al. (2010), the study area has a very low potential for buried archaeological deposits. Buried sites and cultural resources are therefore considered to be unlikely within the Project APE.

2.2 ETHNOGRAPHIC BACKGROUND

Penutian-speaking Yokuts tribal groups occupied the southern San Joaquin Valley region and much of the nearby Sierra Nevada. Ethnographic information about the Yokuts was collected primarily by Powers (1971, 1976 [originally 1877]), Kroeber (1925), Gayton (1930, 1948), Driver (1937), Latta (1977) and Harrington (n.d.). For a variety of historical reasons, existing research information emphasizes the central Yokuts tribes who occupied both the valley and particularly the foothills of the Sierra. The northernmost tribes suffered from the influx of Euro-Americans during the Gold Rush and their populations were in substantial decline by the time ethnographic studies began in the early twentieth century. In contrast, the southernmost tribes were partially removed by the Spanish to missions and eventually absorbed into multi-tribal communities on the Sebastian Indian Reservation (on Tejon Ranch), and later the Tule River Reservation and Santa Rosa Rancheria to the north. The result is an unfortunate scarcity of ethnographic detail on southern Valley tribes, especially in relation to the rich information collected from the central foothills tribes where native speakers of the Yokuts dialects are still found. Regardless, the general details of indigenous life-ways were similar across the broad expanse of Yokuts territory, particularly in terms of environmentally influenced subsistence and adaptation and with regard to religion and belief, which were similar everywhere.

Following Kroeber (1925: Plate 47), the study area most likely lies in Koyote Yokuts territory. The principal historic village for this group was *Chokowisho*, located on the north bank of the Tule

River, a short distance east of Porterville (Kroeber 1925: Plate 47; Latta 1977:195). No historic villages are recorded for the immediate project area, per se, by Kroeber (1925) or by Latta (1977), however.

The Yokuts settlement pattern was largely consistent, regardless of specific tribe involved. Winter villages were typically located along lakeshores and major stream courses (as these existed circa AD 1800), with dispersal phase family camps located at elevated spots on the valley floor and near gathering areas in the foothills.

Most Yokuts groups, again regardless of specific tribal affiliation, were organized as a recognized and distinct tribelet; a circumstance that almost certainly pertained to the tribal groups noted above. Tribelets were land-owning groups organized around a central village and linked by shared territory and descent from a common ancestor. The population of most tribelets ranged from about 150 to 500 peoples (Kroeber 1925).

Each tribelet was headed by a chief who was assisted by a variety of assistants, the most important of whom was the *winatum*, a herald or messenger and assistant chief. A shaman also served as religious officer. While shamans did not have any direct political authority, as Gayton (1930) has illustrated, they maintained substantial influence within their tribelet.

Shamanism is a religious system common to most Native American tribes. It involves a direct and personal relationship between the individual and the supernatural world enacted by entering a trance or hallucinatory state (usually based on the ingestion of psychotropic plants, such as jimsonweed or more typically native tobacco). Shamans were considered individuals with an unusual degree of supernatural power, serving as healers or curers, diviners, and controllers of natural phenomena (such as rain or thunder). Shamans also produced the rock art of this region, depicting the visions they experienced in vision quests believed to represent their spirit helpers and events in the supernatural realm (Whitley 1992, 2000).

The centrality of shamanism to the religious and spiritual life of the Yokuts was demonstrated by the role of shamans in the yearly ceremonial round. The ritual round, performed the same each year, started in the spring with the jimsonweed ceremony, followed by rattlesnake dance and (where appropriate) first salmon ceremony. After returning from seed camps, fall rituals began in the late summer with the mourning ceremony, followed by first seed and acorn rites and then bear dance (Gayton 1930:379). In each case, shamans served as ceremonial officials responsible for specific dances involving a display of their supernatural powers (Kroeber 1925).

Subsistence practices varied from tribelet to tribelet based on the environment of residence. Throughout Native California, and Yokuts territory in general, the acorn was a primary dietary component, along with a variety of gathered seeds. Valley tribes augmented this resource with lacustrine and riverine foods, especially fish and wildfowl. As with many Native California tribes, the settlement and subsistence rounds included the winter aggregation into a few large villages, where stored resources (like acorns) served as staples, followed by dispersal into smaller camps, often occupied by extended families, where seasonally available resources would be gathered and consumed.

Although population estimates vary and population size was greatly affected by the introduction of Euro-American diseases and social disruption, the Yokuts were one of the largest, most successful groups in Native California. Cook (1978) estimates that the Yokuts region contained 27 percent of the aboriginal population in the state at the time of contact; other estimates are even higher. Many Yokuts people continue to reside in the southern San Joaquin Valley today.

2.3 PRE-CONTACT ARCHAEOLOGICAL BACKGROUND

The southern San Joaquin Valley region has received minimal archaeological attention compared to other areas of the state. In part, this is because the majority of California archaeological work has concentrated in the Sacramento Delta, Santa Barbara Channel, and central Mojave Desert areas (see Moratto 1984). Although knowledge of the region's prehistory is limited, enough is known to determine that the archaeological record is broadly similar to south-central California as a whole (see Gifford and Schenk 1926; Hewes 1941; Wedel 1941; Fenenga 1952; Elsasser 1962; Fredrickson and Grossman 1977; Schiffman and Garfinkel 1981). Based on these sources, the general prehistory of the region can be outlined as follows.

Initial occupation of the region occurred at least as early as the *Paleoindian Period*, or prior to about 10,000 years before present (YBP). Evidence of early use of the region is indicated by characteristic fluted and stemmed points found around the margin of Tulare Lake, in the foothills of the Sierra, and in the Mojave Desert proper.

Both fluted and stemmed points are particularly common around lake margins, suggesting a terminal Pleistocene/early Holocene lakeshore adaptation similar to that found throughout the far west at the same time; little else is known about these earliest peoples. Over 250 fluted points have been recovered from the Witt Site (CA-KIN-32), located along the western shoreline of ancient Tulare Lake north of the study area, demonstrating the importance of this early occupation in the San Joaquin Valley specifically (see Fenenga 1993). Additional finds consist of a Clovis-like projectile point discovered in a flash-flood cut-bank near White Oak Lodge in 1953 on Tejon Ranch (Glennan 1987a, 1987b). More recently, a similar fluted point was found near Bakersfield (Zimmerman et al. 1989), and a number are known from the Edwards Air Force Base and Boron area of the western Mojave Desert. Although human occupation of the state is well-established during the Late Pleistocene, relatively little can be inferred about the nature and distribution of this occupation with a few exceptions. First, little evidence exists to support the idea that people at that time were big-game hunters, similar to those found on the Great Plains. Second, the western Mojave Desert evidence suggests small, very mobile populations that left a minimal archaeological signature. The evidence from the ancient Tulare Lake shore, in contrast, suggests much more substantial population and settlements which, instead of relying on big game hunting, were tied to the lacustrine lake edge. Variability in subsistence and settlement patterns is thus apparent in California, in contrast to the Great Plains.

Substantial evidence for human occupation across California, however, first occurs during the middle Holocene, roughly 7,500 to 4,000 YBP. This period is known as the *Early Horizon*, or alternatively as the Early Millingstone along the Santa Barbara Channel. In the south, populations concentrated along the coast with minimal visible use of inland areas. Adaptation emphasized hard seeds and nuts with tool-kits dominated by mullers and grindstones (manos and metates).

Additionally, little evidence for Early Horizon occupation exists in most inland portions of the state, partly due to a severe cold and dry paleoclimatic period occurring at this time, although a site deposit dating to this age has been identified along the ancient Buena Vista shoreline in Kern County to the south (Rosenthal et al. 2007). Regardless of specifics, Early Horizon population density was low with a subsistence adaptation more likely tied to plant food gathering than hunting.

Environmental conditions improved dramatically after about 4,000 YBP during the *Middle Horizon* (or Intermediate Period). This period is known climatically as the Holocene Maximum (circa 3,800 YBP) and was characterized by significantly warmer and wetter conditions than previously experienced. It was marked archaeologically by large population increase and radiation into new environments along coastal and interior south-central California and the Mojave Desert (Whitley 2000). In the Delta region to the north, this same period of favorable environmental conditions was characterized by the appearance of the Windmill culture which exhibited a high degree of ritual elaboration (especially in burial practices) and perhaps even a rudimentary mound-building tradition (Meighan, personal communication, 1985). Along with ritual elaboration, Middle Horizon times experienced increasing subsistence specialization, perhaps correlating with the appearance of acorn processing technology. Penutian speaking peoples (including the Yokuts) are also posited to have entered the state roughly at the beginning of this period and, perhaps to have brought this technology with them (cf. Moratto 1984). Likewise, it appears the so-called "Shoshonean Wedge" in southern California, the Takic speaking groups that include the Gabrielino/Fernandeño, Tataviam and Kitanemuk, may have moved into the region at that time (Sutton 2009, rather than at about 1500 YBP as first suggested by Kroeber (1925).

Evidence for Middle Horizon occupation of interior south-central California is substantial. For example, in northern Los Angeles County along the upper Santa Clara River, to the south of the San Joaquin Valley, the Agua Dulce village complex indicates occupation extending back to the Intermediate Period, when the population of the village may have been 50 or more people (King et al n.d.). Similarly, inhabitation of the Hathaway Ranch region near Lake Piru, and the Newhall Ranch near Valencia, appears to date to the Intermediate Period (W & S Consultants 1994). To the west, little or no evidence exists for pre-Middle Horizon occupation in the upper Sisquoc and Cuyama River drainages; populations first appear there at roughly 3,500 YBP (Horne 1981). The Carrizo Plain, the valley immediately west of the San Joaquin, experienced a major population expansion during the Middle Horizon (W & S Consultants 2004; Whitley et al. 2007), and recently collected data indicates the Tehachapi Mountains region was first significantly occupied during the Middle Horizon (W & S Consultants 2006). A parallel can be drawn to the inland Ventura County region where a similar pattern has been identified (Whitley and Beaudry 1991), as well as the western Mojave Desert (Sutton 1988a, 1988b), the southern Sierra Nevada (W & S Consultants 1999), and the Coso Range region (Whitley et al. 1988). In all of these areas a major expansion in settlement, the establishment of large site complexes and an increase in the range of environments exploited appear to have occurred sometime roughly around 4,000 years ago. Although most efforts to explain this expansion have focused on local circumstances and events, it is increasingly apparent this was a major southern California-wide occurrence and any explanation must be sought at a larger level of analysis (Whitley 2000). Additionally, evidence from the Carrizo Plain suggests the origins of the tribelet level of political organization developed during this period (W & S Consultants 2004; Whitley et al. 2007). Whether this same demographic process holds for the southern San Joaquin Valley, including the study area, is yet to be determined.

The beginning of the *Late Horizon* is set variously at 1,500 and 800 YBP, with a growing archaeological consensus for the shorter chronology. Increasing evidence suggests the importance of the Middle-Late Horizons transition (AD 800 to 1200) in the understanding of south-central California prehistory. This corresponds to the so-called Medieval Climatic Anomaly, followed by the Little Ice Age, and this general period of climatic instability extended to about A.D. 1860. It included major droughts matched by intermittent “mega-floods,” and resulted in demographic disturbances across much of the west (Jones et al. 1999). It is believed to have resulted in major population decline and abandonments across south-central California, involving as much as 90% of the interior populations in some regions, including the Carrizo Plain (Whitley et al. 2007). It is not clear whether site abandonment was accompanied by a true reduction in population or an agglomeration of the same numbers of peoples into fewer but larger villages in more favorable locations. Population along the Santa Barbara coast appears to have spiked at about the same time that it collapsed on the Carrizo Plain (ibid). Along Buena Vista Lake, in Kern County, population appears to have been increasingly concentrated towards the later end of the Medieval Climatic Anomaly (Culleton 2006), and population intensification also appears to have occurred in the well-watered Tehachapi Mountains during this same period (W & S Consultants 2006).

What is then clear is that Middle Period villages and settlements were widely dispersed across the south-central California landscape, including in the Sierras and the Mojave Desert. Many of these sites are found at locations that lack existing or known historical fresh water sources. Late Horizon sites, in contrast, are typically concentrated in areas where fresh water was available during the historical period, if not currently.

One extensively studied site that shows evidence of intensive occupation during the Middle-Late Horizons transition (~1,500 – 500 YBP) is the Redtfeldt Mound (CA-KIN-66/H), located northwest of the current study area, near the north shore of ancient Tulare Lake. There, Siefkin (1999) reported on human burials and a host of artifacts and ecofacts excavated from a modest-sized mound. He found that both Middle Horizon and Middle-Late Horizons transition occupations were more intensive than Late Horizon occupations, which were sporadic and less intensive (Siefkin 1999:110-111).

The Late Horizon can then be understood as a period of recovery from a major demographic collapse. One result is the development of regional archaeological cultures as the precursors to ethnographic Native California; suggesting that ethnographic life-ways recorded by anthropologists extend roughly 800 years into the past.

The position of southern San Joaquin Valley prehistory relative to patterns seen in surrounding areas is still somewhat unknown. The presence of large lake systems in the valley bottoms appears to have mediated some of the desiccation seen elsewhere. But, as the reconstruction of Soda Lake in the nearby Carrizo Plain demonstrates (see Whitley et al. 2007) environmental perturbations had serious impacts on lake systems too. Identifying certain of the prehistoric demographic trends for the southern San Joaquin Valley, and determining how these trends (if present) correlate with those seen elsewhere, is a current important research objective.

2.4 HISTORICAL BACKGROUND

Spanish explorers first visited the San Joaquin Valley in 1772, but its lengthy distance from the missions and presidios along the Pacific Coast delayed permanent settlement for many years, including during the Mexican period of control over the Californian region. In the 1840s, Mexican rancho owners along the Pacific Coast allowed their cattle to wander and graze in the San Joaquin Valley (JRP Historical Consulting 2009). The Mexican government granted the first ranchos in the southern part of the San Joaquin Valley in the early 1840s, but these did not result in permanent settlement. It was not until the annexation of California in 1848 that the exploitation of the southern San Joaquin Valley began (Pacific Legacy 2006).

The discovery of gold in northern California in 1848 resulted in a dramatic increase of population, consisting in good part of fortune seekers and gold miners, who began to scour other parts of the state. After 1851, when gold was discovered in the Sierra Nevada Mountains in eastern Kern County, the population of the area grew rapidly. Some new immigrants began ranching in the San Joaquin Valley to supply the miners and mining towns. Ranchers grazed cattle and sheep, and farmers dry-farmed or used limited irrigation to grow grain crops, leading to the creation of small agricultural communities throughout the valley (JRP Historical Consulting 2009).

After the American annexation of California, the southern San Joaquin Valley became significant as a center of food production for this new influx of people in California. The expansive unfenced and principally public foothill spaces were well suited for grazing both sheep and cattle (Boyd 1997). As the Sierra Nevada gold rush presented extensive financial opportunities, ranchers introduced new breeds of livestock, consisting of cattle, sheep and pig (Boyd 1997).

With the increase of ranching in the southern San Joaquin came the dramatic change in the landscape, as non-native grasses more beneficial for grazing and pasture replaced native flora (Preston 1981). After the passing of the Arkansas Act in 1850, efforts were made to reclaim small tracts of land in order to create more usable spaces for ranching. Eventually, as farming supplanted ranching as a more profitable enterprise, large tracts of land began to be reclaimed for agricultural use, aided in part by the extension of the railroad in the 1870s (Pacific Legacy 2006).

Following the passage of state wide ‘No-Fence’ laws in 1874, ranching practices began to decline, while farming expanded in the San Joaquin Valley in both large land holdings and smaller, subdivided properties. As the farming population grew, so did the demand for irrigation. Settlers began reclamation of swampland in 1866, and built small dams across the Kern River to divert water into the fields. By 1880, 86 different groups were taking water from the Kern River. Ten years later, 15 major canals provided water to thousands of acres in Kern County.

During the period of reclaiming unproductive land in the southern San Joaquin Valley, grants were given to individuals who had both the resources and the finances to undertake the operation alone. One small agricultural settlement, founded by Colonel Thomas Baker in 1861 after procuring one such grant, took advantage of reclaimed swampland along the Kern River. This settlement became the City of Bakersfield in 1869, and quickly became the center of activity in the southern San Joaquin Valley, and in the newly formed Kern County. Located on the main stage road through the San Joaquin Valley, the town became a primary market and transportation hub for stock and

crops, as well as a popular stopping point for travelers on the Los Angeles and Stockton Road. The Southern Pacific Railroad reached the Bakersfield area in 1873, connecting it with important market towns elsewhere in the state, dramatically impacting both agriculture and oil production (Pacific Legacy 2006).

Three competing partnerships developed during this period which had a great impact on control of water, land reclamation and ultimately agricultural development in the San Joaquin Valley: Livermore and Chester, Haggin and Carr, and Miller and Lux, perhaps the most famous of the enterprises. Livermore and Chester were responsible, among other things, for developing the large Hollister plow (three feet wide by two feet deep), pulled by a 40-mule team, which was used for ditch digging. Haggin and Carr were largely responsible for reclaiming the beds of the Buena Vista and Kern lakes, and for creating the Calloway Canal, which drained through the Rosedale area in Bakersfield to Goose Lake (Morgan 1914). Miller and Lux ultimately became one of the biggest private property holders in the country, controlling the rights to over 22,000 square miles. Miller and Lux's impact extended beyond Kern County, however. They recognized early-on that control of water would have important economic implications, and they played a major role in the water development of the state. They controlled, for example, over 100 miles of the San Joaquin River with the San Joaquin and Kings River Canal and Irrigation System. They were also embroiled for many years in litigation against Haggin and Carr over control of the water rights to the Kern River. Descendants of Henry Miller continue to play a major role in California water rights, with his great grandson, George Nickel, Jr., the first to develop the concept of water banking, thus creating a system to buy and sell water (<http://exiledonline.com/california-class-war-history-meet-the-oligarch-family-thats-been-scamming-taxpayers-for-150-years-and-counting/>).

The San Joaquin Valley was dominated by agricultural pursuits until the oil boom of the early 1900s, which saw a shift in the region, as some reclaimed lands previously used for farming were leased to oil companies. Nonetheless, the shift of the San Joaquin Valley towards oil production did not halt the continued growth of agriculture (Pacific Legacy 2006). The Great Depression of the 1930s brought with it the arrival of great number of migrants from the drought-affected Dust Bowl region, looking for agricultural labor. These migrants established temporary camps in the valley, staying on long past the end of the drought and the Great Depression, eventually settling in towns such as Bakersfield where their descendants live today (Boyd 1997).

The town of Porterville, which is located east of the Project APE, was founded in 1854. It initially served as a stop for the Butterfield Overland Mail stage route which ran from Los Angeles to Stockton. Originally called the Tule River Station, it became known as Porterville in 1864, a name based on the middle name of Royal Porter Putnam who owned the area at the stage stop. It first saw development in the late 19th century with the extension of the Southern Pacific Railway branch line from Fresno in 1888. In 1902 the town was incorporated, the Chamber of Commerce was formed in 1907, and a Charter was adopted from a City Manager-Council form of government in 1926. A USGS Porterville (1929, 1:31,680) topographic quadrangle indicates the town had developed to over half of its modern day size (excluding East Porterville) shortly after the adoption of the Charter. The town has continued to grow due to industry and agriculture in the surrounding area (ibid.).

2.5 RESEARCH DESIGN

2.5.1 Pre-Contact Archaeology

Previous research and the nature of the pre-contact archaeological record suggest two significant NRHP themes, both of which fall under the general Pre-Contact Archaeology area of significance. These are the Expansion of Pre-Contact Populations and Their Adaptation to New Environments; and Adaptation to Changing Environmental Conditions.

The Expansion of Pre-Contact Populations and Their Adaptation to New Environments theme primarily concerns the Middle Horizon/Holocene Maximum. Its period of significance runs from about 4,000 to 1,500 YBP. It involves a period during which the prehistoric population appears to have expanded into a variety of new regions, developing new adaptive strategies in the process.

The Adaptation to Changing Environmental Conditions theme is partly related to the Holocene Maximum, but especially to the Medieval Climatic Anomaly. The period of significance for this theme, accordingly, extends from about 4,000 to 800 YBP. This theme involves the apparent collapse of many inland populations, presumably with population movements to better environments such as the coast. It is not yet known whether the southern San Joaquin Valley, with its system of lakes, sloughs and swamps, experienced population decline or, more likely, population increase due to the relatively favorable conditions of this region during this period of environmental stress.

The range of site types that are present in this region include:

- Villages, primarily located on or near permanent water sources, occupied by large groups during the winter aggregation season;
- Seasonal camps, again typically located at water sources, occupied during other parts of the year tied to locally and seasonally available food sources;
- Special activity areas, especially plant processing locations containing bedrock mortars (BRMs), commonly (though not exclusively) near existing oak woodlands, and invariably at bedrock outcrops or exposed boulders;
- Stone quarries and tool workshops, occurring in two general contexts: at or below naturally occurring chert exposures on the eastern front of the Temblor Range; and at quartzite cobble exposures, often on hills or ridges;
- Ritual sites, most commonly pictographs (rock art) found at rockshelters or large exposed boulders, and cemeteries, both commonly associated with villages; and
- A variety of small lithic scatters (low density surface scatters of stone tools).

The first requisites in any research design are the definition of site age/chronology and site function. The ability to determine either of these basic kinds of information may vary between survey and test excavation projects, and due to the nature of the sites themselves. BRM sites without associated artifacts, for example, may not be datable beyond the assumption that they post-date the Early Horizon and are thus less than roughly 4,000 years old.

A second fundamental issue involves the place of site in the settlement system, especially with respect to water sources. Because the locations of the water sources have sometimes changed over time, villages and camps are not exclusively associated with existing (or known historical) water sources (W&S Consultants 2006). The size and locations of the region's lakes, sloughs and delta channels, to cite the most obvious example, changed significantly during the last 12,000 years due to major paleoclimatic shifts. This altered the area's hydrology and thus prehistoric settlement patterns. The western shoreline of Tulare Lake was relatively stable, because it abutted the Kettleman Hills. But the northern, southern and eastern shorelines comprised the near-flat valley floor. Relatively minor fluctuations up or down in the lake level resulted in very significant changes in the areal expression of the lake on these three sides, and therefore the locations of villages and camps. Although perhaps not as systematic, similar changes occurred with respect to stream channels and sloughs, and potential site locations associated with them. This circumstance has implications for predicting site locations and archaeological sensitivity. Site sensitivity is then hardest to predict in the open valley floor, where changes in stream courses and lake levels occurred on numerous occasions.

Nonetheless, the position of southern San Joaquin Valley prehistory relative to the changing settlement and demographic patterns seen in surrounding areas is still somewhat unknown (cf. Siefkin 1999), including to the two NRHP themes identified above. The presence of large lake systems in the valley bottoms can be expected to have mediated some of the effects of desiccation seen elsewhere. But, as the reconstruction of Soda Lake in the nearby Carrizo Plain demonstrates (see Whitley et al. 2007), environmental perturbations had serious impacts on lake systems too. Identifying certain of the prehistoric demographic trends for the southern San Joaquin Valley, and determining how these trends (if present) correlate with those seen elsewhere, is another primary regional research objective.

Archaeological sites would primarily be evaluated for NRHP eligibility under Criterion D, research potential.

2.5.2 Historical Archaeology: Native American

Less research has been conducted on the regional historical archaeological record, both Native American and Euro-American. For Native American historical sites, the ethnographic and ethnohistoric periods in the southern San Joaquin Valley extended from first Euro-American contact, in AD 1772, to circa 1900, when tribal populations were first consolidated on reservations. The major significant historic NRHP themes during this period of significance involve the related topics of Historic-Aboriginal Archaeology, and Native American Ethnic Heritage. More specifically, these concern the Adaptation of the Indigenous Population to Euro-American Encroachment and Settlement, and their Acculturation to Western Society. These processes included the impact of missionization on the San Joaquin Valley (circa 1800 to about 1845); the introduction of the horse and the development of a San Joaquin Valley "horse culture," including raiding onto the coast and Los Angeles Basin (after about 1810); the use of the region as a refuge for mission neophyte escapees (after 1820); responses to epidemics from introduced diseases (especially in the 1830s); armed resistance to Euro-American encroachment (in the 1840s and early 1850s); the origins of the reservation system and the development of new tribal organizations and

ethnic identities; and, ultimately, the adoption of the Euro-American society's economic system and subsistence practices, and acculturation into that society.

Site types that have been identified in the region dating to the ethnographic/ethnohistoric period of significance primarily include villages and habitations, some of which contain cemeteries and rock art (including pictographs and cupules). Dispersed farmsteads, dating specifically from the reservation period or post-1853, would also be expected. The different social processes associated with this historical theme may be manifest in the material cultural record in terms of changing settlement patterns and village organization (from traditional nucleated villages to single family dispersed farmsteads); the breakdown of traditional trading networks with their replacement by new economic relationships; changing subsistence practices, especially the introduction of agriculture initially via escaped mission neophytes; the use of Euro-American artifacts and materials rather than traditional tools and materials; and, possibly, changing mortuary practices.

Inasmuch as culture change is a primary intellectual interest in archaeology, ethnographic villages and habitations may be NRHP eligible under Criterion D, research potential. Rock art sites, especially pictographs, may be eligible under Criterion C as examples of artistic mastery. They may also be eligible under Criterion A, association with events contributing to broad patterns of history. Ethnographic sites, further, may be NRHP eligible as Traditional Cultural Properties due to potential continued connections to tribal descendants, and their resulting importance in traditional practices and beliefs, including their significance for historical memory, tribal- and self-identity formation, and tribal education.

For Criteria A, C and D, eligibility requires site integrity (including the ability to convey historical association for Criterion A). These may include intact archaeological deposits for Criterion D, as well as setting and feel for Criteria C and A. Historical properties may lack physical integrity, as normally understood in heritage management, but still retain their significance to Native American tribes as Traditional Cultural Properties if they retain their tribal associations and uses.

2.5.3 Historical Archaeology: Euro-American

Approaches to historical Euro-American archaeological research relevant to the region have been summarized by Caltrans (1999, 2000, 2007, 2008). These concern the general topics of historical landscapes, agriculture and farming, irrigation (water conveyance systems), and mining. Caltrans has also identified an evaluation matrix aiding determinations of eligibility. The identified research issues include site structure and land-use (lay-out, land use, feature function); economics (self-sufficiency, consumer behavior, wealth indicators); technology and science (innovations, methods); ethnicity and cultural diversity (religion, race); household composition and lifeways (gender, children); and labor relations. Principles useful for determining the research potential of an individual site or feature are conceptualized in terms of the mnemonic AIMS-R, as follows:

1. *Association* refers to the ability to link an assemblage of artifacts, ecofacts, and other cultural remains with an individual household, an ethnic or socioeconomic group, or a specific activity or property use.

2. *Integrity* addresses the physical condition of the deposit, referring to the intact nature of the archaeological remains. In order for a feature to be most useful, it should be in much the same state as when it was deposited. However, even disturbed deposits can yield important information (e.g., a tightly dated deposit with an unequivocal association).

3. *Materials* refers to the number and variety of artifacts present. Large assemblages provide more secure interpretations as there are more datable items to determine when the deposit was made, and the collection will be more representative of the household, or activity. Likewise, the interpretive potential of a deposit is generally increased with the diversity of its contents, although the lack of diversity in certain assemblages also may signal important behavioral or consumer patterns.

4. *Stratigraphy* refers to the vertically or horizontally discrete depositional units that are distinguishable. Remains from an archaeological feature with a complex stratigraphic sequence representative of several events over time can have the added advantage of providing an independent chronological check on artifact diagnosis and the interpretation of the sequence of environmental or sociocultural events.

5. *Rarity* refers to remains linked to household types or activities that are uncommon. Because they are scarce, they may have importance even in cases where they otherwise fail to meet other thresholds of importance (Caltrans 2007:209).

For agricultural sites, Caltrans (2007) has identified six themes to guide research: Site Structure and Land Use Pattern; Economic Strategies; Ethnicity and Cultural Adaptation; Agricultural Technology and Science; Household Composition and Lifeways; and Labor History. Expected site types would include farm and ranch homesteads and facilities, line camps, and refuse dumps. In general terms, historical Euro-American archaeological sites would be evaluated for NRHP eligibility under Criterion D, research potential. However, they also potentially could be eligible under Criteria A and B for their associate values with major historical trends or individuals. Historical landscapes might also be considered.

Historical structures, which are most likely to be pertinent to the current study area, are typically evaluated for NRHP eligibility under Criteria A and/or B, for their associate values with major historical trends or individuals, and C for potential design or engineering importance.

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3. ARCHIVAL RECORDS SEARCH

3.1 ARCHIVAL RECORDS SEARCH

In order to determine whether the study area had been previously surveyed for cultural resources, and/or whether any such resources were known to exist on any of them, an archival records search was conducted by the staff of the Southern San Joaquin Valley Information Center (IC) on 29 August 2017. The records search was completed to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the study areas; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest.

According to the IC, one linear survey (TU-00102; Woodward-Clyde Consultants 1995) had been conducted within the Project APE. This covered the southern boundary of the proposed Windsor-Court Project Area (approx. 2-acres; See Confidential Appendix A) and no resources were recorded as a result. An additional three surveys (Table 1) had been completed within 0.5-miles of the project area with no resources recorded in the surrounding area.

Table 1. Survey reports within 0.5 miles of the Project Area

Report No.	Year	Author (s)/Affiliation	Title
TU-00209	1978	RJ Cantwell/ Individual Consultant	Archaeological and Historical Survey Report for Sherwood Homes, Western Skies Subdivision, Porterville
TU-00257	1981	RJ Cantwell/ Individual Consultant	Archaeological and Historical Survey Report for the Bridge Over Porter Slough on Road 224 at Avenue 160.79, Tulare County
TU-01566	2009	MA Chotkowski/ Bureau of Reclamation	Section 106 Compliance for the Replacement of Five Block Structures along the Friant-Kern Canal, Fresno and Tulare Counties, California (Project No. 10-SCAO-037)

A records search of the Native American Heritage Commission Sacred Lands Files was also completed. No sacred sites or tribal cultural resources had been reported within or in the vicinity of the Project APE.

Historical USGS topographical quadrangles were examined to determine whether the APE had been developed historically. The USGS 1 : 31,680 quadrangle shows no development in or adjacent to the APE. The 1951 1 : 24,000 quadrangle shows the Friant Kern Canal but no other development. Two structures were built to the east of the APE, along Henderson Avenue, between 1968 and 1971 but, again, no development occurred within the APE.

3. Archival Records Search

Based on the IC and NAHC records searches, and the examination of historical maps, the Project APE appeared to have low archaeological sensitivity.

4. METHODS AND RESULTS

4.1 FIELD METHODS

An intensive Class III inventor/Phase I survey of the Windsor Court Housing Project study area was conducted by Robert Azpitarte, B.A., ASM Associate Archaeologist/Crew Chief, on 23 February 2018. The field methods employed included intensive pedestrian examination of the ground surface for evidence of archaeological sites in the form of artifacts, surface features (such as bedrock mortars, historical mining equipment), and archaeological indicators (e.g., organically enriched midden soil, burnt animal bone); the identification and location of any discovered sites, should they be present; tabulation and recording of surface diagnostic artifacts; site sketch mapping; preliminary evaluation of site integrity; and site recording, following the California Office of Historic Preservation Instructions for Recording Historic Resources, using DPR 523 forms. Parallel survey transects spaced at 15-m apart were employed for the inventory. These covered the entirety of the approximately 17-ac APE.

4.2 SURVEY RESULTS

The Project APE is open flat land surrounded by housing developments and additional farm/open land. The APE had been recently disked (Figure 2), and ground surface visibility was excellent.

No cultural resources of any kind were identified within the Windsor Court Project APE.



Figure 2. Northeast corner of Project APE, looking southwest.

5. SUMMARY AND RECOMMENDATIONS

An intensive Class III archaeological inventory/Phase I survey was conducted for the Windsor Court Housing Project, located west of Porterville, Tulare County, California. A records search was conducted at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. This indicated that the study area had not been previously surveyed and that no cultural resources were known to exist within it. The Native American Heritage Commission Sacred Lands Files were also consulted and no sacred sites or tribal cultural resources were known within or in the vicinity of the APE.

The Phase I survey fieldwork was conducted with parallel transects spaced at 15-meter intervals across the 17-acres Project APE. No cultural resources of any kind are present within the study area

5.1 RECOMMENDATIONS

An intensive Phase I survey/Class III inventory demonstrated that the Windsor Court Housing Project study area lacks cultural resources of any kind. The proposed Project therefore does not have the potential to result in adverse impacts or effects to significant historical resources or historic properties. A finding of no impacts/No Historic Properties Affected is recommended. In the unlikely event that cultural resources are encountered during project construction or use, however, it is recommended that an archaeologist be contacted to assess the discovery.

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CONFIDENTIAL APPENDICES

RESOLUTION NO. ____-2018

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE
CONTAINING FINDINGS IN SUPPORT OF APPROVAL OF A
GENERAL PLAN AMENDMENT (2017-029-G) FOR THE PROPOSED
WINDSOR COURT DEVELOPMENT PROJECT

WHEREAS: The City Council of the City of Porterville at its regularly scheduled meeting of May 15, 2018, conducted a public meeting to consider approval of a General Plan amendment from High Density Residential to Low-Medium Density Residential for the 16.77± acres, located on the north side of Henderson Avenue, approximately midway between the Friant Kern Canal and North Westwood Street (APNs 240-050-033 and 034), as represented in Exhibit A, attached hereto; and

WHEREAS: Zone Change 2017-029-Z proposes to change the present zoning classification of the subject parcels from RM-3 (High Density Residential) to PD (Planned Development), contingent upon approval of the General Plan Amendment; and

WHEREAS: Tentative Subdivision Map 2017-029-S proposes 80 parcels with lots ranging from 4,375 to 9,932 square feet, contingent upon approval of the General Plan Amendment and subsequent Zone Change; and

WHEREAS: Approval of the aforementioned entitlements would further the goals and objectives of the General Plan by providing a compact neighborhood design that provides for efficient use of available land resources and maintains a compact form that is less intrusive, as well as assisting with a mix of housing types to serve the needs of all Porterville residents; and

WHEREAS: On May 15, 2018, the City Council adopted a resolution approving a Mitigated Negative Declaration for the General Plan Amendment, Zone Change and Tentative Subdivision Map in a manner consistent with City codes and plans.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Porterville does hereby make the following findings:

1. The project supports and complies with the following General Plan policies:

- | | |
|--------|--|
| LU-G-1 | Provide for residential development with strong community identities, appropriate and compatible scales of development, identifiable centers and edges and well-defined public spaces for recreation and civic activities. |
| LU-G-2 | Guide new development into compact neighborhoods with a defined, mixed-use center including public open space, a school or other community facilities, and neighborhood commercial. |
| LU-G-4 | Provide sufficient land with appropriate parcel sizes to support a full range of housing types and prices. |

2. The proposed project serves to fulfill the goals of the General Plan as adopted, and the amendment of the land use designation on the subject parcels (APNs 240-050-033 and 240-050-034) does not infringe on the goals of the General Plan to provide sites that relate well to adjacent neighborhood centers and parks.
3. The proposed project includes design features to allocate public open space along Porter Slough for the neighborhood, and provide pedestrian connectivity to the neighborhood and schools to the north.
4. That a Mitigated Negative Declaration was prepared for the project in accordance with the California Environmental Quality Act and was transmitted to interested agencies and made available for public review and comment. The review period ran for thirty (30) days, from April 14, 2018, to May 15, 2018.
5. The City Council is the decision-making body for the project.

BE IT FURTHER RESOLVED: That the City Council does hereby approve the General Plan Amendment from High Density Residential to Low-Medium Density Residential on Assessor Parcel Numbers 240-050-033 and 240-050-034 for the proposed Windsor Court Development Project (PRC 2017-029-G).

PASSED, APPROVED AND ADOPTED this 15st day of May, 2018.

By: Brian Ward, Mayor Pro Tem

ATTEST:
John D. Lollis, City Clerk

By: _____
Patrice Hildreth, Chief Deputy City Clerk



PRC 2017-029
Windsor Court Development Project
General Plan Land Use Map
1" = 400 ft.

ORDINANCE NO. ____-2018

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE
APPROVING ZONE CHANGE (PRC 2017-029-Z) FROM RM-3 (HIGH DENSITY
RESIDENTIAL) TO PD (PLANNED DEVELOPMENT) FOR THE WINDSOR COURT
TENTATIVE SUBDIVISION MAP AND DEVELOPMENT PROJECT LOCATED
GENERALLY ON HENDERSON AVENUE, BETWEEN THE FRIANT KERN CANAL AND
WESTWOOD STREET

WHEREAS: The City Council of the City of Porterville at its regularly scheduled meeting of May 15, 2018, conducted a public hearing to consider findings in support of Zone Change (PRC 2017-029-Z), being a change of zone from RM-3 (High Density Residential) to PD (Planned Development) for the 16.77± parcels located on the north side of Henderson Avenue, midway between the Friant Kern Canal and Westwood Street (APNs 240-050-033 and 240-050-034); and

WHEREAS: The City Council of the City of Porterville determined that the proposed Zone Change (PRC 2018-029) is consistent with the guiding and implementation policies of the adopted 2030 General Plan; and

WHEREAS: On May 15, 2018, the City Council adopted a resolution approving a Mitigated Negative Declaration for the General Plan Amendment, Zone Change and Tentative Subdivision Map in a manner consistent with City codes and plans; and

WHEREAS: On May 15, 2018, the City Council adopted a resolution approving General Plan Amendment 2017-029-G to change the General Plan Land Use of High Density Residential to Low-Medium Density Residential; and

WHEREAS: Tentative Subdivision Map 2017-029-S proposes 80 parcels with lots ranging from 4,375 to 9,932 square feet, contingent upon approval of the General Plan Amendment and Zone Change; and

WHEREAS: The City Council made the following findings that the proposed project will advance the goals and objectives of and is consistent with the policies of the General Plan and any other applicable plan that the City has adopted.

1. The project supports and complies with the following General Plan policies:

LU-G-1	Provide for residential development with strong community identities, appropriate and compatible scales of development, identifiable centers and edges and well-defined public spaces for recreation and civic activities.
LU-G-2	Guide new development into compact neighborhoods with a defined, mixed-use center including public open space, a school or other community facilities, and neighborhood commercial.
LU-G-4	Provide sufficient land with appropriate parcel sizes to support a full range of housing types and prices.

2. The project as proposed is consistent with the following required findings for a Planned Development, would accommodate the atypical configuration of parcels, includes parkway trees, allows passive recreation and includes a pedestrian bridge connecting the project to adjacent neighborhoods and encourages walkability to the school campuses:
 - a. The proposed development is consistent with the General Plan and any applicable specific plan, including the density and intensity limitations that apply;
 - b. The site for the proposed development is adequate in size and shape to accommodate the proposed uses and all setbacks, open spaces, setbacks, walls and fences, parking area, loading areas, landscape, and other features required;
 - c. Adequate transportation facilities and public services exist or will be provided in accord with the conditions of development plan approval, to serve the proposed development; and the approval of the proposed development will not result in a reduction of traffic levels of service or public services so as to be a detriment to public health, safety, or welfare;
 - d. The proposed development will not have a substantial adverse effect on surrounding land uses and will be compatible with the existing and planned land use character of the surrounding area;
 - e. The improvements required and the manner of development adequately address all natural and man-made hazards associated with the proposed development and the project site, including, but not limited to, flood, fire, and seismic or soils hazards; and
 - f. The proposed development provides a more efficient use of the land and superior architecture and site design compared to that which could be achieved through the application of the zoning district regulations that otherwise would apply.
3. The General Plan designation for the subject area was approved by the City Council on May 15, 2018 modifying the General Plan designation of the subject parcel from High Density Residential to Low-Medium Density Residential.
4. The proposed project includes design features to allocate public open space along Porter Slough for the neighborhood, and provide pedestrian connectivity to the neighborhood and schools to the north.
5. That a Mitigated Negative Declaration was prepared for the project in accordance with the California Environmental Quality Act and was transmitted to interested agencies and made available for public review and comment. The review period ran for thirty (30) days, from April 14, 2018, to May 15, 2018.

NOW, THEREFORE, BE IT ORDAINED: That the City Council of the City of Porterville does ordain as follows:

Section 1: That the following described property in the City of Porterville, County of Tulare, State of California, known as Zone Change PRC 2017-029-Z, is hereby rezoned from RM-3 (High Density Residential) to PD (Planned Development), pursuant to Section 2 below, for the parcel described herein as Assessor Parcel Numbers 240-050-033 and 240-050-034 located generally midway between the Friant Kern Canal and Westwood Street, on the north side of Henderson Avenue; and

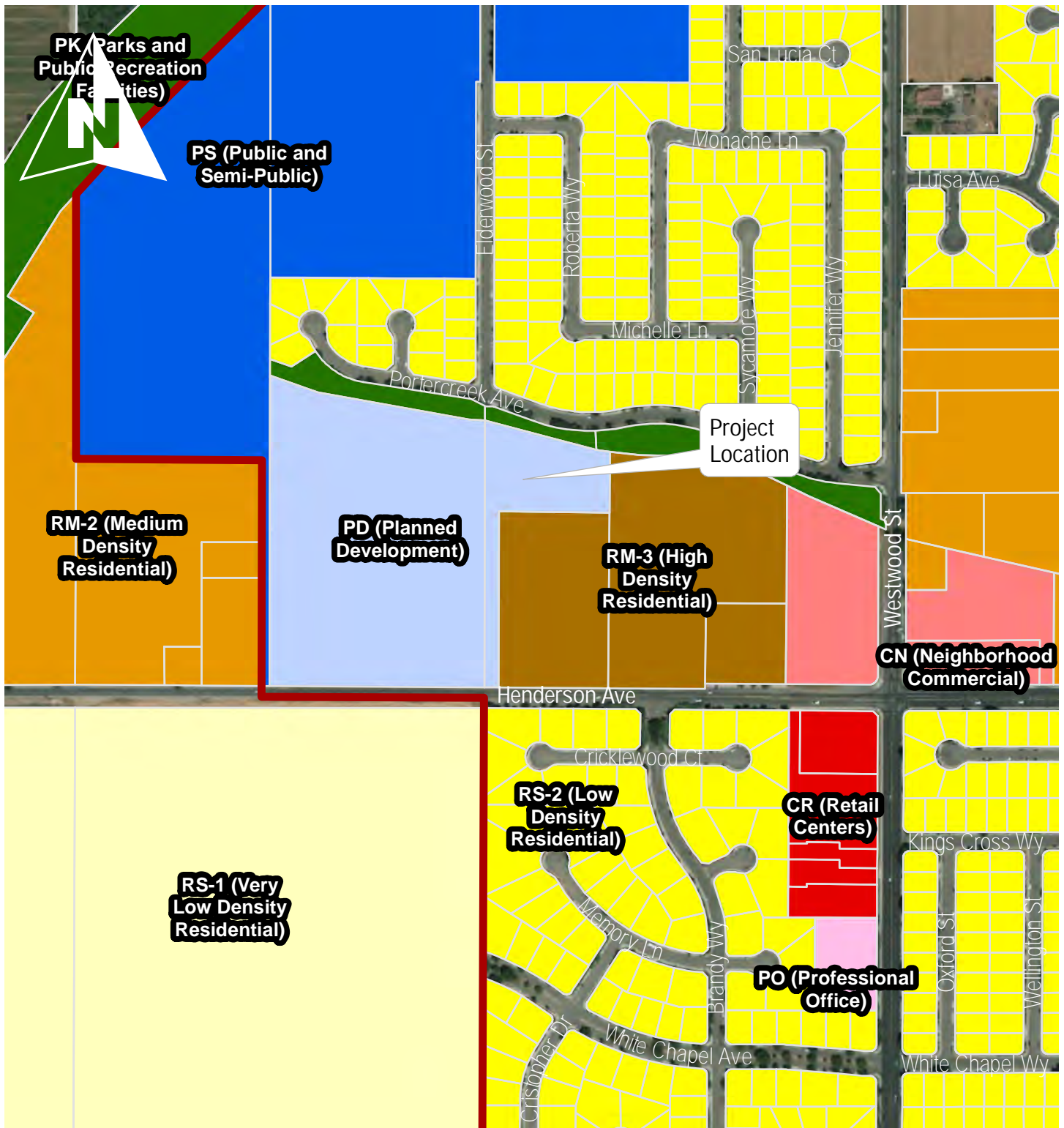
Section 2: It is further ordained that all records of the City of Porterville, together with the official zoning map of the City of Porterville, shall be changed to show the above described real property is rezoned from RM-3 (High Density Residential) to PD (Planned Development) for the parcel described above, more particularly shown on the attached map as Exhibit "A".

PASSED, APPROVED AND ADOPTED this 15th day of May, 2018.

By: _____
Brian Ward, Mayor Pro Tem

ATTEST:
John D. Lollis, City Clerk

By: _____
Patrice Hildreth, Chief Deputy City Clerk



PRC 2017-029
Windsor Court Development Project
Zoning Map
1" = 400 ft.

RESOLUTION NO. ____-2018

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE
CONTAINING FINDINGS IN SUPPORT OF APPROVAL FOR THE WINDSOR COURT
TENTATIVE SUBDIVISION MAP FOR THAT 16.77± ACRE VACANT SITE GENERALLY
LOCATED ON THE NORTH SIDE OF HENDERSON AVENUE, APPROXIMATELY
MIDWAY BETWEEN THE FRIANT KERN CANAL AND WESTWOOD STREET

WHEREAS: The City Council of the City of Porterville at its regularly scheduled meeting of May 15, 2018, conducted a public meeting to consider approval of a Mitigated Negative Declaration which evaluates the environmental impacts of a General Plan Amendment, Zone Change, and a Tentative Subdivision Map, for the development of the Windsor Court Development Project, consisting of 80 parcels with lots ranging from 4,375 to 9,932 square feet, for the 16.77± acre parcels, located on the north side of Henderson Avenue, approximately midway between the Friant Kern Canal and N. Westwood Street (APNs 240-050-033 and 034);

WHEREAS: General Plan Amendment (PRC 2017-029-G) proposes a General Plan amendment from High Density Residential to Low-Medium Density Residential, contingent upon approval of the Mitigated Negative Declaration for the Windsor Court Development Project; and

WHEREAS: Zone Change (PRC 2017-029-Z) proposes to change the present zoning classification of the subject parcels from RM-3 (High Density Residential) to PD (Planned Development), contingent upon approval of the General Plan Amendment; and

WHEREAS: The City Council, at its regular scheduled meeting of May 15, 2018, conducted a public hearing to consider the proposed Tentative Subdivision Map (PRC 2017-029-S), draft resolution and findings for 80 parcels with lots ranging from 4,375 to 9,932 square feet, contingent upon approval of the Mitigated Negative Declaration, General Plan Amendment and subsequent Zone Change; and

WHEREAS: The City Council received testimony from all interested parties relative to the proposed tentative subdivision map; and

WHEREAS: The City Council made the following findings:

1. That the proposed Project is consistent with the goal, policies and land use designation of the Porterville 2030 General Plan. The General Plan designates the site as Low-Medium Density Residential, as supported by the PD (Planned Development) zoning. The proposed subdivision will be developed within the density allowed by the General Plan.
2. That the site is physically suitable for the type and density of the proposed development. The vacant site is flat and has medium to coarse textured soils with a high water infiltration rate.

3. That the Negative Declaration prepared for this project is in compliance with the California Environmental Quality Act indicating that such a project will not have an effect on the environment.
4. The Initial Study prepared for this project indicates that all potential impacts will be mitigated to less than significant levels. Through the implementation of the mitigation measures contained in the Mitigation Monitoring Program, the result in impacts addressed will be less than significant.
5. That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety or welfare, or materially injurious to properties or improvements in the area. The General Plan designates the site for Low-Medium Density Residential. Conditions of approval are included to ensure adequate development standards are met.
6. The proposed project includes design features to allocate public open space along Porter Slough for the neighborhood, and provide pedestrian connectivity to the neighborhood and schools to the north.
7. That the standards of population density, site area dimensions, site coverage, yard spaces, heights of structures, distance between structures, off-street parking facilities and landscaped areas will produce an environment of stable and desirable character consistent with the objectives of the Development Ordinance. The proposed project complies with all of the requirements of Series 400 Land Divisions, of the Porterville Development Ordinance.

NOW, THEREFORE, BE IT RESOLVED: That the City Council of the City of Porterville does hereby approve the Windsor Court Tentative Subdivision Map (PRC 2017-029-S) subject to the following conditions:

1. The subdivider shall dedicate or make an irrevocable offer of dedication of land within the subdivision for local transit facilities such as bus turnouts, benches, shelters, landing pads and similar items that directly benefit the residents of a subdivision.
2. The applicant shall install an accessible pedestrian bridge crossing the Porter Slough that is ADA compliant, connecting the proposed development with Elderwood Street to the north to accommodate walkability to the school campuses. An encroachment permit to cross Porter Slough from the Central Valley Flood Protection Board will be required prior to issuance of a building permit.
3. The subdivider shall dedicate or make an irrevocable offer of dedication of land within the subdivision for open space and landscape areas as represented on the tentative subdivision map (Exhibit "A").

4. The subdivider shall improve, or agree to improve, all streets, highways, or ways in or adjacent to the subdivision. All improvements shall be installed to permanent line and grade in accordance with the approved improvements plans for that subdivision on file with the City Engineer or Public Works Director. Improvements which the subdivider shall make, or agree to make, is described in Section 407.02 (f), Required Improvements Enumerated, of the Porterville Development Ordinance.
5. The subdivider shall dedicate easements of ten feet in width for public utility, sanitary sewer, water, and drainage purposes on each side of rear lot lines and alongside lot lines. Easements of different width may be required, based on the Public Works Director determination.
6. The City shall require the subdivider to dedicate or make an irrevocable offer of dedication of land, to pay a fee in lieu thereof, or a combination of both, for neighborhood and community open space, park and recreational purposes.
7. Subdivision trees and landscaping design shall be approved by the city and shall be planted at a time and in locations approved by the City Director of Parks and Leisure Services, all in general accord with the requirements of the Porterville Municipal Code.
 - a. At least one tree shall be planted on each residential lot. Five gallon trees shall be installed upon all lots abutting interior, local and Collector Street, and 15 gallon trees shall be planted upon parcels having frontage on arterial thoroughfares.
 - b. The subdivider shall be required to plant street trees at 35 feet on center along all parkways within and/or bordering the subdivision.
8. The developer/applicant shall comply with Chapter 303, Landscaping, of the Porterville Development Ordinance and Chapter 25, Article I, Division 6 of the Municipal Code. Landscape plans shall be drawn to scale and shall at a minimum indicate: proposed plant locations, species, and sizes; any additional proposed landscape elements; soil preparation measures; and any other measures to facilitate plant growth or control erosion. Landscape plans shall include verification that the soil type, depth, and other characteristics are appropriate for the proposed landscaping and irrigation. Landscape plans shall also indicate the location of any existing trees over six inches in diameter, and whether each such tree is proposed for retention or removal. Each landscape plan shall be accompanied by an irrigation plan that at a minimum indicates the location, type and size of all components of the irrigation system, including automatic controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, and backflow prevention devices.
9. Per the General Plan Circulation Element, the following guiding and implementing policies shall apply; C-I-7 Require street tree planting as part of an urban forestry program:
 - a. **Parkway Trees.** Provide for the installation of parkway trees as required by the Director of Parks and Leisure Services in accordance with City standards pertaining to the type, size, spacing and placement of such trees; to the maintenance or extension of street tree themes when applicable; and, to the time of installation when it is determined it would

be in the best interest of the City to postpone the placement of trees required pursuant to this section.

10. Landscaping shall be designed and plantings selected so that water use is minimized. The total water use (ETWU) of the proposed landscaping on a site, as described in Chapter 25, Article I, Division 6, may not exceed the maximum applied water allowance (MAWA).
11. Per Section 407.03 (i) of the Porterville Development Ordinance each subdivision shall be subject to the creation of a Landscaping and Lighting Maintenance District in compliance with the Landscaping and Lighting Act of 1972 (Streets and Highways Code 22500 et. Seq.) to address the extension of improvements such as, but not limited to, lighting, common landscaping areas, including pocket parks, perimeter walls, drainage systems beneficial to specific subdivisions, drainage reservoirs, and open space areas, and the maintenance of such facilities through appropriate mechanisms as approved by the City Attorney. If a Landscaping and Lighting Maintenance District, Benefit Assessment District, or similar district is required, the following standards apply:
 - a. Prior to the approval of improvement plans for a development, the applicant shall submit the following information for the establishment of a landscaping and lighting maintenance district, the extension of the subject improvements into the assessment area, and the maintenance of the improvements once constructed:
 - i. A petition on a form provided by the city requesting to have the subdivision placed in a district at the time the final map is approved by the city.
 - ii. Completed and approved landscaping and lighting improvement plans, and legal description.
 - b. The district shall be established, or the annexation into an existing district concluded, and improvements completed and accepted concurrently with the other improvements in the subdivision.
 - c. Exclusive of assessments for a district, the applicant shall pay all service fees and maintain all new district improvements in a safe and healthy manner for the greater of a 90-day plant establishment period following acceptance of the subdivision improvements, or until assessment begins for the district.
12. The center lines of all streets, wherever practicable, shall be the continuations of the center lines of existing streets, or shall be offset at least one hundred 150 feet.
13. Pedestrian ways ten feet or more in width may be required:
 - a. Through the middle of blocks that are more than 600 feet in length;
 - b. To connect culs-de-sac;
 - c. To provide access to playgrounds, parks, schools, shopping centers, or similar community facilities; and/or
 - d. To provide access to trails or bikeways shown in the General Plan;
 - e. The subdivider shall install paving, landscaping, and fences as approved by the City Council or Parcel Map Committee unless otherwise waived.

14. All existing trees six inches in diameter or over shall be shown on the tentative map with a notation as to the size, species and drip line. Trees that are part of an agricultural crop may be shown as the outer extent of the planting with a notation as to the species and average tree size and drip line.
15. Existing trees six inches or over in diameter may be required to be preserved. In cases where tree preservation is required, all grading and necessary tree trimming shall be conducted in accordance with an arborist's recommendations for tree preservation.
16. Trees within a proposed public right-of-way shall be removed only for good cause to protect the public safety or to allow the installation of adequate public facilities as may be approved by the City Engineer and the Zoning Administrator.
17. The developer/applicant shall comply with Section 201.04, Supplemental Regulations, of the Porterville Development Ordinance for single-family residential development standards for all project elements not governed by the Planned Development.
18. Unless otherwise noted, the developer/applicant shall comply with the City Master Plans and Standard Drawings, Standard Specifications for Public Works Construction (2015 Edition), and Standard Plans and Specifications (2015 Standards), except where they are in conflict with current access compliance regulations, the current California Building Code, the Tulare County Hazardous Waste Management Plan, the California Manual on Uniform Traffic Control Devices, the Porterville Circulation Element, and the Tulare County Congestion Management Program.
19. The developer/applicant shall pay all applicable fees according to the Municipal Code and State law. Fees are subject to change annually.
20. The developer/applicant is hereby notified that you have the right to pay fees, dedications, reservations or other exactions, under protest, pursuant to Government Code section 66020(a). You have 90 days from the date fees are paid to file a written protest.
21. Prior to recording the final map, the developer/applicant shall provide easements, permits, calculations, etc., if, in the opinion of the City Engineer, they are needed for the proper functioning or phasing of the development (e.g., water, sewer, drainage, "turn arounds", etc.). If the City Engineer determines that construction of improvements is needed to protect public health and safety or for orderly development of the surrounding area, the developer/applicant shall construct or provide a surety for said improvements.
22. The developer/applicant shall dedicate a one-foot limitation of access strip at locations where, in the opinion of the City Engineer, it is undesirable to allow access.
23. The developer/applicant shall dedicate right-of-way for an 84 foot final street width on Henderson Avenue and dedicate the required property for accessible ramp(s)/curb returns. For consistency with the adopted Land Use and Circulation Element, the developer/applicant shall insure that no building are proposed within the ultimate 116 foot

Henderson Avenue right-of-way.

24. Prior to recording the final map, the developer/applicant shall replace or provide surety for replacement of irrigation pipes in the right-of-way (if present) if, in the opinion of the City Engineer, replacement is warranted. The developer/applicant shall cure any leaks in irrigation pipes crossing the subject parcel, if in the opinion of the City Engineer, such leaks may interfere with the development of the subject site. Easements shall be provided for irrigation pipes across parcels created, if such pipes will continue in use.

25. The dedication of easements or any other potential dedications shall be clearly identified on the Final Map. A Dedications Statement shall be placed on the map that reads:

"Pursuant to the authority conferred by the City of Porterville, Ordinance No. 1590, adopted February 20, 2001, the undersigned, on behalf of the Public and City Council of the City of Porterville consents to the acceptance and recordation of the dedication(s) as shown on this map.

Dated this _____ day of _____, 20__

By Javier Sanchez, Acting City Engineer RCE 70356"

26. Easement(s) shall be in place that allow for mutual ingress, egress and maintenance of the shared driveways.
27. Prior to approval of the improvement plans, the developer/ applicant shall have completed and approved, landscaping and/or lighting improvement plans. The developer/applicant shall petition, on a form provided by the City, to have said subdivision placed in a Lighting and Landscape Maintenance District. Submit with the petition the \$375 fee. The following shall be included and maintained in said district: (1) Lighting, (2) Recreational Open Space, (3) Public Landscaping, if any (4) Public walls/fences, if any, (5) Drainage reservoir, if any, and (6) any other public improvement in accordance with Series 400, Section 407.03 (i) of the Development Ordinance.
28. The developer/applicant shall prepare an Engineer's Report for the establishment of the assessments in order to provide for ongoing maintenance of the subdivision improvements to be included in the Lighting and Landscape Maintenance District. The Lighting and Landscape Maintenance District shall be established, or annexation into an existing District shall be concluded and landscape and lighting improvements shall be completed and accepted concurrently with the other improvements in the project.
29. Exclusive of assessments for a Lighting and Landscape Maintenance District, the developer/applicant shall pay all service fees and maintain all new lighting and landscape improvements in a safe and healthy manner for the greater of a minimum ninety-day plant establishment period following acceptance of the subdivision improvements, or until assessment begins for the Lighting and Landscape Maintenance District.

30. Building or foundation permits shall not be issued until all of the following items are accepted as complete:
 - a. The storm drain system is functional so that it will accept water from fire hydrant and/or water main flushing;
 - b. The water system, is functional from the source of water past the lots on which permits are being requested (i.e. all services and the sampling station, if required, are installed, valves are functional and accessible, bacteria testing is completed, etc.);
 - c. Street base rock for accessibility by the public safety officials and building inspectors;
 - d. Lots are graded in accordance with the approved grading plan. Prior to receipt of the Final Grading, Drainage and Soils Report a letter from the "Supervising Civil Engineer" is required validating that the grading has been done in accordance with the approved grading plan and in accordance with the recommends contained in the Preliminary Soils Report;
 - f. Lot corners are marked;
 - g. Fire hydrants are accepted by the Fire Department and the Engineering Division.
31. The developer/applicant shall coordinate with the U.S. Postal Service regarding the kind of mail facilities that will be utilized. If neighborhood box units (NBUs) are to be used, construct sidewalks in a timely manner to facilitate NBU installation.
32. The developer/applicant shall cause all regulatory and street name signs to be installed prior to occupancy of any house located where its occupants will utilize a street that does not have them.
33. To accommodate refuse vehicles and street sweepers, the developer/applicant shall dedicate and improve, to City standards, temporary turn-arounds at the ends of dead-end streets.
34. The developer/applicant shall cause the sewer system to be completed, tested, and accepted by the City prior to residential occupancy of any house in the subdivision.
35. Prior to acceptance of improvements, the developer/applicant shall provide 32W-3000K LED streetlights for interior streets and 88W-3000K LED streetlights for Henderson Avenue, all on Marbelite poles complying with Southern California Edison Company specifications as required by the City Engineer. Spacing between streetlights shall not exceed 160 feet at staggered intervals.
36. The developer/applicant shall provide street striping and flexible delineators as necessary to provide safe vehicular movements, where directed by the City Engineer.
37. The developer/applicant shall construct street improvements that comply with the intention of the adopted Development Ordinance. Within the development, street right of way width shall be fifty (50) feet wide with a parkway between the back of curb and sidewalk. Dry public utilities shall be located within an easement outside of the public right of way. The developer/applicant shall construct curb, gutter, and sidewalk along the full length of the

property on Henderson Avenue. The developer/applicant shall pave out Henderson Avenue from the edge of the existing road to the proposed gutter lip per City of Porterville standards.

38. Prior to approving the Tentative Subdivision Map, the City shall evaluate the affect the drought and growth has had on the City's water system. The results of water modeling will determine the feasibility of providing water to this development and future developments.

Assuming the water model proves adequate water supply, the developer/applicant shall:

- a. Construct all water facilities that the City Engineer determines are necessary to comply with the intent of the Water Master Plan. The developer/applicant shall extend a 12" master plan water line across the full length of the property on Henderson Avenue. The developer/applicant shall enter into a reimbursement agreement with the City for payback of the master plan water line.
 - b. Dedicate or convey a "well lot" within the tentative map for construction of a master plan well lot. Acquisition of property will be in accordance with the City's adopted Property Acquisition Procedures.
 - c. Construct the water system in a maximum of two sections for each phase of the subdivision. One section for the model homes and one section for the remainder of the phase. The number of model homes shall not exceed one for each 10 lots in the subdivision or four, whichever is greater. The model homes shall be clustered.
 - d. Design a water system that will provide a fire flow at each fire hydrant of 1,000 g.p.m. with 20 p.s.i. residual pressure for a dwelling less than 3,600 square feet and 1,500 g.p.m. with 20 p.s.i. residual pressure for a dwelling unit greater than 3,600 square feet.
39. In accordance with Series 400, Section 407.02 (g) or (h) of the Development Ordinance, the developer/applicant shall enter into an agreement that provides for completion of improvements within 12 months of the Final Map acceptance.
40. Prior to recording the final map, the developer/applicant shall provide improvements by the method indicated below:
- a. Pursuant to Section 66411.1(b) of the Government Code, the developer applicant shall construct curbs, gutters, sidewalks, curb returns per City standards, sewer laterals, water services, fire hydrant relocation, street lights, connecting pavement along the full frontage of the proposed land division parcels. Additional improvements include a functional drainage system, well abandonment (if any and not in compliance with the City's Backflow Ordinance), curing of leaks in irrigation lines (if any), and other improvements necessary for public health and safety, except where they exist to Federal, State and City standards and are in good condition in the opinion of the City Engineer.
41. Prior to approval of the final map the developer/applicant shall provide public improvement plans prepared by a Civil Engineer that include specific on-site grading details and specifications for City approval.

42. The developer/applicant shall comply with Appendix J, “Grading” of the current California Building Code, including provision of a grading and drainage plan signed by a licensed civil engineer. Drainage calculations must be submitted to verify the proposed design will capture and convey the necessary runoff per City of Porterville’s standards.
43. The developer/applicant shall comply with City Retaining Wall Standards (adopted by City Council January 3, 1989) at lot lines where such standards are applicable.
44. The developer/applicant shall provide a geotechnical report in conformance with Chapter 18 of the current California Building Code (CBC). Where required for the construction of public improvements, the geotechnical report shall also include R-Value testing, expansion indexes, etc.
45. The developer/applicant shall comply with driveway vehicular sight distance requirements per Section 300.16 of the Development Ordinance and driveway separation from property line per City standards.
46. The developer/applicant shall comply with City Standard for “backflow” prevention pursuant to Resolution No. 9615 (1981).
47. The developer/applicant is hereby notified that the installation of an additional water meter, servicing the irrigation system, is required for monitoring actual water usage if non-residential and residential landscape areas are 1,000 and 5,000 square feet or more respectively.
48. The developer/applicant shall construct drainage facilities as required to serve the property (Ordinance No. 1306). An existing master plan storm water basin is located northwest of the proposed development that may be able to server the proposed development. Developer/applicant shall verify that the existing basin has sufficient capacity to handle the additional runoff from the proposed development. The developer/applicant will not be allowed to discharge storm water runoff into the Porter Slough. A minimum amount of runoff must be contained onsite on each lot per the State’s MS4 post-construction requirements.
49. The developer/applicant shall move existing utility structures (i.e., poles, splice boxes, vaults, etc.) to a position that provides a minimum of four feet of clear space in the sidewalk area and a minimum of two feet of clear space from the curb face to the structure, unless the utility structures are below grade (Title 24 OSA).
50. The developer/applicant shall, under City inspection, remove all existing abandoned and unnecessary items, to the satisfaction of the City Engineer, before the issuance of a certificate of occupancy (for example, foundations, septic tanks, irrigation pipes, etc.).
51. The developer/applicant shall abandon existing wells, if any, after first getting an abandonment permit from the Tulare County Environmental Health Services Division.

The developer/applicant is required to provide the City Engineer with proof of compliance with County regulations before performing any grading or issuance of the building permit, whichever comes first.

52. The developer/applicant shall assure compliance with Section 7-8, Work Site Maintenance of the Standard Specifications. Applicable requirements from both San Joaquin Valley Unified Air Pollution Control District Regulation VIII, Fugitive PM10 Prohibitions and the California Green Code Standards must also be met. During grading operations the "Supervising Civil Engineer" shall be responsible for enforcing the dust control provisions of Section 7-8 or the developer/applicant shall pay inspection fees on the grading cost to compensate the City for dust control inspection.
53. The developer/applicant shall not allow onsite runoff or debris outside of the limits of the property during construction. Applicable best management practices (BMPs) shall be implemented to protect the City's drainage system and inhibit vehicle track-out onto City streets. The improvement plans shall show the location of BMPs and areas designated for erosion and waste control. The developer/applicant shall remove and properly dispose of waste and spills deposited in the project area.
54. The developer/applicant is advised that they are obligated to comply with the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for discharge of Storm Water Associated with construction activity will be required (except operations that result in disturbance of less than one acre of total land area and which are not a part of a larger common plan of development or sale). Before construction begins, the proponent must submit a Notice of Intent (NOI) to comply with the permit, a site map, and appropriate fee to the State Water Resources Control Board (SWRCB). The proponent must also prepare a Storm Water Pollution Prevention Plan (SWPPP) for the entire project before construction begins. The SWPPP must contain at a minimum all items listed in Section A of the permit, including descriptions of measures to be taken to prevent or eliminate unauthorized non-storm water discharges and both temporary (e.g., fiber rolls, silt fences, etc.) and permanent (e.g., vegetated swales, detention basins, etc.) best management practices that will be implemented to prevent pollutants from discharging with storm water into water of the United States. If portions of the project area are to be sold off before the entire project is completed, the proponent must submit to the California Regional Water Quality Control Board a change of information form identifying the new owners along with a revised site map clearly depicting those portions that were sold and those that are remaining. The proponent is also responsible for informing each new owner of their responsibility to submit their own NOI, site map, and appropriate fee to the SWRCB and to prepare their own SWPPP.
55. San Joaquin Valley Air Pollution Control District (District) Adoption of Rules 9510 and 3180 – Indirect Source Review (ISR) Rules:

The San Joaquin Valley Air Pollution Control District enforces the Indirect Source Rule (ISR). ISR applies to projects that are at least:

- 50 residential units
- 2,000 square feet of commercial space
- 9,000 square feet of educational space
- 10,000 square feet of government space
- 20,000 square feet of medical or recreational space
- 25,000 square feet of light industrial space
- 39,000 square feet of general office space
- 100,000 square feet of heavy industrial space
- Or, 9,000 square feet of any land use not identified above.

Projects that meet the above thresholds but are found through the application process to have mitigated emissions of less than two tons per year each of nitrogen oxides and PM10 (particulate matter 10 microns and smaller) are not be subject to the emission-reduction requirements of the rule.

For more information regarding the Indirect Source Rule, please contact the San Joaquin Valley Air Pollution Control District at (559) 230-6000.

56. Based on the occupancy classification, a fire alarm and/or an automatic sprinkler system may be required.
57. When a sprinkler system is required all valves controlling the water supply for automatic sprinkler systems and water-flow switches on all sprinkler systems shall be electrically monitored where the number of sprinklers is more than 20.
58. For automatic sprinkler systems, underground plans must be submitted with above ground plans. A hydrant will be required within 50 feet of the Fire Department connection.
59. When any portion of the facility or building to be protected is more than 400 feet from a hydrant on a fire apparatus access road as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code officials.
60. Depending on the location of the existing fire hydrant(s), additional fire hydrants may be required. All hydrants must be in place and accepted by the Fire Department prior to any combustibles being brought on the site.
61. The City will test and maintain all fire hydrants in the City whether on private property or not. An "easement" is required from the owner.

Fire hydrants shall be spaced as one hydrant to be installed at 500-foot intervals or as required by Appendix C California Fire Code.

62. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building constructed or moved onto or within the City of Porterville. It shall extend to within 150 feet of all portions of the facility and all portions on the exterior walls

of the first story of the building as measured by an approved route around the exterior of the building or facility.

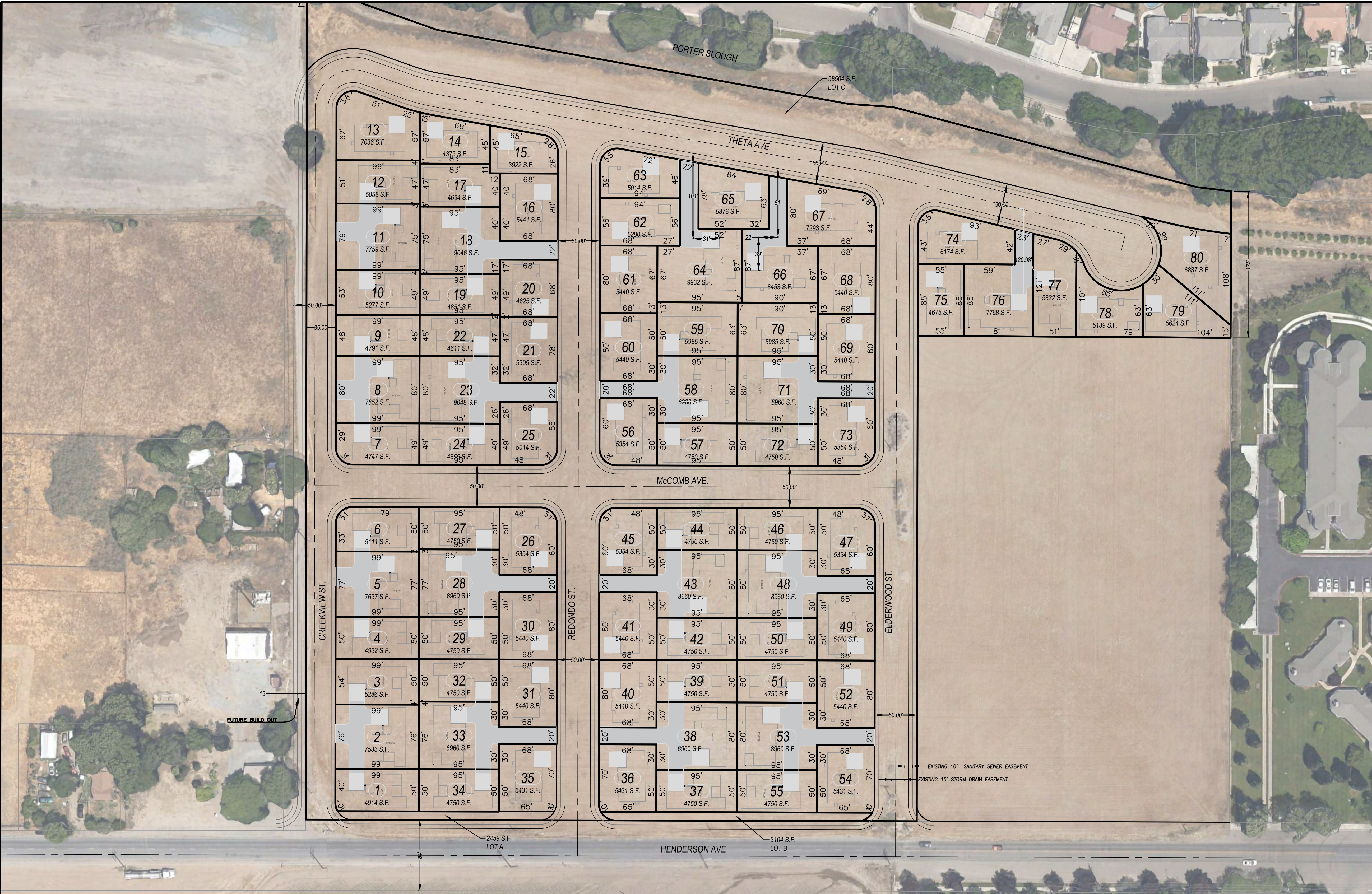
63. All dead-end access roads in excess of 150 feet must be provided with an approved turn-around or Hammer head complying with City Standards.
64. Areas identified as "Fire Lands" must be identified as such per requirements set forth in the California Vehicle Code Section 22500.1
65. All fire suppression systems shall be approved by the City Of Porterville Fire Prevention Bureau. Such systems shall be reviewed for access, redundancy, reliability and quality.
66. Additional access may be required per CFC 2016 Section 503.1.2 The Fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.
67. The developer/applicant shall comply with all mitigation measures adopted as a component of the approval of the Mitigated Negative Declaration for this project. Prior to recording the final map, the developer/applicant shall submit a signed document committing to comply with the adopted mitigation measures.

PASSED, APPROVED AND ADOPTED this 15th day of May, 2018.

By: _____
Brian Ward, Mayor Pro Tem

ATTEST:
John D. Lollis, City Clerk

By: _____
Patrice Hildreth, Chief Deputy City Clerk



WINDSOR COURT TENTATIVE SUBDIVISION MAP

BEING A PORTION PARCELS 33 & 34 RECORDED IN BOOK 240 OF
PARCEL MAPS AT PAGE 05, OF TULARE COUNTY RECORDS, LOCATED IN
THE SOUTHEAST 1/4 OF SECTION 19, TOWNSHIP 21 SOUTH, RANGE 27
EAST, MOUNT DIABLO BASE & MERIDIAN.

*CONDITIONAL USE PERMIT
**REZONE TO RM-2 FROM RM-3
ENGINEER/PLANNER:
DEVELOPER:

4-CREEKS INC.

LEGEND:

APN: 240-05-033 & 240-05-034
ACREAGE: 16.77 AC
FLOOD ZONE: ZONE X
ZONING (EXISTING): RM-3
ZONING (PROPOSED): RM-2
GENERAL PLAN (EXISTING): HDR
GENERAL PLAN (PROPOSED): MDR
ELECTRICITY: SOUTHERN CALIFORNIA EDISON
WATER: CITY OF PORTERVILLE
SEWER: CITY OF PORTERVILLE
TELEPHONE: AT&T
REFUSE: CITY OF PORTERVILLE
NATURAL GAS: SOUTHERN CALIFORNIA GAS
EXISTING USE: VACANT
PROPOSED USE: SINGLE FAMILY RESIDENTIAL

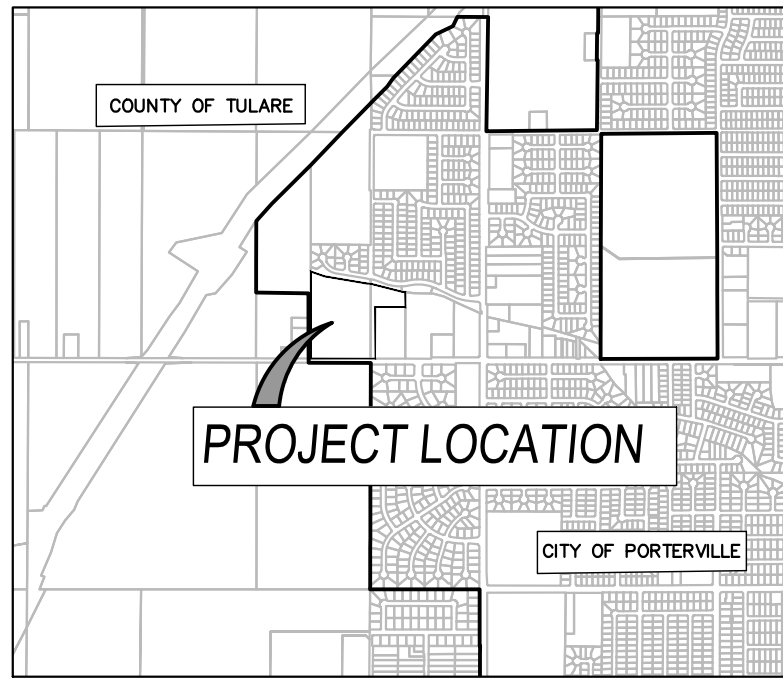
RM-2: GROSS ACREAGE: 16.77 AC
NET ACREAGE: 10.90 AC
TOTAL UNITS: 80 DU

GROSS DENSITY: TOTAL GROSS ACREAGE: 16.77 AC
TOTAL UNITS: 80 DU
GROSS DENSITY: 4.77 DU/AC

NET DENSITY: TOTAL NET ACREAGE: 10.90 AC
TOTAL UNITS: 80 DU
NET DENSITY: 7.33 DU/AC

LOTS TO BE DEDICATED TO CITY OF PORTERVILLE

- A) 2,459 SF
- B) 3,104 SF
- C) 58,504 SF



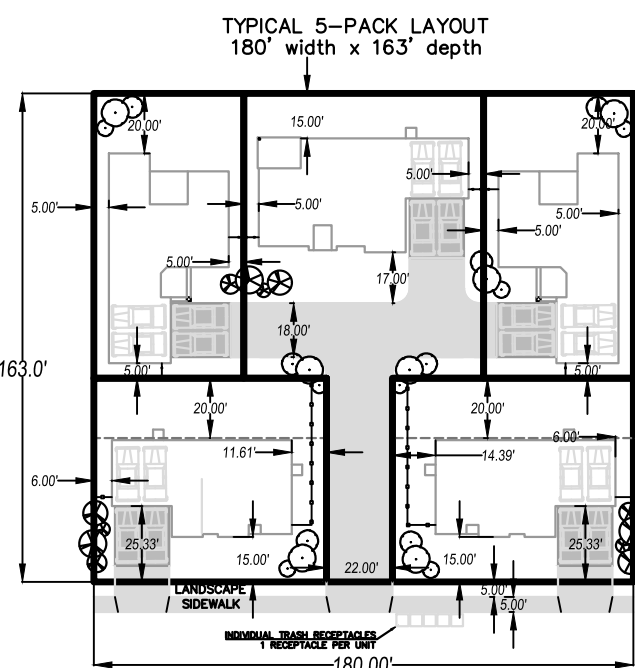
VICINITY MAP

PREPARED BY:

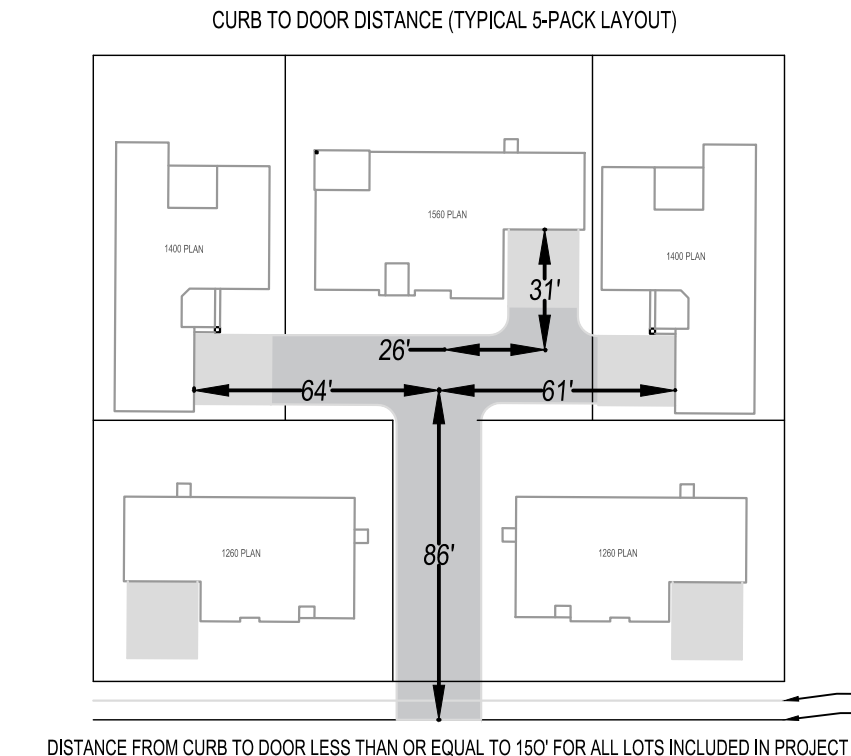
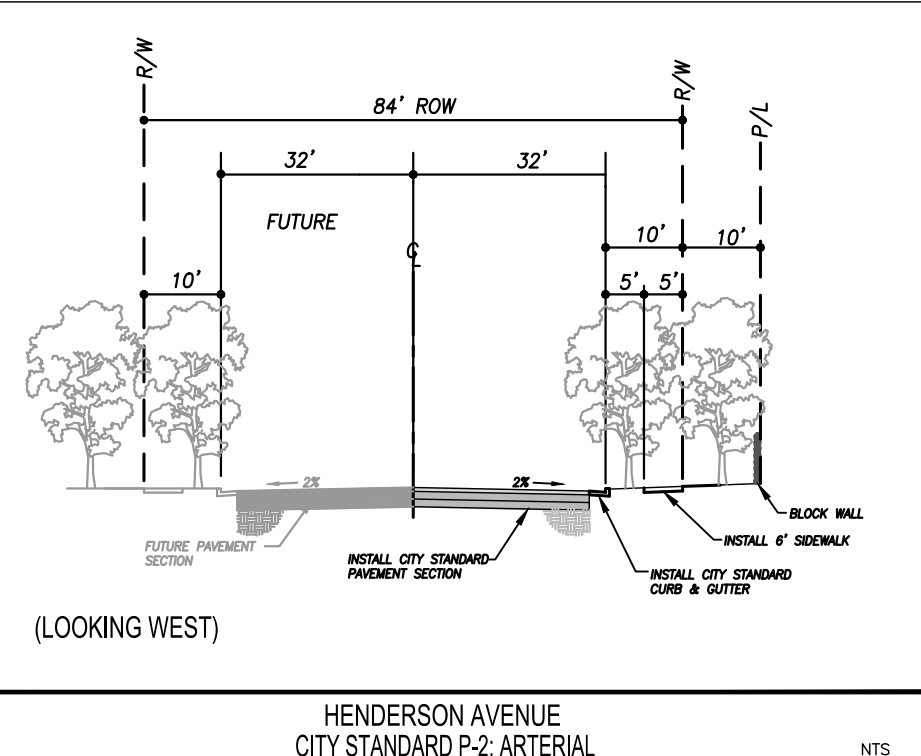
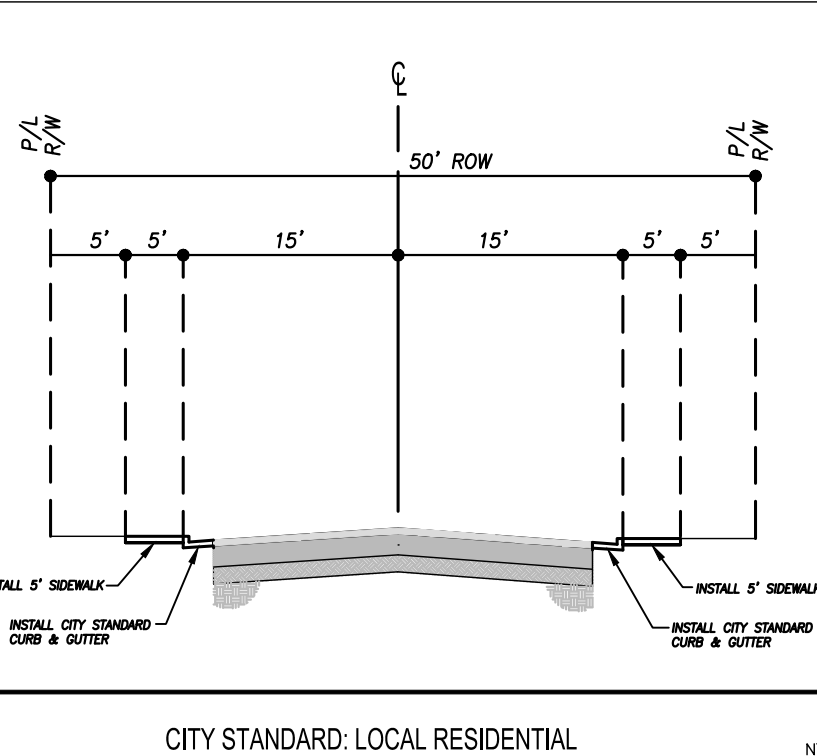
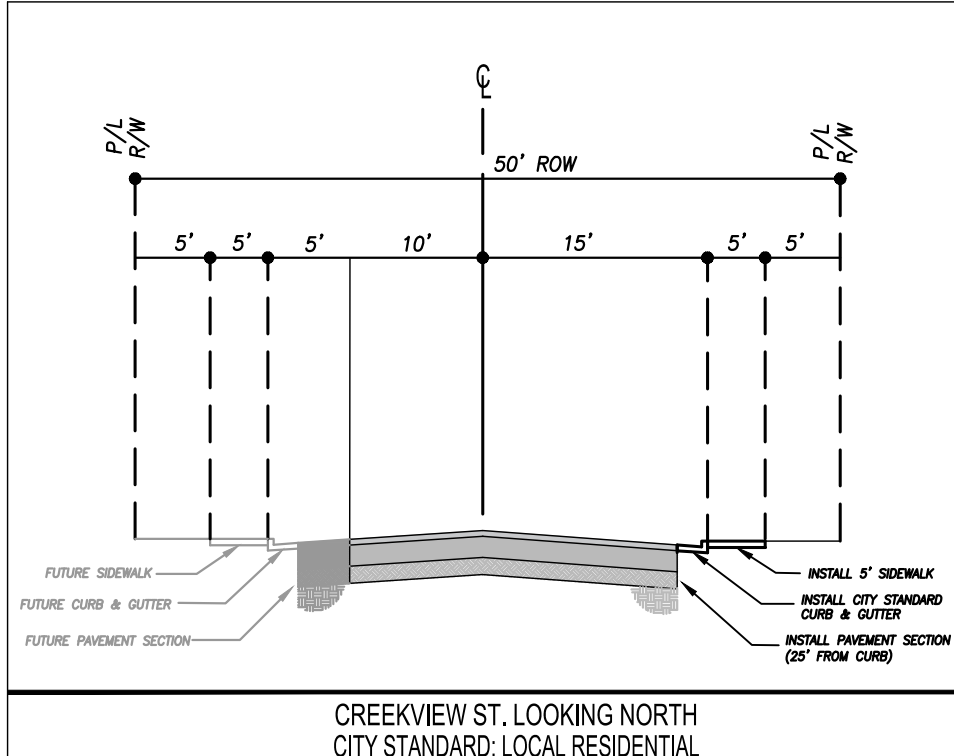


4CREEKS

324 S. SANTA FE, STE. A
P.O. BOX 7593
VISALIA, CA 93292
TEL: 559.802.3052
FAX: 559.802.3215



SETBACKS (MINIMUM):
LOTS FRONTING
ON PUBLIC ROW
FRONT YARD: 15' (18' to garage)
SIDE YARD: 5'
REAR YARD: 10'
INTERIOR LOTS
FRONT YARD: 5' (18' to garage)
SIDE YARD: 5'
REAR YARD: 5'





CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Second Reading - Ordinance No. 1845 - An Ordinance Establishing By-District Elections

SOURCE: Administrative Services

COMMENT: Ordinance No. 1845, An Ordinance of the City Council of the City of Porterville Adding Sections 2-1.1 through 2-1.5 of Chapter 2, Article I, to the Porterville Municipal Code Relating to Election of City Council Members by Districts, was given first reading on May 1, 2018, and has been printed.

RECOMMENDATION: That the Council give Second Reading to Ordinance No. 1845, waive further reading, and adopt said Ordinance.

ATTACHMENTS:

1. Ordinance 1845
2. Exhibit A-Map

Appropriated/Funded:

Review By:

Department Director:

Patrice Hildreth, Administrative Services Dir

Final Approver: John Lollis, City Manager

ORDINANCE NO. _____

**AN ORDINANCE OF THE COUNCIL OF THE CITY OF
PORTERVILLE ADDING SECTIONS 2-1.1 THROUGH 2-
1.5 OF CHAPTER 2, ARTICLE I, TO THE PORTERVILLE
MUNICIPAL CODE RELATING TO ELECTION OF CITY
COUNCIL MEMBERS BY DISTRICTS**

WHEREAS, members of the City Council of the City of Porterville (“City”) are currently elected in “at-large” elections, in which each City Council Member is elected by the registered voters of the entire City, held concurrently with the State-wide General Election in November of even-numbered years;

WHEREAS, in August 2017 the City received written notice alleging that the City’s at large system results in or has resulted in violations of the California Voting Rights Act, and while the City disputes this claim, it has determined that it is in the best interest of the City to shift from its current at large election system to a by district election for members of the City Council;

WHEREAS, California Government Code 34886, effective January 1, 2016, permits the City Council of the a city with a population of fewer than 100,000 people to change the city’s method of election by ordinance from an at-large system to a by-district system;

WHEREAS, as a Charter City, the City of Porterville may adopt such an ordinance adding such regulations to the municipal code if those regulations become effective upon the approval by the voters of an amendment to the City’s charter, or if otherwise required by a court order or other appropriate legal determination;

WHEREAS, on December 19, 2017 Judgment was entered in Tulare County Superior Court enjoining the City from utilizing an “at-large voting system” and ordering the City to proceed with the implementation of a by-district election system;

WHEREAS, the City Council held public hearings as required by California law prior to and after the development of draft district maps in order to receive testimony regarding the potential composition of City Council districts;

WHEREAS, on April 3, 2018, the City Council selected one of the proposed district maps to establish the City Council electoral districts in the City, which is attached hereto as Exhibit “A”;

WHEREAS, on May 1, 2018, the City Council held a duly noticed public hearing after which the City Council voted to introduce this Ordinance for a first reading; and

WHEREAS, the City Council now desires to adopt this Ordinance to establish by-district elections in five single-member districts in the City, and to adopt the map describing the boundaries and identifying number of the five City Council districts in the City;

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF PORTERVILLE
DOES ORDAIN, AS FOLLOWS:**

SECTION 1: Recitals. The City Council of the City of Porterville hereby finds that the above recitals are true and correct and are incorporated into the substantive portion of this ordinance.

SECTION 2: The City Council hereby adds Sections 2-1.1 through 2-1.5, to Chapter 2, Article I to read as follows:

2-1.1 Declaration of Purpose

The City Council of the City hereby declares the purpose of this Chapter is to further the purposes of the California Voting Rights Act of 2001 (Elections Code section 14025, et seq.), as amended.

2-1.2 By-District Elections for City Council

- A. Members of the City Council shall be elected by-district in five single-member districts. One member of the City Council shall be elected from each district by the voters of that district alone. Each member of the City Council shall serve a four-year term until his or her successor is qualified.
- B. The City Council Member elected to represent a district must reside in that district and be a registered voter in that district, and any candidate for city council must reside in, and be a registered voter in, the district in which he or she seeks election at the time nomination papers are issued.

2-1.3 City Council Districts Established

- A. The boundaries and identifying number of each of the five City Council districts shall be as described on the City Council District Map attached hereto as Exhibit "A", and incorporated by this reference.
- B. The City Council districts described in subsection A above shall continue in effect until they are amended or repealed in accordance with law. The boundaries of the city council districts shall be reapportioned from time to time as required by applicable law.

2-1.4 Implementation of By-District Elections

- A. The by-district system of elections shall be implemented, beginning at the general municipal election held in November 2018, as follows:

1. Members of the city council shall be elected in Districts 1 and 2 beginning at the general municipal election in November 2018, and every four years thereafter; and
 2. Members of the city council shall be elected in Districts 3, 4, and 5 beginning at the general municipal election November 2020, and every four years thereafter.
- B. No term of any member of the City Council that commenced prior to the effective date of this Chapter shall be affected by the adoption of this Chapter.

2-1.5 Severability

In any section, subsection, sentence or clause of this chapter is, for any reason, held to be invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this chapter. The City Council hereby declares that it would have passed this ordinance, and each section, subsection, sentence, clause or phrase hereof, irrespective of the fact that any one (1) or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

SECTION 3: This Ordinance shall be in full force and effect thirty (30) days after its final adoption by the City Council. The City Clerk shall cause this ordinance, or a summary thereof, to be published in accordance with applicable law.

Brian Ward, Mayor Pro Tem

ATTEST:

John D. Lollis, City Clerk

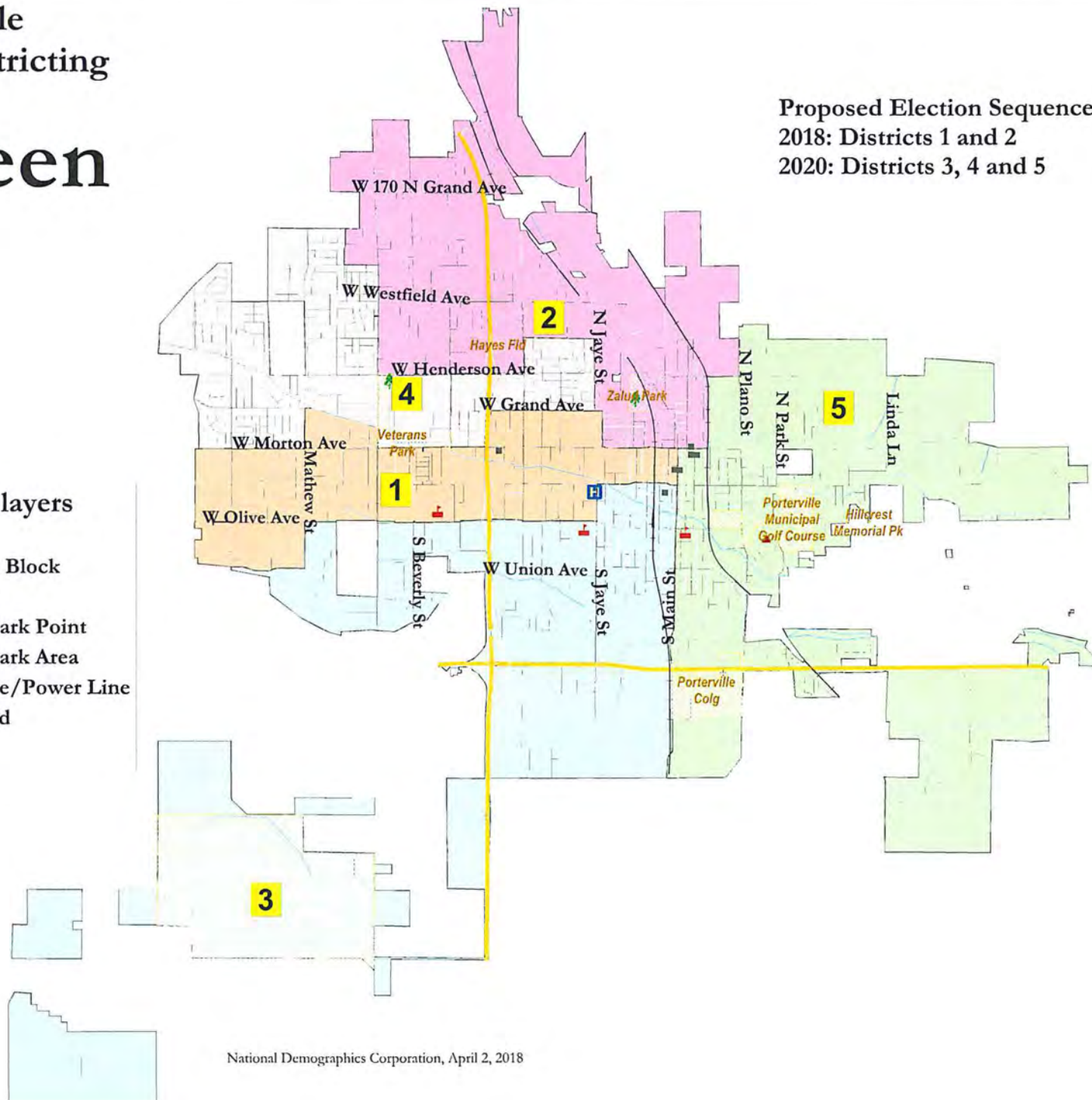
By: Patrice Hildreth

Porterville 2018 Districting

Green

Proposed Election Sequence:
2018: Districts 1 and 2
2020: Districts 3, 4 and 5

- Map layers**
- Green
 - Census Block
 - Streets
 - Landmark Point
 - Landmark Area
 - Pipeline/Power Line
 - Railroad
 - River



National Demographics Corporation, April 2, 2018

Exhibit A



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Second Reading - Ordinance No. 1846 - An Ordinance Approving Zone Change PRC 2018-014-Z

SOURCE: Administrative Services

COMMENT: Ordinance No. 1846, An Ordinance of the City Council of the City of Porterville approving Zone Change (PRC 2018-014-Z) from RM-3 (High Density Residential) to PS (Public and Semi-Public) for that 1.55± acre site located generally at the northwest corner of Henderson Avenue and Westwood Street, was given first reading on May 1, 2018, and has been printed.

RECOMMENDATION: That the Council give Second Reading to Ordinance No. 1846, waive further reading, and adopt said Ordinance.

ATTACHMENTS:

1. Ordinance 1846
2. Exhibit A

Appropriated/Funded:

Review By:

Department Director:

Patrice Hildreth, Administrative Services Dir

Final Approver: Patrice Hildreth, Administrative Services Dir

ORDINANCE NO. 1846

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE
APPROVING ZONE CHANGE (PRC 2018-014-Z) FROM RM-3 (HIGH DENSITY
RESIDENTIAL) TO PS (PUBLIC AND SEMI-PUBLIC) FOR THAT 1.55 ± ACRE SITE
LOCATED GENERALLY AT THE NORTHWEST CORNER OF HENDERSON AVENUE
AND WESTWOOD STREET

WHEREAS: The City Council of the City of Porterville at its regularly scheduled meeting of April 6, 1993, considered “D” Overlay Design Review 2-93 to allow the development of an 8,832+/- square foot structure in the C-1(D) Neighborhood Commercial with a Design Review Overlay zone; and

WHEREAS: Burton School District recently acquired this site for use as a non-educational facility. The District's representative has stated that the intended use of the building is for staff meetings, including in-service training or other similar gatherings. No students would be on-site, and the building will not serve in an educational capacity due to the additional standards and regulations on such uses by the California Department of General Service, Division of the State Architect (DSA). In the future, the District may wish to compartmentalize the space into offices for administrative staff, but due to other funding priorities, no construction activities are proposed for this site at this time; and

WHEREAS: The proposed use is inconsistent with the current zoning designation, and in contrast to the initial use, this inconsistency cannot be rectified with a Conditional Use Permit. The proper remedy is a change of designation for zoning and land use; and

WHEREAS: The City Council of the City of Porterville at its regularly scheduled meeting of May 1, 2018, conducted a public hearing to consider findings in support of Zone Change (PRC 2018-014), being a change of zone from RM-3 (High Density Residential) to PS (Public and Semi-Public) for the parcel located 310± feet west of Westwood Street, north of Henderson Avenue (APN 240-050-026); and

WHEREAS: The City Council of the City of Porterville determined that the proposed Zone Change (PRC 2018-014) is consistent with the guiding and implementation policies of the adopted 2030 General Plan; and

WHEREAS: That the zone change, inasmuch as the activity is consistent with General Plan Policies identified in Chapter 5.3 of the Porterville General Plan, does not merit further environmental review, as established in Section 15183 of Article 12 of the California Code of Regulations (CEQA Statutes); and

WHEREAS: The City Council made the following findings that the proposed project will advance the goals and objectives of and is consistent with the policies of the General Plan and any other applicable plan that the City has adopted.

- a. The project supports and complies with the following General Plan policies:
 - LU-G-1: Promote a sustainable, balanced land use pattern that responds to existing needs and future needs of the City.
 - LU-G-3: Promote sustainability in the design and development of public and private development projects.
 - PSCF-G-4: Support efforts to provide superior public and private educational opportunities for all segments of the population.
- b. Use of the existing building for administrative services will support the general plan growth strategy to encourage infill development, while supporting increased use of existing and future school campuses, by making rooms available at those campuses for educational purposes.
- c. The General Plan designation for the subject area was approved by the City Council on May 1, 2018 modifying the General Plan designation of the subject parcel from High Density Residential to Public/Semi-Public.
- d. The subject Zone Change will not create adverse environmental impacts on the adjacent neighborhood when standards of the Development Ordinance and General Plan are applied to the subsequent development project.

NOW, THEREFORE, BE IT ORDAINED: That the City Council of the City of Porterville does ordain as follows:

- Section 1: That the following described property in the City of Porterville, County of Tulare, State of California, known as Zone Change PRC 2018-014-Z, is hereby rezoned from RM-3 (High Density Residential) to PS (Public and Semi-Public), pursuant to Section 2 below, for the parcel described herein as Assessor's Parcel Number 240-050-026 located generally 310± feet west of Westwood Street on the east side of Prospect Street; and
- Section 2: It is further ordained that all records of the City of Porterville, together with the official zoning map of the City of Porterville, shall be changed to show the above described real property is rezoned from RM-3 (High Density Residential) to PS

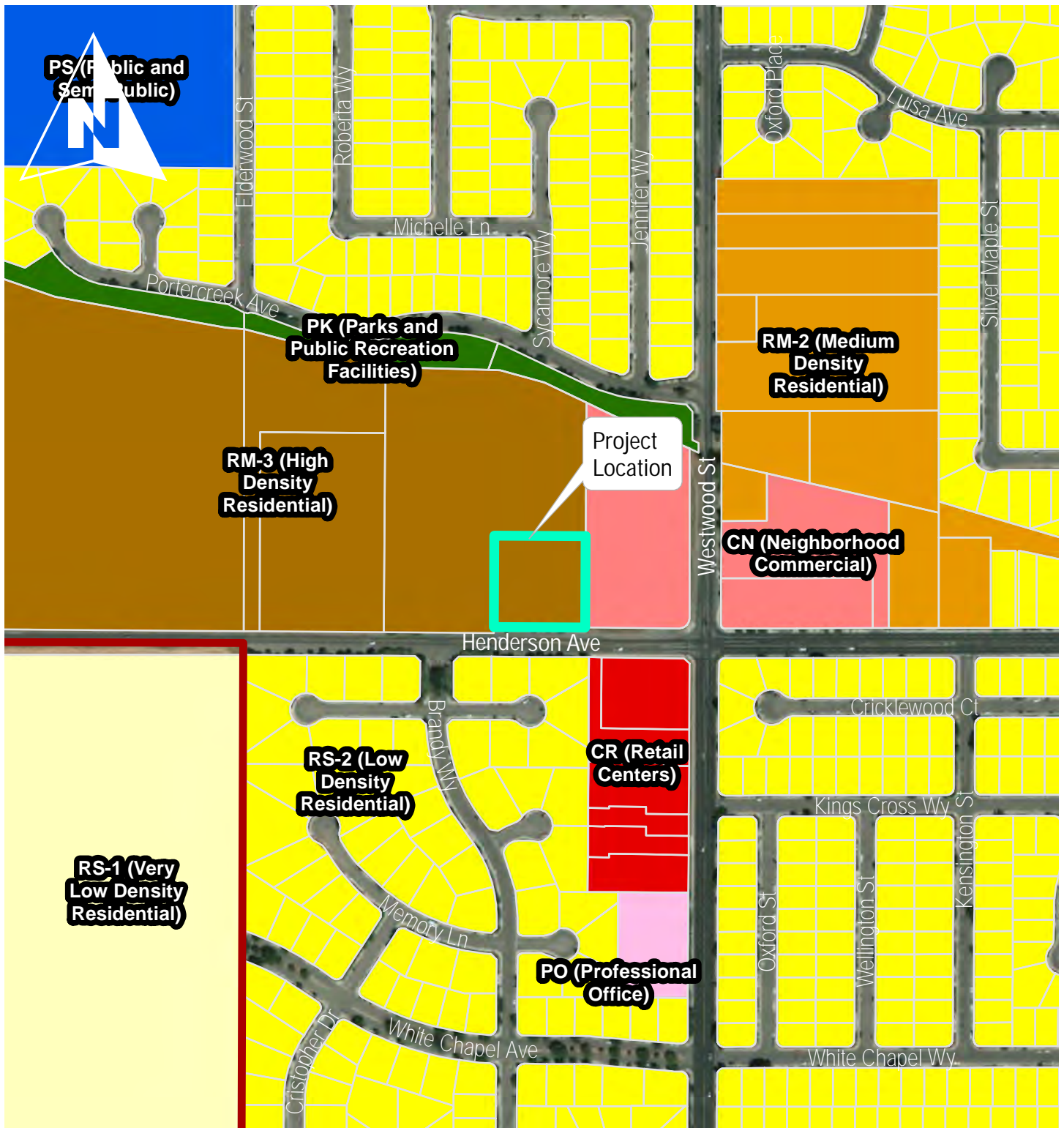
(Public and Semi- Public) for the parcel described above, more particularly shown on the attached map as Exhibit “A”.

PASSED, APPROVED AND ADOPTED this 1st day of May, 2018.

Milt Stowe, Mayor

ATTEST:
John D. Lollis, City Clerk

By: _____
Patrice Hildreth, Chief Deputy City Clerk



PRC 2018-014
Burton School District Building
@ 2440 W Henderson Ave
Zoning Land Use Map
1" = 400 ft.



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Authorization to Make Arrangements with Tulare County to Regulate all Onsite Wastewater Treatment Systems Within City Limits

SOURCE: Public Works

COMMENT: The City of Porterville is in receipt of a State Water Resources Control Board (Water Boards) letter dated February 15, 2018, in which a request was made for a Letter of Intent to comply with State Water Resources Control Board Water Quality Control's Siting, Design, Operation, and Maintenance of On-site Wastewater Treatment Systems (OWTS) Policy. A letter of response was sent to the Water Board explaining that, as the Public Works Director has limited authority when creating City of Porterville policy and code amendments, the City Council must provide direction as to how the City shall comply with the OWTS Policy.

Compliance with the OWTS policy is attainable via three separate options:

- * Option One is to make arrangements with Tulare County to regulate all OWTS within the city's incorporated boundaries;

- * Option Two is for the City to implement OWTS Policy Tier 1 as defined by the State of California and submit the required Annual Reports; and

- * Option Three is for the City to create its own Local Agency Management Program (LAMP) that must be approved by the Water Board and must be at least as stringent as the State's OWTS Policy.

Tulare County created their own LAMP which has been recently approved by the Water Boards. The approved LAMP is an amendment of Tulare County Ordinance Code as required to become consistent with the Water Boards' adopted OWTS Policy. The amendments pertained to minimum lot size, set back, and testing requirements for on-site wastewater treatment systems under Tulare County management program and locating effluent systems near surface water intake points.

The Tulare County LAMP is designed to protect groundwater sources and surface water bodies from contamination through proper design, placement, installation, maintenance and assessment of individual Septic Treatment Systems. The LAMP develops minimum standards for the treatment and ultimate disposal of sewage through the use of Septic Treatment Systems in non-sewered unincorporated areas of Tulare County. The LAMP will also

expand the ability of the Resources Management Agency & Environmental Health Division to permit and regulate alternative Septic Design Systems while protecting water quality and public health, all of which is a part of County's approved LAMP.

Tulare County has also elected to implement policies in developing an on-site wastewater management guidance manual for the design and construction of Alternate Systems as defined by Section H 101.1 of Appendix H of the 2016 Plumbing Code. The guidance manual will provide additional requirements regarding the OWTS permitting process, site evaluation requirements, and design submittal requirements, in such a manner that compliance within the relevant code chapters will be achieved.

Council is fully aware of the recent annexations that lack a municipal sanitary sewage collection system and the progress towards implementing such a system within these areas. Unfortunately, there are still large areas within the City of Porterville's jurisdiction that need to be addressed, primarily due to the series of drought related annexations. In an ideal situation, the City of Porterville would not have to comply with the Water Board's requirements, but must do so in light of these recent annexations, current city policies and by adoption of the 2016 Plumbing Code. On occasions staff will issue plumbing permits for repair of existing Septic Treatment Systems and construction of new Septic Treatment Systems for individual properties that are not within 200' of city sanitary sewer collection system. Many of the applicable Tulare County Ordinance Code amendments are consistent with city policies, providing a potential fluid interaction between the County and City. Option One, as described herein, allows for the City of Porterville to make arrangements with Tulare County to regulate on-site wastewater treatment systems within the City's jurisdiction, and is the option preferred by staff.

RECOMMENDATION: That City Council:

1. Authorize Public Works Director or designee to begin negotiations with Tulare County for the County to regulate all OWT Systems within City limits, including the annual reporting requirements; and
2. Authorize the Mayor and City Clerk to execute the attached Resolution.

ATTACHMENTS:

1. Draft Resolution
2. Letter from Water Board
3. Tulare County LAMP

Appropriated/Funded:

Review By:

Department Director:
Mike Reed, Acting Public Works Director

Final Approver: John Lollis, City Manager

RESOLUTION NO. ____-2018

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE
AFFIRMING THEIR INTENTIONS TO MAKE ARRANGEMENTS WITH TULARE
COUNTY FOR THE REGULATION OF ON-SITE WASTEWATER TREATMENT (OWT)
SYSTEMS WITHIN CITY LIMITS

WHEREAS, the Water Board has notified the City of Porterville that compliance with the State's OWT Systems Policy is mandatory; and

WHEREAS, compliance with the State's OWT Systems Policy can be achieved by making arrangements with Tulare County to manage and regulate the permits and reporting for OWT systems within City limits; and

WHEREAS, Tulare County developed their own Local Agency Management Program (LAMP) that was recently approved by the Water Board and is consistent with City policies, providing a potential fluid interaction between the County and City;

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Porterville does affirm the intentions of the City to make arrangements with Tulare County to regulate on-site wastewater treatment systems within the City's jurisdiction.

PASSED AND ADOPTED this 15th day of May, 2018.

Brian E. Ward, Mayor Pro Tem

ATTEST:
John D. Lollis, City Clerk

By: _____
Patrice Hildreth, Deputy Chief City Clerk



Central Valley Regional Water Quality Control Board

15 February 2018

CERTIFIED MAIL:
7016 2140 0000 1629 7341

Maria Castro
City of Porterville
Community Development
291 North Main Street
Porterville, CA 93257

RECEIVED

FEB 21 2018

City of Porterville
Public Works Dept

REQUEST FOR LETTER OF INTENT, ONSITE WASTEWATER TREATMENT SYSTEMS, CITY OF PORTERVILLE, TULARE COUNTY

Based on information from Nilsa Gonzales, Tulare County (County) Environmental Health Director, we understand that the City of Porterville (City) independently permits and regulates onsite wastewater treatment systems (OWTS) within its incorporated area. Therefore, pursuant to *State Water Resources Control Board Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (OWTS Policy, or Policy), the City, a subdivision of State government responsible for permitting installation and regulation of OWTS, is a Local Agency, subject to OWTS Policy standards. Pursuant to these standards, **as of 13 May 2018** the City must regulate its OWTS either under Policy Tier 1 or local codes and ordinances, whichever are more stringent, and begin submitting Annual Reports. See: https://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf

As an alternative, you can make arrangements for the County to regulate all OWTS within your incorporated boundaries. On 6 April 2018, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) will consider approval of the County's Local Agency Management Program (LAMP). Pursuant to Policy Tier 2, the LAMP allows the County to regulate OWTS with different standards than Tier 1. Under Tier 2, the City can also submit its own LAMP for similar approval.

We hereby request a **letter of intent from your office by 28 February 2018** that commits to one of three general options:

- 1) Make arrangements with Tulare County to regulate all OWTS within your incorporated boundaries,
- 2) Implement OWTS Policy Tier 1 and begin submitting Annual Reports, or
- 3) Submit a LAMP.

Please be informed, if your office opts to submit a LAMP, our staff now have insufficient remaining time to review and consider approval of the document before the **13 May 2018** OWTS Policy deadline. Under this option, the Policy would still require your office to implement Tier 1 or more stringent local codes and ordinances until Central Valley Water Board approval. For example approved LAMPs in the Central Valley, see: https://www.waterboards.ca.gov/centralvalley/water_issues/owts/lamp_reviews/ Under *Approved LAMP*, click on dates for Central Valley Water Board approved documents. The approval process generally entails detailed reviews and a publicly noticed meeting. LAMPs also require periodic renewal.

Please respond with your letter of intent to: Eric Rapport, Central Valley OWTS Policy Implementation Program lead, email erapport@waterboards.ca.gov or the footer address. You may also contact him with questions or comments, (530) 224-4998 direct.



Pamela C. Creedon
Executive Officer

EJR: db

cc: Nilsa Gonzales, Tulare County Environmental Health Director, Visalia
Denise England, Tulare County Water Resources Program Director, Visalia
Nick Wiegel, NorthStar Engineering, Chico
Scott Hatton, Central Valley Water Board, Fresno

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION R5-2018-0009

APPROVING THE LOCAL AGENCY MANAGEMENT PROGRAM
FOR
TULARE COUNTY RESOURCE MANAGEMENT AGENCY AND
TULARE COUNTY ENVIRONMENTAL HEALTH DIVISION

WHEREAS, on 19 June 2012, the State Water Resources Control Board (State Water Board) adopted Resolution No. 2012-0032, which in part approved the *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (OWTS Policy); and

WHEREAS, the OWTS Policy allows Local Agencies to propose Local Agency Management Programs (LAMPs) for California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board or Board) approval, as conditional waivers of Waste Discharge Requirements; and

WHEREAS, The OWTS Policy requires Central Valley Water Board staff to solicit comments from the State Water Board's Division of Drinking Water (DDW) regarding a LAMP's proposed setbacks and notifications to water purveyors; and

WHEREAS, on 28 November 2016 the Tulare County Resource Management Agency and Tulare County Environmental Health Division (collectively referred to as Tulare County) submitted a formal draft LAMP; and

WHEREAS, on 5 December 2016, Central Valley Water Board staff sought DDW's concurrence on proposed setbacks and notifications in the formal draft LAMP and then met with Tulare County to discuss issues; on 20 December 2016 Tulare County submitted a preliminary completeness checklist per Board staff's request; on 2 February 2017 Board staff further commented on the formal draft LAMP; and

WHEREAS, on 28 December 2017 Tulare County submitted a revised formal draft LAMP with checklist; on 17 January 2018 staff commented on the revised LAMP and sought DDW's concurrence on proposed setbacks and notifications; on 17 January 2018 staff and Tulare County resolved issues with the revised LAMP and checklist; and on 6 February 2018 DDW concurred with the proposed setbacks and notifications in the revised LAMP contingent upon minor changes; and

WHEREAS, on 9 February 2018, the Central Valley Water Board notified Tulare County and interested persons of its intent to approve the LAMP, and provided them with an opportunity for public hearing, and an opportunity to submit comments and recommendations, both on the LAMP and checklist; and

APPROVING THE LOCAL AGENCY MANAGEMENT PROGRAM FOR
TULARE COUNTY RESOURCE MANAGEMENT AGENCY AND
TULARE COUNTY ENVIRONMENTAL HEALTH DIVISION

WHEREAS, on 5 April 2018, the Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to this action.

Therefore, be it RESOLVED, that the Central Valley Water Board hereby approves the Local Agency Management Program submitted by the Tulare County Resource Management Agency and Tulare County Environmental Health Division.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the Central Valley Water Board, on 5 April 2018.

Original Signed By

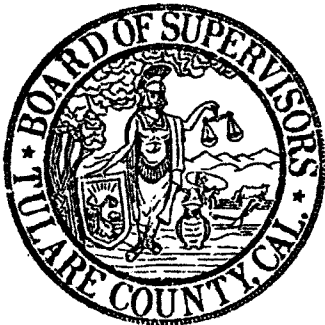
PAMELA C. CREEDON, Executive Officer

BEFORE THE BOARD OF SUPERVISORS COUNTY OF TULARE, STATE OF CALIFORNIA

IN THE MATTER OF THE LOCAL AGENCY)
MANAGEMENT PROGRAM (LAMP) AND) Resolution No. 2018-0084
AMENDMENTS TO THE ORDINANCE CODE) Ordinance No. 3524
OF TULARE COUNTY (PZC 18-001))

UPON MOTION OF SUPERVISOR CROCKER, SECONDED BY SUPERVISOR
ENNIS, THE FOLLOWING WAS ADOPTED BY THE BOARD OF SUPERVISORS, AT
AN OFFICIAL MEETING HELD FEBRUARY 6, 2018, BY THE FOLLOWING VOTE:

AYES: SUPERVISORS CROCKER, VANDER POEL, SHUKLIAN, WORTHLEY
AND ENNIS
NOES: NONE
ABSTAIN: NONE
ABSENT: NONE



ATTEST: MICHAEL C. SPATA
COUNTY ADMINISTRATIVE OFFICER/
CLERK, BOARD OF SUPERVISORS

BY: Delany Ravello
Deputy Clerk

* * * * *

On February 6, 2018:

1. Held a Public Hearing at 9:30 a.m. or shortly thereafter; and
2. Determined the Tulare County Local Agency Management Program (LAMP) for Onsite Wastewater Treatments Systems (OWTS), including required amendments to the Ordinance Code, is exempt from the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, Title 14, Division 6, Chapter 3, Article 17 (Exemption for a Certified State Regulatory Program); and
3. Adopted the proposed Tulare County Local Agency Management Program (LAMP); and
4. Waived the second reading and adopted the proposed Amendments to the Ordinance Code of Tulare County as follows:

- A. Pertaining to sections 7-01-1320 through 7-01-1740 regarding minimum lot size, set back, and testing requirements for onsite wastewater treatment systems under the local agency management program.
 - B. Pertaining to section 4-13-1520 for locating effluent systems near surface water intake points; and
- 5. Authorized the Chairman to sign any and all necessary Amendments under the Ordinance Code of Tulare County; and
- 6. Directed the Clerk of the Board to publish once in the Visalia Times-Delta newspaper the summary of the ordinance amendments with the names of the Board of Supervisors voting for and against the amendment and to post a certified copy of the full ordinance amending the Tulare County Ordinance Code No. No. 352 with the names of the Board of Supervisors voting for and against the amendment, within fifteen (15) days as required by Section 25124 et. Seq; and
- 7. Directed the Environmental Assessment Officer of the Tulare Resource Management Agency to file a Notice of Exemption with the Tulare County Clerk; and
- 8. Authorized the Director of the Resource Management Agency, or designee, to make appropriate clerical revisions to the Tulare County LAMP, Ordinance Amendments and associated project documents.

RMA

HAR
2/6/2018

**Local Agency Management Program for
Onsite Wastewater Treatment Systems
Tulare County, California**

**Tulare County
County Administrative Office**
2800 W Burrel Avenue
Visalia, CA 93291

<http://www.tularecounty.ca.gov/county/>

JANUARY 2018

Introduction and Background

Introduction

Onsite Wastewater Treatment Systems (OWTS) are currently regulated by State law. California Water Code sections 13290 et. seq. authorize a local agency to adopt or retain regulations and standards for OWTS that are at least equally protective of the public health or the environment than state laws and regulations. This LAMP has been prepared in accordance with the requirements of the State Water Resources Control Board's (SWRCB) Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems, dated June 19, 2012, also referred to as the "OWTS Policy", with the intention of obtaining the SWRCB and the Central Valley Regional Water Quality Control Board (RWQCB) delegation to regulate OWTS in the incorporated and unincorporated areas of Tulare County. This document presents the proposed Local Agency Management Program (LAMP) pertaining to the oversight of onsite wastewater treatment systems (OWTS) within the County of Tulare, California.

While the Tulare County Health Officer has designated the Director of the Public Health Services Department as a Deputy Health Officer for the purpose of enforcing State and local environmental health law, the County of Tulare Resource Management Agency (RMA) and the Environmental Health Division (EHD) of the Health and Human Services Agency are the regulatory agencies that oversees (1) the design, installation, and operation of on-site wastewater treatment systems (OWTS), (2) the management of non-discharging liquid waste systems, and (3) liquid waste dispersal requirements associated with land use modifications such as subdivisions, parcel splits, and lot line adjustments. The EHD regulates these elements within the various cities within Tulare County.

An OWTS may consist of tanks, treatment and dispersal components, and dispersal fields which are used to convey, treat, store, or dispose of potentially harmful wastewater when those wastewaters are not directly and immediately disposed of in a public sanitary sewer. The authority for the RMA and EHD to develop and adopt ordinances, regulations, and orders pertaining to environmental health and sanitation and the design and permitting of Onsite Wastewater Treatment Systems OWTS is established in the California Health and Safety Code, Section 101000 et seq. and the Ordinance Code of Tulare County Part IV, Chapters 1, 13 and 15 and Part VII, Chapters 1 and 15.

The enactment of the Porter-Cologne Water Quality Control Act in 1971 resulted in the formation of California State Regional Water Quality Control Boards (RWQCB). The RWQCBs are vested with the authority to require individuals or entities to obtain waste discharge requirements (WDRs) from the appropriate RWQCB if such individuals or entities intend to dispose of wastewater that has the potential to contaminate surface or groundwater. WDRs are designed to ensure that surface and/or groundwater is not impaired by wastewater discharges. RWQCBs may conditionally

waive WDRs for OWTS when a local enforcement agency (e.g. EHD) adopts and enforces regulations that protect water quality to a degree that is consistent with the applicable basin plan.

In accordance with the regulatory authority referenced above, the County of Tulare Board of Supervisors adopted the code entitled "California Plumbing Code, Title 24, California Code of Regulations, Part 5, 2016 Edition," together with appendices thereto, as published by the International Code Council, as adopted and modified by the State Building Standards Code by the State Building Standards Commission pursuant to Health and Safety Code section 17922, and as amended by the provisions of this Ordinance Code, is hereby referred to, adopted and made a part of this Article with the same effect as if fully set forth herein and is hereby adopted as the Plumbing Code of the County of Tulare, and all the provisions thereof shall apply to all of the unincorporated territory of the County of Tulare. Additionally, Tulare County Code Part VII, Chapters 1 and 15 regulate various aspects of OWTS design, construction and permitting and Part IV addresses setbacks from domestic and public water system wells.

In order to comply with the Requirements of the Statewide OWTS policy, Tulare County has updated the applicable County Code sections and developed a guidance manual (On-site Wastewater Management Guidance Manual (Manual)) for the design and construction of OWTS. The Manual is also intended to complement Tulare County Code Parts IV and VII by providing additional requirements regarding the OWTS permitting process, site evaluation requirements, design submittal requirements, in such a manner that compliance with these Chapters can be easily achieved.

The State Water Resources Control Board adopted the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (Policy) on June 19th, 2012 which was finalized in May 2013. Pursuant to Water Code Section 13291(b)(3), the adopted Policy describes requirements authorizing a qualified local agency to implement the adopted policy. The Policy describes four "Tiers" of Onsite Wastewater Treatment System management. Tier 2 describes the requirements for developing a "Local Area Management Program" (LAMP), which when approved, becomes the standard by which authorized local agencies regulate OWTS. The Policy requires the appropriate RWQCB -in this case the Central Valley RWQCB (RWQCB) -to review the LAMP, and when it is deemed in compliance with Policy requirements, to give its approval. An approved LAMP is equivalent to a "Conditional Waiver of Waste Discharge Requirements" for OWTS within the local agency jurisdiction. This document constitutes the Tulare County LAMP for OWTS in Tulare County. The LAMP consists of an Introduction and three parts:

Introduction

Part One: Responsibilities and Duties

Part Two: Regulation of Onsite Wastewater Treatment Systems

Part Three: Tulare County OWTS Guidance Manual

Education and Outreach and Collaboration Tulare County will make literature for proper operation and use of septic systems available to the general public in its offices and on its website.

Tulare County will collaborate with other entities regarding Regional Salt and Nutrient Management Plans as necessary.

Tulare County will coordinate with Watershed Management Groups working within the watersheds in Tulare County.

Adequacy of Capacity at Septage Receiving Stations – Tulare County septage goes to any three different facilities; City of Visalia's Waste Water Treatment Plant, City of Tulare Waste Water Treatment Facility and the City of Porterville Waste Water Treatment Facility. Each of these facilities have indicated they have adequate capacity to accommodate current and future septage receiving and processing needs for the County, and both the Tulare and Visalia facilities recently underwent significant capacity expansions.

Adequacy of LAMP per the SWRCB OWTS policy Altogether, Tulare County believes that this LAMP meets or exceeds the intent of the Policy by providing an OWTS local regulatory framework that protects public health, the environment, and groundwater resources to the greatest extent practicable.

PART ONE

RESPONSIBILITIES AND DUTIES

Section 3 of the OWTS Policy describes the Local Agency Requirements and Responsibilities. The following identifies how Tulare County will implement each section of the Policy. Tulare County will implement this Local Area Management Program (LAMP) in accordance with Tier 2 of the Policy once the LAMP is approved by the Central Valley Regional Water Quality Control Board (RWQCB.) Tulare County will adhere to the LAMP including all requirements for monitoring and reporting. Any modifications to the LAMP must first be submitted to the RWQCB with a written notice of the intended modifications. The modifications cannot be implemented until RWQCB approval has been given. At the time of submittal of this LAMP, there are no Clean Water Act section 303(d) impaired water bodies in Tulare County identified by the State Water Resources Control Board. If a 303(d) impaired water body is identified in the future, this LAMP will be revised to conform to requirements of “Tier 3 – Advanced Protection Management Programs for Impaired Areas,” as required.

Annual Report The annual report will be submitted to the RWQCB by February 1 of each year in a format prescribed by the Policy (3.3) and includes the following information:

1. Number and location of complaints, and means of resolution.
2. Application and registrations of septic tank cleaners.
3. Number, location, description and risk tier of all OWTS permits (new and replacement).
4. Number, location, description and risk tier of all variances.
5. Water Quality Monitoring identified in the OWTS Policy (9.3). G72
6. Groundwater monitoring data will be submitted in a format for inclusion into GeoTracker, and surface water monitoring shall be submitted to California Environmental Data Exchange Network (CEDEN).

Permanent Records Tulare County will retain all permanent records and will make them available within ten (10) working days upon written request by the RWQCB. All permitting actions are also available to the public on from Tulare County upon request.

Tulare County will maintain the number, location and permit description of any variance granted.

Fifth Year Report

Every fifth-year Tulare County will submit an evaluation of the monitoring program identified below in “Water Quality Data” and an assessment of whether water quality is being impacted by OWTS and identify any changes in the LAMP that may be required to address impacts from OWTS.

Notifications

Tulare County will notify within 72 hours both State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) and the owner of a public water system of any OWTS failures within the horizontal setback of a public supply well or within 2,500 feet of an intake point for a surface water treatment plant. In addition, Tulare County will notify public water systems identified by DDW prior to the issuance of an installation permit or repair permit for a OWTS if the

surface water intake is within 1,200 feet of the OWTS, is within the drainage catchment of the intake point and is located such that it may impact water quality at the intake point; or within the horizontal setback from a public well. Tulare County will maintain a contact list for each water system to make these notifications.

Referral of Systems Not Covered by the LAMP Tulare County will refer all applications of systems not covered by this LAMP (Part 2 Section 101.3) to the RWQCB for coverage under an applicable program in the RWQCB.

Water Quality Data Tulare County will maintain a water quality assessment program that consists of obtaining water quality data from the following sources:

1. Regulated small water systems in Tulare County (SWS).
2. Community Water Systems submit monitoring data to the State Water Board Division of Drinking Water; this data is accessible electronically if needed through state databases.
3. Wells within Tulare County that are monitored as part of the Statewide Groundwater Ambient Monitoring and Assessment (GAMA) program.
4. Domestic wells sampled at the request of property owner at the time of well installation.

Corrective Actions: Corrective Actions will be enforced through Tulare County Code Part I, Chapter 23, Administrative Fines. The Director of the Tulare County Resource Management Agency, the Director of the Tulare County Health and Human Services Agency, or the County Health Officer, or their designees shall have the authority and powers necessary to determine whether a violation exists.

Existing OWTS: There are OWTS countywide that predate adopted standards and within prescriptive, Tier 1 setbacks, or within setbacks. These existing systems are in Tier 0 of the OWTS Policy and are not covered under this LAMP until such time as these existing systems fail. A failing system shall mean either:

1. surfacing wastewater effluent from the dispersal field and/or wastewater backed up into plumbing fixtures because the dispersal system is not able to percolate the design flow of wastewater associated with the structure served, or
2. septic tank with compartment baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating.

Once a failed OWTS has been identified, the system will be repaired under the requirements of this LAMP and the Manual.

Variances: Variances for new installations and repairs will be in substantial conformance to the Policy, to the greatest extent practicable. Variances cannot be authorized for:

1. Cesspools of any kind or size.
2. OWTS receiving a projected flow over 3,500 gallons per day.
3. OWTS that utilize any form of effluent dispersal that discharges on or above the post

installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond.

4. Slopes greater than 30 percent without a slope stability report approved by a registered engineering geologist or civil engineer.
5. Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 1.0.
6. OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.
7. OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks.
8. Separation of the bottom of dispersal system to groundwater less than two (2) feet, except for seepage pits, which shall not be less than 10 feet.
9. Installation of new or replacement OWTS where public sewer is available. The public sewer may be considered as not available when such public sewer or any building or exterior drainage facility connected thereto is located more than 200 feet from any proposed building or exterior drainage facility on any lot or premises that abuts and is served by such public sewer. (CPC 713.4) This provision does not apply to replacement OWTS where the connection fees and construction cost are greater than twice the total cost of the replacement OWTS and the local agency determines that the discharge from the OWTS will not affect groundwater or surface water to a degree that makes it unfit for drinking or other uses.

Maintenance Districts – Maintenance Districts for the operation, maintenance and monitoring of domestic OWTS is outside the scope of this LAMP.

Assessment Program

Tulare County will maintain a water quality assessment program to determine the general operational status of OWTS and to evaluate the impact of OWTS discharges, and assess the extent to which groundwater and local surface water quality may be adversely impacted. The focus of the assessment should be areas identified with shallow soils, high domestic well usage, fractured rock, poorly drained soils, and surface waters vulnerable to pollution.

This program will help identify potential areas for changes to existing OWTS management practices. The assessment program will include monitoring and analysis of water quality data, review of complaints, variances, failures, and any information resulting from inspections. The assessment may use existing water quality data from other monitoring programs and/or establish the terms, conditions, and timing for monitoring done by the local agency. At a minimum, this assessment will include monitoring data for nitrates and pathogens, and may include data for other constituents which are needed to adequately characterize the impacts of OWTS on water quality. Other monitoring programs for which data may be used include but are not limited to any of the following:

1. Review of public system sampling reports done by the local agency or another municipality responsible for the public system.
2. Reservoir or stream water quality sampling data for rivers or other studies.

3. Water quality testing reports done at the time of new well development, if those are reported.
4. Receiving water sampling performed as a part of a NPDES permit.
5. Groundwater sampling performed as part of Waste Discharge Requirements.
6. Groundwater data collected as part of the Groundwater Ambient Monitoring and Assessment Program and available in the GeoTracker Database.

PART TWO

Regulation of Onsite Wastewater Treatment Systems

Part Two of this LAMP describes the requirements for the siting, design, and construction of OWTS in Tulare County as defined in Appendix H of the 2016 California Plumbing Code and in conformance with Tier 2 requirements.

Section 100 – General OTWS System Requirements

101.1 Applicability

Part Two of the LAMP provides general guidelines for the site evaluations, materials, design and installation of OWTS.

101.2 General Requirements

Where permitted by Section 713.0 of the 2016 California Plumbing Code, the building sewer shall be permitted to be connected to a private sewage dispersal system in accordance with the provisions of this Manual. The size of a system shall be determined on the basis of location, soil porosity, and groundwater level, and shall be designed to receive all sewage from the property. All new private sewage dispersal systems approved by the EHD and permitted by the RMA, except as otherwise approved, shall consist of a septic tank with effluent discharging into a subsurface dispersal field.

Repairs to existing private sewage dispersal systems shall consist of a septic tank with effluent discharging into a subsurface dispersal field, except as otherwise approved due to physical constraints that would prevent the use of this type of system.

The RMA shall be permitted to grant exceptions to the provisions of this LAMP for repairs of existing OWTS and for permitted structures that have been destroyed due to fire or natural disaster and that cannot be reconstructed in compliance with these provisions provided that such exceptions are the minimum necessary.

101.3 Quantity and Quality

Where the quantity or quality of the sewage is:

1. in excess of 3,500 gallons per day design flow
2. identified by the EHD as wastewater strength having a 30-day average concentration of biochemical oxygen demand (BOD) greater than 300 milligrams-per-liter (mg/L) or of total suspended solids (TSS) greater than 330 mg/L or a fats, oil, and grease (FOG)

concentration greater than 100 mg/L prior to the septic tank or other OWTS treatment component

3. required to provide nitrogen reduction to mitigate:
 - a. for setbacks from public water system intakes and wells
 - b. allowable average density requirements for new land developments utilizing private sewage dispersal systems as defined in Tier 1 of the OWTS Policy
 - c. for systems in areas with high domestic well usage
 - d. for systems in areas with OWTS density
 - e. or other condition or criteria identified by the RMA or EHD and/or the Regional Water Quality Control Board (RWQCB) including but not limited to RV dump stations;
4. Systems proposing reduced setbacks from seasonal high groundwater through the use of supplemental treatment, soil import or any other method not described in the LAMP.

such that the above system described in Section 1.2 cannot be expected to function satisfactorily for commercial, agricultural, and industrial plumbing systems; for installations where appreciable amounts of industrial or indigestible wastes are produced; for occupancies producing abnormal quantities of sewage or liquid waste; or where grease interceptors are required by other parts of this code, the method of sewage treatment and dispersal shall be first approved and permit issued by the RWQCB. Special sewage dispersal systems for minor, limited, or temporary uses shall be first approved by the RMA.

101.4 Septic Tank and Dispersal Field Systems.

Dispersal systems shall be designed to utilize the most porous or absorptive portions of the soil formation. Where the groundwater level extends to within 12 feet (3658 mm) or less of the ground surface or where the upper soil is porous and the underlying stratum is rock or impervious soil, a septic tank and dispersal field system shall be installed maintaining at least 5 feet (1524mm) from evidence of seasonal high groundwater. In no case, will the total depth of the dispersal field exceed 10 feet (3048mm) from the natural existing ground surface.

101.5 Flood Hazard Areas

Dispersal systems shall be located outside of flood hazard areas.

Exception: Where suitable sites outside of flood hazard areas are not available, dispersal systems shall be permitted to be located in flood hazard areas on sites where the effects of inundation under conditions of the design flood are minimized.

101.6 Design

Private sewage dispersal systems shall be so designed that subsurface drain fields, equivalent to not less than 100 percent of the required original system, shall be permitted to be installed where the original system cannot absorb all the sewage. No division of the lot or erection of structures on

the lot shall be made where such division or structure requires the use of a seepage pit or impairs the usefulness of the 100 percent expansion area of the subsurface drain field.

101.7 Capacity

No property shall be improved in excess of its capacity to properly disperse sewage effluent by the means provided in this LAMP and applicable Tulare County Code.

Exception: The RMA can, at its discretion, approve an exception for the repair of an OWTS through the County variance process.

101.8 Location

No private sewage dispersal system, or part thereof, shall be located in any lot other than the lot that is the site of the building or structure served by such private sewage dispersal system, nor shall any private sewage dispersal system or part thereof be located at any point having less than the minimum distances indicated in Table 101.8 of this LAMP.

Nothing contained in this code shall be construed to prohibit the use of all or part of an abutting lot to provide additional space for a private sewage dispersal system or part thereof where proper cause, transfer of ownership, or change of boundary not in violation of other requirements has been first established to the satisfaction of the RMA. The instrument recording such action shall constitute an agreement with the RMA, which shall clearly state and show that the areas so joined or used shall be maintained as a unit during the time they are so used. Such agreement shall be recorded in the office of the County Recorder as part of the conditions of ownership of said properties and shall be binding on heirs, successors, and assigns to such properties. A copy of the instrument recording such proceedings shall be filed with the RMA.

Table 101.8
Minimum Required Setback Distances for OWTs

Site Feature	Septic Tank	Dispersal Field	Seepage Pit
Non-Public Water Supply Wells and Springs	100 feet	100 feet ¹	150 feet ¹
Public Water Supply Wells and Springs	100 feet ³	150 feet ^{1, 2, 3, 10}	150 feet ^{1, 2, 3, 10}
Property line adjoining private property (with domestic well)	25 feet	50 feet	75 feet
Property line adjoining private property (with municipal water)	5 feet	5 feet	75 feet
Watercourses: -General -Between 1,200 to 2,500 feet from a Public Water System intake -Within 1,200 feet from a Public Water System intake	100 feet ^{2, 10} 100 feet 100 feet	100 feet ^{2, 10} 200 feet 400 feet	150 feet ^{2, 10} 200 feet 400 feet
Drainage way/swale, ephemeral streams, creeks, unlined irrigation ditch or canal, and other flowing or surface bodies of water	100 feet ⁴	100 feet ⁴	150 feet ⁴
Lakes, ponds, stormwater/recharge basins, and other surface water bodies	100 feet	200 feet	200 feet
Lined ditches, lined canals, lined watertight culverts	15 feet	15 feet	15 feet
Residential on-site stormwater basins	15 feet	15 feet	15 feet
Seepage Pits ⁴	5 feet	5 feet	12 feet
Dispersal field ⁴	5 feet	4 feet ⁶	5 feet
Cuts or steep embankments (from top of cut)	10 feet	4xh ^{7, 6}	4xh ^{7, 6}
Steep slopes (from break of slope)	10 feet	4xh ^{7, 6}	4xh ^{7, 6}
Unstable Land Mass ⁹	100 feet	100 feet	100 feet

1. Drainage piping shall clear domestic water supply wells by not less than 50 feet. This distance shall be permitted to be reduced to not less than 25 feet where the drainage piping is constructed of materials approved for use within a building.
2. Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high-water mark of the reservoir, lake or flowing water body. Where the effluent dispersal system is located more than 1,200 but less than 2,500 feet from a public water systems' surface water intake point, the dispersal system shall be no less than 200 feet from the high-water mark of the reservoir, lake, or flowing water body.
3. The horizontal separation distances are generally considered adequate where a significant layer of unsaturated, unconsolidated sediment less permeable than sand is encountered between ground surface and groundwater. These distances are based on present knowledge and past experience. Local conditions may require greater separation distances to ensure groundwater quality protection.
4. These minimum clear horizontal distances shall also apply between dispersal fields, seepage pits, and the mean high tide line.
5. Where dispersal fields, seepage pits, or both are installed on sloping ground, the minimum horizontal distance between any part of the leaching system and ground surface shall be 15 feet.
6. Plus 2 feet for each additional 1 foot of depth in excess of 1 foot below the bottom of the drain line.
7. h equals the height of the cut or embankment, in feet. The required setback distance shall not be less than 25 feet nor more than 100 feet.
8. Steep slope is considered to be land with a slope of > 30% and distinctly steeper (at least 20% steeper) than the slope of the adjacent tank or dispersal field area.
9. Unstable land mass or any areas subject to earth slides identified by a registered engineer or registered geologist; other setback distance are allowed, if recommended by a geotechnical report prepared by a qualified professional.
10. Where the dispersal system is greater than 20' in depth, and less than 600' from public water supply well, then the setback must be greater than the distance for two-year travel time of microbiological contaminants, as determined by qualified professional. In no case, shall the setback be less than 200'.

101.9 Building Permit

Where there is insufficient lot area or improper soil conditions for sewage dispersal for the building or land use proposed, and the RMA so finds, no building permit shall be issued and no private sewage dispersal shall be permitted. Where space or soil conditions are critical, no building permit shall be issued until engineering data and test reports satisfactory to the RMA and EHD have been submitted and approved.

101.10 Additional Requirements

Nothing contained in this LAMP shall be construed to prevent the RMA from requiring compliance with additional requirements than those contained herein, where such additional requirements are essential to maintain a safe and sanitary condition.

101.11 Alternate Systems

Alternative dispersal systems shall be permitted by special permission of the RMA. Any OWTS or component of an OWTS, except a septic tank or dosing tank, that performs additional wastewater treatment so that the effluent meets a predetermined performance requirement prior to discharge of effluent into the dispersal field are not covered under this LAMP.

Section 200 – Septic Tanks

201.1 General

The liquid capacity of septic tanks shall comply with Table 201.1 in this LAMP as determined by the number of bedrooms or apartment units in dwelling occupancies and the estimated waste/sewage design flow rate or the number of plumbing fixture units as determined from Table 702.1 of the 2016 California Plumbing Code, whichever is greater in other building occupancies.

Table 201.1 Capacity of Septic Tanks ^{1,2,3,4}		
Single Family Dwellings – Number of Bedrooms	Multiple Dwelling Units or Apartments – One Bedroom Ea.	Minimum Septic Tank Capacity (Gallons)
1 or 2	-	750
3	-	1000
4	2 units	1200
5 or 6	3	1500
-	4	2000
-	5	2250
-	6	2500
-	7	2750
-	8	3000
-	9	3250
-	10	3500
For SI units: 1 gallon= 3.785 L 3250		
Notes:		
1 Extra bedroom, 150 gallons (568 L) each.		
2 Extra dwelling units over 10: 250 gallons (946 L) each.		
3 Extra fixture units over 100: 25 gallons (94.6 L) per fixture unit.		
4 Septic tank sizes in this table include sludge storage capacity and the connection of domestic food waste disposers without further volume increase.		

<p align="center">TABLE 202 Estimate of Wastewater Design Flow Rates</p>	
Type of Business or Facility	Minimum Flow (Gallons/ Day)
Bathhouses and swimming pools	10 (per person)
Barbershop/salon	100 (per chair)
Camps (4 persons per campsite, where applicable) -with central comfort stations -with flush toilets, no showers -construction camps (semi-permanent) -day camps (no meals served) -resort camps (night and day) with limited plumbing	35 (per person) 25 (per person) 50 (per person) 15 (per person) 50 (per person)
Churches -with kitchen -without kitchen	15 (per seat) 5 (per seat)
Country clubs -per resident member -add per nonresident member present -add per employee	100 25 15 (per 8 hour shift)
Department store with public bathrooms	400
Dentist office -per wet chair -add per non-wet chair	200 50
Factories -with shower facilities, no food service or industrial wastes -without shower facilities, no food, service or industrial wastes	35 (per person, per shift) 15 (per person, per shift)
Hospitals	250 (per bed space)
Hotels or motels -with private baths -without private baths	100 (per room) 80 (per room)
Institutions other than hospitals	125 (per bed)
Laundries, self-service washing machines	500 (per machine)
Limited agricultural building	100 (per building)
Mobile home parks	250 (per space)
Parks, public picnic areas -with toilet wastes only -with bathhouses, showers and flush toilets	5 (per person) 10 (per person)
Restaurants -with multi-use utensils -with single service utensils -with bars and/or cocktail lounges	50 (per seat) 25 (per seat) 50 (per seat)
Residential Structures -Second dwelling, condominium, multi-family (duplex, triplex, etc.) -Guesthouse/Poolhouse (no kitchen)	150 per Bedroom
Retail stores -for customer -add for each employee	-Use comparable flows from similar businesses -15 (per 8-hr shift)
Shopping center	2 (per parking space)
Schools -boarding -day (without gyms, cafeterias or showers) -day (with gyms, cafeterias and showers) -day (with cafeteria, no gym or showers)	100 (per person) 15 (per person) 25 (per person) 20 (per person)
Service stations	500 for 1st pump set, 300 for each additional
Theaters -movie -drive-in	5 (per seat) 20 (per car space)

Recreational vehicle parks -without individual water and sewer hookups -with individual water sewer hookups	50 (per space) 100 (per space)
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Table 203: Application Rates as Determined from Stabilized Percolation Rate

Percolation Rate (minutes per inch)	Application Rate (gallons per day per square foot)		Percolation Rate (minutes per inch)	Application Rate (gallons per day per square foot)		Percolation Rate (minutes per inch)	Application Rate (gallons per day per square foot)
<1	Requires LAMP		31	0.522		61	0.197
1	1.2		32	0.511		62	0.194
2	1.2		33	0.5		63	0.19
3	1.2		34	0.489		64	0.187
4	1.2		35	0.478		65	0.184
5	1.2		36	0.467		66	0.18
6	0.8		37	0.456		67	0.177
7	0.8		38	0.445		68	0.174
8	0.8		39	0.434		69	0.17
9	0.8		40	0.422		70	0.167
10	0.8		41	0.411		71	0.164
11	0.786		42	0.4		72	0.16
12	0.771		43	0.389		73	0.157
13	0.757		44	0.378		74	0.154
14	0.743		45	0.367		75	0.15
15	0.729		46	0.356		76	0.147
16	0.714		47	0.345		77	0.144
17	0.7		48	0.334		78	0.14
18	0.686		49	0.323		79	0.137
19	0.671		50	0.311		80	0.133
20	0.657		51	0.3		81	0.13
21	0.643		52	0.289		82	0.127
22	0.629		53	0.278		83	0.123
23	0.614		54	0.267		84	0.12
24	0.6		55	0.256		85	0.117
25	0.589		56	0.245		86	0.113
26	0.578		57	0.234		87	0.11
27	0.567		58	0.223		88	0.107
28	0.556		59	0.212		89	0.103
29	0.545		60	0.2		90	0.1
30	0.533					>90 - 120	0.1

Table 204 Design Soil Application Rates (Source: California State Water Resources Control Board Onsite Wastewater OWTS Policy, June 19, 2012)			
Soil Texture (per the USDA soil classification system)	Soil Structure Shape	Grade	Maximum Soil Application Rate(gallons per day per square foot) ¹
Coarse Sand, Sand, Loamy Coarse Sand, loamy Sand	Single grain	Structureless	0.8
Fine Sand, Very Fine Sand, Loamy Fine Sand, loamy Very Fine Sand	Single grain	Structureless	0.4
Coarse Sandy Loam, Sandy Loam	Massive	Structureless	0.2
	Platy	Weak	0.2
		Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Fine Sandy Loam, very fine Sandy Loam	Massive	Structureless	0.2
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	0.2
		Moderate, Strong	0.4
Loam	Massive	Structureless	0.2
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Silt Loam	Massive	Structureless	Special Design
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Sandy Clay Loam, Clay Loam, Silty Clay Loam	Massive	Structureless	Special Design
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	0.2
		Moderate, Strong	0.4
Sandy Clay, Clay, or Silty Clay	Massive	Structureless	Special Design
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	Special Design
		Moderate, Strong	0.2

Section 300 – Area of Dispersal Fields and Seepage Pits

301 General

The minimum effective dispersal area in dispersal fields in square feet (ft²), and in seepage pits in square feet (ft²) of sidewall, shall be predicated on the design flow in gallons (liters) for the proposed facility found in Table 202 in this LAMP, estimated waste/sewage flow rate, or whichever is greater, and shall be in accordance with Table 204 in this LAMP as determined for the soil found in the excavation or soil application rate derived from percolation testing per Section 401.3, and shall be as follows:

1. Where dispersal fields are installed, not less than 150 square feet (13.9 m²) of trench bottom shall be provided for each system exclusive of any hard pan, rock, clay, or other impervious formations. Trench width is limited to a maximum of 36 inches. The first foot of both sidewalls underneath the pipe is not allowed to be used in calculating the square footage of the dispersal area. The sidewall area allowed in the calculation is not to exceed 36 inches when computing dispersal area per lineal foot of trench unless approved within an alternative design system.
2. Where leaching beds are permitted in lieu of trenches, the area of each such bed shall be not less than 50 percent greater than the tabular requirements for trenches. Perimeter sidewall area in excess of the required 12 inches (305 mm) and not exceeding 36 inches (914 mm) below the leach line shall be permitted to be added to the trench bottom area where computing dispersal areas.
3. No excavation for a leach line or leach bed shall be located within 5 feet (1524 mm) of evidence of the high groundwater, in excess of ten feet from the natural existing ground surface, nor to a depth where sewage is capable of contaminating the underground water stratum that is usable for domestic purposes.
4. The minimum effective dispersal area in any seepage pit shall be calculated as the excavated sidewall area below the inlet exclusive of any hardpan, rock, clay, or other impervious formations. The minimum required area of porous formation shall be provided in one or more seepage pits. No excavation shall extend within 10 feet (3048 mm) neither of the water table nor to a depth where sewage is capable of contaminating underground water stratum that is usable for domestic purpose.
5. Leaching chambers that comply with IAPMO PS 63 and bundled expanded polystyrene synthetic aggregate units that comply with IAPMO IGC 276 shall be sized using the required area calculated using Table 204 with a 1.00 multiplier.

Section 400 – Percolation Testing

401.1 Dispersal Field and Seepage Pit Sizes

Where practicable, dispersal field and seepage pit sizes shall be computed by percolation tests using the calculation method described in 401.3, unless use of Table 204 is approved by the RMA for a particular site.

401.2 Dispersal Qualities

In order to determine the dispersal qualities of seepage pits and of soils where the texture, soil structure, and/or grade is questionable as they pertain to Table 204, the proposed site shall be subjected to percolation tests acceptable to the RMA as described in the Section 401.4.

401.3 Soil Application Rates

Soil application rates will be determined using the Table 204 and/or the following equation to convert the average percolation rate (or infiltration rate) into the application rate [gallons-per-day (gpd)-persq.ft.]: where Q = application rate, t = average percolation rate.

$$Q = \frac{5}{\sqrt{t}}$$

EXAMPLE: t = 75 mpi, therefore Q = 0.58 gpd/sq.ft.

The average of all percolation tests in the leaching area shall not exceed two hundred (200) minutes per inch (mi./inch). No single percolation test shall exceed two hundred-forty (240) mi./inch.

401.4 Soil Application Rates Calculated from Percolation Tests

1. Percolation tests may be performed by a Qualified Professional as defined in Section 1300 of the LAMP, to provide additional and appropriate dispersal application rates. Percolation tests are to be performed during the site evaluation process at the discretion of either the RMA or the Qualified Professional and when soil conditions warrant.
2. When percolation tests are utilized the following requirements will apply:
 - a. Test hole preparation requirements:
 - i. for dispersal fields
 1. Unless otherwise indicated by the RMA, there shall be a minimum of 3 percolation test holes when the disposal area and replacement area are in the same proximity as determined by the RMA; 6 percolation test holes may be required when separate areas are chosen for primary and replacement systems. Additional test holes may be required by the RMA to completely identify a suitable area for a dispersal system.
 2. Percolation test holes shall be 6 inches in diameter.
 3. Unless otherwise approved by the RMA, the test hole bottom depth shall be deeper than the proposed dispersal system bottom depth and within the most restrictive strata of useable soil beneath the dispersal field.

4. The percolation test hole sidewall in the test section should be roughened to remove any smearing or compaction caused by the hole excavation process. All loose soil shall be removed and 2 inches of pea gravel or other material approved by the RMA shall be placed in the bottom of the hole.
 5. In order to prevent silting of the bottom of the hole and sidewall cave-in, a 1-inch sidewall gravel pack shall be used. The gravel pack shall be perforated plastic pipe in 12 inch (or longer) sections
- ii. for seepage pits
 1. Unless otherwise indicated by the RMA, there shall be a percolation test performed on every seepage pit proposed. Additional test holes may be required by the RMA to completely identify a suitable area for a dispersal system.
- b. Presoak requirement
 - i. The hole shall be filled with clean water to a minimum depth of 12 inches above the base of the hole. The presoak shall be maintained for a minimum of 4 hours for sandy soil with no clay and 24 hours for all other soils.
 - c. Test measurement requirements
 - i. Percolation tests shall be measured to the nearest 1/8-inch from a fixed point.
 - ii. The percolation test shall begin within 4 hours following completion of the presoak. Adjust the water level to 6 inches (12 inches for seepage pits) over the pea gravel bottom and begin the test. This may require adding or removing water to adjust the level.
 - iii. Readings shall be taken at 30-minute intervals. Refill as necessary to maintain 6 inches of water over the pea gravel bottom at each interval. Readings shall be taken until two consecutive readings do not vary by more than ten percent per reading, with a minimum of 3 readings. The last 30-minute interval is used to compute the percolation rate. If 4 inches or more of water seeps from the hole during the 30minute interval, readings may be taken at 10 minute intervals. Readings shall be taken until 2 consecutive readings do not vary by more than ten percent per reading with a minimum of 3 readings. The last 10-minute interval is used to compute the percolation rate.

Section 500 – Septic Tank Construction

501.1 Plans

The RMA will accept those products which are certified by International Association of Plumbing and Mechanical Officials (IAPMO), National Sanitation Foundation (NSF), or by other recognized listing agencies.

501.2 Design

Septic tank design shall be such as to produce a clarified effluent consistent with accepted standards and shall provide adequate space for sludge and scum accumulations.

501.3 Construction

Septic tanks shall be constructed of solid durable materials not subject to excessive corrosion or decay and shall be watertight.

501.4 Compartments

Septic tanks shall have not less than two compartments unless otherwise approved by the RMA. The inlet compartment of any septic tank shall be not less than two-thirds of the total capacity of the tank, nor less than 500 gallons (1892 L) liquid capacity, and shall be not less than 3 feet (914 mm) in width and 5 feet (1524 mm) in length. Liquid depth shall be not less than 2 1/2 feet (762 mm) nor more than 6 feet (1829 mm). The secondary compartment of a septic tank shall have a capacity of not less than 250 gallons (946 L) and a capacity not exceeding one-third of the total capacity of such tank. In septic tanks having a capacity equal or greater to 1500 gallon (5678 L), the secondary compartment shall be not less than 5 feet (1524 mm) in length.

501.5 Access

Access to each septic tank shall be provided by not less than two manholes 20 inches (508 mm) in minimum dimension or by an equivalent removable cover slab. One access manhole shall be located over the inlet and one access manhole shall be located over the outlet. Where a first compartment exceeds 12 feet (3658 mm) in length, an additional manhole shall be provided over the baffle wall.

501.6 Pipe Opening Sizes

The inlet and outlet pipe openings shall not be larger in size than the connecting sewer pipe. The vertical leg of round inlet and outlet fittings shall not be less in size than the connecting sewer pipe nor less than 4 inches (102 mm). A baffle-type fitting shall have the equivalent cross-sectional area of the connecting sewer pipe and not less than a 4 inch (102 mm) horizontal dimension where measured at the inlet and outlet pipe inverts.

501.7 Pipe Extension

The inlet and outlet pipe or baffle shall extend 4 inches (102 mm) above and not less than 12 inches (305 mm) below the water surface. The invert of the inlet pipe shall be at a level not less than 2 inches (51 mm) above the invert of the outlet pipe.

501.8 Free Vent Area

Inlet and outlet pipe fittings or baffles and compartment partitions shall have a free vent area equal to the required cross-sectional area of the house sewer or private sewer discharging therein

to provide free ventilation above the water surface from the dispersal field or seepage pit through the septic tank, house sewer, and stack to the outer air.

501.9 Sidewalls

The sidewalls shall extend not less than 9 inches (229 mm) above the liquid depth. The cover of the septic tank shall be not less than 2 inches (51 mm) above the back-vent openings.

501.10 Partitions and Baffles

Partitions or baffles between compartments shall be of solid, durable material and shall extend not less than 4 inches (102 mm) above the liquid level. The transfer port between compartments shall be a minimum size equivalent to the tank inlet, but in no case less than 4 inches (102 mm) in size, shall be installed in the inlet compartment side of the baffle so that the entry into the port is placed 65 percent to 75 percent in the depth of the liquid. Wooden baffles are prohibited.

501.11 Structural Design

The structural design of septic tanks shall comply with the following requirements:

1. Each such tank shall be structurally designed to with-stand all anticipated earth or other loads. Septic tank covers shall be capable of supporting an earth load of not less than 500 pounds per square foot (lb/ft²) (2441 kg/m²) where the maximum coverage does not exceed 3 feet (914 mm).
2. In flood hazard areas, tanks shall be anchored to counter buoyant forces during conditions of the design flood. The vent termination and service manhole of the tank shall be not less than 2 feet (610 mm) above the design flood elevation or fitted with covers designed to prevent the inflow of floodwater or the outflow of the contents of the tanks during conditions of the design flood.

501.12 Manholes

Septic tanks shall have weathertight manholes accessible by extending the manhole openings to grade if installed under concrete or blacktop paving, or within 6-inches of finished grade if under soil cover in a manner acceptable to the RMA.

501.13 Materials.

The materials used for constructing a septic tank shall be in accordance with the following:

1. Materials used in constructing a concrete septic tank shall be in accordance with applicable standards.
2. The use of steel septic tank shall be prohibited.

3. Septic tanks constructed of alternate materials shall be permitted to be approved by the RMA where in accordance with approved applicable standards. Wooden septic tanks shall be prohibited.

501.14 Prefabricated Septic Tanks

Prefabricated septic tanks shall comply with the following requirements:

1. Manufactured or prefabricated septic tanks shall comply with approved applicable standards and be listed by a recognized listing agency. Prefabricated bituminous coated septic tanks shall comply with UL 70.

Section 600 Dispersal Fields

H 601.1 Distribution Lines

Distribution lines shall be constructed of perforated high- density polyethylene pipe, perforated ABS pipe, perforated PVC pipe, or other approved materials, provided that approved openings are available for distribution of the effluent into the trench area.

601.2 Filter Material

Before placing filter material or drain lines in a prepared excavation, smeared or compacted surfaces shall be removed from trenches by raking to a depth of 1 inch (25.4 mm) and the loose material removed. Clean stone, gravel, slag, or similar filter material acceptable to the RMA, varying in size from 3/4 of an inch to 2 1/2 inches (19.1 mm to 64 mm), shall be placed in the trench to the depth and grade required by this section. Drain pipe shall be placed on filter material in an approved manner.

The drain lines shall then be covered with filter material to the minimum depth required by this section, and this material covered with untreated building paper, straw, or similar porous material to prevent closure of voids with earth backfill. No earth backfill shall be placed over the filter material cover until after inspection and acceptance.

Exception: Listed or approved plastic leaching chambers and bundled expanded polystyrene synthetic aggregate units shall be permitted to be used in lieu of pipe and filter material. Chambers and bundled expanded polystyrene, synthetic aggregate unit installations shall follow the rules for dispersal fields, where applicable, and shall be in accordance with the manufacturer's instructions.

601.3 Grade Board

A grade board staked in the trench to the depth of filter material shall be utilized where the distribution line is constructed with drain tile or a flexible pipe material that will not maintain alignment without continuous support.

601.4 Seepage Pits

Where seepage pits are used in combination with dispersal fields, the filter material in the trenches shall terminate not less than 5 feet (1524 mm) from the pit excavation, and the line extending from such points to the seepage pit shall be approved pipe with water-tight joints.

601.5 Distribution Boxes

Where two or more drain lines are installed, an approved distribution box of sufficient size to receive lateral lines shall be installed at the head of each dispersal field. The inverts of outlets shall be level, and the invert of the inlet shall be not less than 1 inch (25.4 mm) above the outlets. Distribution boxes shall be designed to ensure equal flow and shall be installed on a level concrete slab in natural or compacted soil.

601.6 Laterals

Laterals from a distribution box to the dispersal field shall be approved pipe with watertight joints. Multiple dispersal field laterals, where practicable, shall be of uniform length.

601.7 Connections

Connections between a septic tank and a distribution box shall be laid with approved pipe with watertight joints on natural ground or compacted fill.

601.8 Dosing Tanks

Where the quantity of sewage exceeds the amount that is permitted to be disposed in 500 lineal feet (152.4 m) of leach line, a dosing tank shall be used. Dosing tanks shall be equipped with an automatic siphon or pump that discharges the tank once every 3 or 4 hours. The tank shall have a capacity equal to 60 to 75 percent of the interior capacity of the pipe to be dosed at one time. Where the total length of pipe exceeds 1000 lineal feet (304.8 m), the dosing tank shall be provided with two siphons or pumps dosing alternately and each serving one half of the leach field.

601.9 Construction

Dispersal fields shall be constructed in accordance with Table 601.9.

Minimum spacing between trenches or leaching beds shall be not less than 4 feet (1219 mm) plus 2 feet (610 mm) for each additional foot (305 mm) of depth in excess of 1 foot (305 mm) below the bottom of the drain line. Distribution drain lines in leaching beds shall be not more than 6 feet (1829 mm) apart on centers, and no part of the perimeter of the leaching bed shall exceed 3 feet (914 mm) from a distribution drain line. Dispersal fields, trenches, and leaching beds shall not be paved over or covered by concrete or a material that is capable of reducing or inhibiting a possible evaporation of sewer effluent.

<p align="center">TABLE 601.9 GENERAL DISPOSAL FIELD REQUIREMENTS</p>		
	MINIMUM	MAXIMUM
Number of drain lines per field	2	–
Length of each line	–	100 feet
Bottom width of trench	18 inches	36 inches
Spacing of lines, center-to-center	6 feet	–
Depth of earth cover of lines (preferred -18 inches)	12 inches	9 feet
Grade of lines	Level	3 inches per 100 feet
Filter material under drain lines	12	–
Filter material over drain lines	2 inches	–

601.10 Joints

Where necessary on sloping ground to prevent excessive line slope, leach lines or leach beds shall be stepped. The lines between each horizontal section shall be made with watertight joints and shall be designed so each horizontal leaching trench or bed shall be utilized to the maximum capacity before the effluent shall pass to the next lower leach line or bed. The lines between each horizontal leaching section shall be made with approved watertight joints and installed on natural or unfilled ground.

Section 700 Seepage Pits

701.1 Approval

Seepage pit systems are systems designed to be used in areas of the County where subsoils are clay, clay pan, fragipan, hard pan and do not offer opportunities to install typical leach trench disposal type of systems. It is generally acknowledged that the use of these systems addresses only disposal requirements as opposed to treatment and disposal.

1. Seepage pits shall be used only to service a single-family residence and only when the site is not approvable for installation of a standard or other special system.
2. At least one test boring to groundwater or ten (10) feet below the proposed design depth of the pits, whichever is shallower, shall be made in the lowest area of the proposed disposal area to evaluate soils. Additional test pits may be required at the discretion of the Division to determine the suitability of the site for on-site sewage disposal. All test borings shall be witnessed by the consultant.
3. Use of seepage pits in all other situations will require permitting approval through the RWQCB.

701.2 Capacity

The capacity of seepage pits shall be based on the quantity of liquid waste discharging therein and on the character and porosity of the surrounding soil, and shall be in accordance with Section 301.0 of the Manual.

701.3 Multiple Installations

Multiple seepage pit installations shall be served through an approved distribution box or be connected in series by means of a watertight connection laid on undistributed or compacted soil. The outlet from the pit shall have an approved vented leg fitting extending not less than 12 inches (305 mm) below the inlet fitting.

701.4 Construction

A seepage pit shall be circular in shape and shall have an excavated diameter of not less than 3 feet (1219 mm) and no more than 5 feet (2,031 mm). The seepage pit shall be filled up to the concrete collar with leach rock or cobbles that are a minimum of three quarters (3/4") inches (19.1 mm) and two and one half (2,5") inches (64 mm) in diameter in any dimension or with other filter material approved by the RMA. The cobbles or filter material shall be washed clean so as to be free of debris and dirt.

701.7 Sidewall

A seepage pit shall have a minimum sidewall of 10 feet (3048 mm) below the inlet.

701.8 Lid

Approved-type one or two-piece reinforced concrete slabs of not less than 2500 lb/in² (1 757 674 kg/m²) minimum compressive strength, not less than 5 inches (127 mm) thick, and designed to support an earth load of not less than 400 pounds per square foot (lb/ft²) (1953 kg/m²). Each such cover shall be provided with a 9 inch (229 mm) minimum inspection hole with plug or cover and shall be coated on the underside with an approved bituminous or other nonpermeable protective compound.

701.9 Location

The top of the cover shall be not less than 18 inches (457 mm) but not exceed 4 feet (1219 mm) below the surface of the ground.

701.10 Inlet Fitting A

90 degree "Tee" fitting or (approved equal) vented inlet fitting shall be provided in the seepage pit so arranged as to prevent the inflow from damaging the sidewall. The fitting shall be situated below the inspection hole in the lid.

Exception: Where using a one-concrete slab cover inlet, fitting shall be permitted to be a one-fourth bend fitting discharging through an opening in the top of the slab cover. On multiple seepage pit installations, the outlet fittings shall comply with Section 701.2 of this Manual.

Section 800 Cesspools

801.1 Cesspools

Cesspools are prohibited in the OWTS Policy. Existing cesspools are to be destroyed and replaced within 90 days with an appropriate permitted OWTS.

Section 900 Commercial or Industrial Special Liquid-Waste Dispersal

901.1 Interceptor.

Where liquid wastes contain excessive amounts of grease or lint that affect the operation of a private sewage dispersal system, an interceptor for such grease or lint shall be installed.

901.2 Installation

Installation of such interceptors shall comply with Section 1009.0 of this code, and their location shall comply with Table 101.8 of this LAMP.

901.3 Sampling Box

A sampling box shall be installed where required by the EHD.

901.4 Design and Structural Requirement

Interceptors shall be of approved design and be not less than two compartments. Structural requirements shall comply with Section H 501.0 of this appendix.

901.5 Location

Interceptors shall be located as close to the source as possible and be accessible for servicing. Necessary manholes for servicing shall be at grade level and be gastight.

901.6 Waste Discharge

Waste discharge from interceptors shall be permitted to be connected to a septic tank or other primary system or be disposed into a separate dispersal system.

901.7 Design Criteria A formula shall be permitted to be adapted to other types of occupancies with similar wastes.

Section 1000 Inspection and Testing

1001.1 Inspection

Inspection requirements shall comply with the following:

1. Applicable provisions of Section 105.0 of this code and this appendix shall be required. Plans shall be required in accordance with Section 103.3 of this code.

2. System components shall be properly identified as to manufacturer. Septic tanks or other primary systems shall have the rated capacity permanently marked on the unit.
3. Septic tanks or other primary systems shall be installed on dry, level, well-compacted soil.
4. Where design is predicated on soil tests, the system shall be installed at the same location and depth as the tested area.

1001.2 Testing

Testing requirements shall comply with the following:

1. Septic tanks or other primary components shall be filled with water to flow line prior to requesting inspection. Seams or joints shall be left exposed (except the bottom), and the tank shall remain watertight.
2. A flow test shall be performed through the system to the point of effluent dispersal. All lines and components shall be watertight. Capacities, required air space, and fittings shall comply with the provisions set forth in this appendix.

Section 1100 Abandoned Sewers and Sewage Dispersal Facilities

1101.1 Plugged and Capped

An abandoned building (house) sewer, or part thereof, shall be plugged or capped in an approved manner within 5 feet (1524 mm) of the property line.

1101.2 Fill Material

A cesspool, a septic tank, or a seepage pit that has been abandoned or has been discontinued otherwise from further use, or to which no waste or soil pipe from a plumbing fixture is connected, shall have the sewage removed therefrom and be completely filled with the earth, sand, gravel, concrete, or other approved material.

1101.3 Filling Requirements

The top cover or arch over the cesspool, septic tank, or seepage pit shall be removed before filling. The bottom of any tank in the system shall be perforated, such that it is no longer capable of holding liquid. Inspection of the destruction of the tank must occur prior to the filling of the tank. The filling shall not extend above the top of the vertical portions of the sidewalls or above the level of any outlet pipe until inspection has been called and the cesspool, septic tank, or seepage pit has been inspected. After such inspection, the cesspool, septic tank, or seepage pit shall be filled to the level of the top of the ground.

1101.4 Owner

No person owning or controlling a cesspool, septic tank, or seepage pit on the premises of such person or in that portion of any public street, alley, or other public property abutting such premises shall fail, refuse, or neglect to be in accordance with the provisions of this section or upon receipt of notice so to be in accordance with the RMA.

1101.5 Permittee

Where dispersal facilities are abandoned consequent to connecting any premises with the public sewer, the permittee making the connection shall fill all abandoned facilities in accordance with the RMA within 30 days from the time of connecting to the public sewer.

Section 1200 Drawings and Specifications

1201.1 General

The RMA shall be permitted to require the following information before a permit is issued for a private sewage dispersal system:

1. Plot plan drawn to scale, completely dimensioned, of the parcel and extending at least 150 feet past the property line, showing direction and approximate slope of surface, location of present or proposed retaining walls, drainage channels, water supply lines or wells, paved areas and structures on the plot, number of bedrooms or plumbing fixtures in each structure, and location of the private sewage dispersal system with relation to lot lines and structures.
2. Recommended method of sewage treatment
3. Estimated sewage flow
 - a. Designs for commercial applications shall provide calculations based upon both fixture units and proposed occupancy, for which the final design shall utilize the more conservative calculation.
 - b. Average soil permeability-percolation test results
 - c. Applicable soil application rate [gallons per day per square feet (gpd/sq.ft.)] based on soil group in Table 203 or percolation rates per Section 401.4
 - d. Minimum capacity of septic tank
 - e. With or without garbage disposal (grinder)
 - f. Dispersal Trench /Seepage Pit construction
 - g. Width
 - h. Total depth
 - i. Depth of leach line or inlet to seepage pit
 - j. Spacing between trenches or pits
 - k. Venting system (if required)
 - l. Total dispersal area requirements
 - m. Dispersal area per linear feet allowed or dispersal area provided per pit
 - n. Required total length of dispersal trench or number of pits
 - o. Area of house and number of bedrooms
4. Details of construction necessary to ensure compliance with the requirements of this LAMP together with a full description of the complete installation including quality, kind, and grade of materials, equipment, construction, workmanship, and methods of assembly and installation.
5. A log of soil formations and groundwater levels as determined by test holes prepared by the qualified professional that are dug in close proximity to a proposed seepage pit or

dispersal field, together with a statement of water dispersal characteristics of the soil at the proposed site, as determined by approved percolation tests.

1201.1 Drawing and Specification Validity

All drawings and specifications shall be signed and stamped as appropriate by a Qualified Professional. Submittals will be valid for one-year from the date of submittal to the County.

Section 1300 Site Evaluations/Sewage Feasibility

1300.1 General

Site evaluations are required for approval of all parcel and subdivision maps and for construction of on-site wastewater systems.

1301.1 Site Preparation and Application

1. With the exception of Water Well Reports and complaint information, RMA parcel files are accessible to the public and customers are encouraged to review their property file before applying for a Site Evaluation.
2. Site Evaluation applications will only be accepted when determined by the RMA to be complete, including the following information:
 - a. Property Identification \Property owner
 - i. Address of proposed/existing residences, if assigned
 - ii. Assessor's parcel number (APN)
 - iii. Narrative describing the basis of the Site Evaluation submittal, which shall include reference to any other related County projects, if applicable.
 - b. Property Characteristics
 - i. Area of the lot (acreage)
 - ii. Topographic relief
 - iii. Vegetation
 - iv. Drainage(s), Lakes, ponds, or reservoirs & flood zone plain/zone info.
 - v. Map should show the following for the subject parcel and within 150 feet on the adjacent parcel(s.)
 1. property boundaries
 2. proposed and existing water well location(s) on the subject parcel
 3. home site
 4. driveway(s) and parking area(s)
 5. out buildings
 6. proposed percolation test locations if any
 7. proposed test pit locations
 8. proposed and existing dispersal fields
 9. proposed and existing expansion area(s)
 10. stream courses, shallow or outcropping bedrock
 11. potential areas of shallow groundwater
 12. potential areas of inundation

13. and any other factors which may limit sewage dispersal.

1302.1 Soil Test Hole Requirements

1. Unless otherwise approved by the RMA, a minimum of 2 test holes will be required for the development of a new parcel, with at least one hole excavated in the primary and one hole excavated in the replacement dispersal areas. At the discretion of the RMA, additional test holes may be needed to adequately characterize site conditions or fewer test holes may be allowed based on considerations such as space limitations on smaller parcels or uniformity of area soil characteristics.
2. Test holes must be dug with a backhoe. Soil descriptions may be supplemented with soil boring information, but will not satisfy backhoe test hole requirements.
3. Test holes must be dug a minimum of 5 feet deeper than the proposed bottom of the dispersal system. If a seepage pit is proposed, it will require a test boring to the minimum depth of 10 feet deeper than the proposed design depth.

1303.1 Site Inspection and Evaluation

EHD staff will evaluate the Site Inspection Report submitted by the qualified professional and make an initial determination of whether site conditions are suitable for coverage under the LAMP.

1304.1 Site Evaluation Reports

1. Site Evaluation reports will be deemed to be complete by the EHD when the following additional information is supplied:
 - a. Soil Characteristics
 - i. Perc Test Results: Information should include:
 - 1) a description of the soil (soil group, color, texture, percentage of rock, etc.)
 - 2) evidence of seasonal high groundwater
2. Percolation Test Results: The number of percolation tests performed shall be adequate to demonstrate a representative range of percolation rates within the primary dispersal area as well as the required 100% expansion area.
3. Maximum wastewater flow permitted on the site based on nitrogen loading requirements in section 1400.

1305.1 Site Evaluation Expiration

Site Evaluations will be valid for the lifetime of the parcel as it exists when the evaluation was conducted.

1306.1 Qualified Professional

1. A qualified professional is required for all site evaluations and design submittals. For the purposes of this LAMP, a qualified professional is defined as one of the following:
 - a. Building Inspectors demonstrating knowledge of OWTS by completing coursework relative to the inspection, design and installation of OWTS.

- i. Examples of coursework include but are not Limited to:
 - 1. Sacramento State Water Programs Small Wastewater System Operation and Maintenance, Volume I and II.
 - 2. NAWT/COWA Inspector and O&M Courses
- b. California Professional Engineer;
- c. California Engineering Geologist;
- d. California Professional Hydrogeologist;
- e. Registered Environmental Health Specialist (REHS)
- f. Soil Science of America Certified Soil Scientists

Section 1400 Nitrogen Loading Analysis

1400.1 General

Septic system density will be limited to one system per acre. Any new development or secondary dwellings will require a nitrogen loading analysis by a qualified professional, demonstrating to the RMA, that the regional characteristics are such that an exception can be made. Supplemental treatment systems for nitrogen reduction will be referred to the RWQCB for permitting.

Consideration of OWTS density, parcel size and potential cumulative OWTS impact issues (e.g., groundwater mounding, nitrate loading) is addressed in Tulare County primarily through Ordinance requirements under Part VII which imposes absorption field size requirements to minimize the cumulative impacts, taking into consideration factors such as constituent levels (e.g., nitrogen content) in the wastewater, the volume of wastewater flow, and the density of OWTS discharges in a given area.



CITY COUNCIL AGENDA – MAY 15, 2018

SUBJECT: Status and Review of Declaration of Local Emergency

SOURCE: City Manager's Office

COMMENT: Governor Brown issued Executive Order B-29-15 on Wednesday, April 1, 2015, which established drought-related mandates and restrictions in addition to those already stipulated in previous Executive Orders B-26-14 and B-28-14. Of significance, the Governor directed the State Water Resources Control Board to impose restrictions to achieve a statewide 25% reduction in potable urban water usage through February 28, 2016, in comparison to the amount used in 2013, and with consideration given to per capita usage as a basis. The Governor further directed the Board to impose additional restrictions on commercial, industrial, and institutional properties with significant landscaping (cemeteries, golf courses, parks, schools, etc.), to also achieve a 25% reduction in potable water usage. Also of significance, the Board was directed to prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or micro-spray systems.

On November 13, 2015, Governor Brown issued Executive Order B-36-15, which extends emergency conservation regulations through October 2016, if drought conditions persist through January 2016. On February 2, 2016, the State Water Resources Control Board adopted extended emergency water conservation regulations, to be in effect March 1 through October 31, 2016. The City of Porterville benefited somewhat from the extended regulations as the City's water conservation rate has been reduced from 32% to 26%, due to new water connections that have been made and population served (4%), as well as a new climate adjustment factor that was considered (2%).

On May 9, 2016, Governor Brown issued Executive Order B-37-16 ("Making Water Conservation a California Way of Life"), which directs the State Water Resources Control Board to establish new regulations making permanent the emergency conservation regulations. On May 18, 2016, the State Water Resources Control Board adopted a statewide water conservation approach that replaces the percentage reduction-based water conservation standard with a localized "stress test" approach that mandates urban water suppliers act immediately to ensure at least a three-year supply of water to their customers under continued drought conditions.

On April 7, 2017, Governor Brown issued Executive Order B-40-17, which ended the drought state of emergency in most of California, with the exception of Fresno, Kings, Tulare and Tuolumne counties where emergency water supply

and reliability projects are continuing toward addressing diminishing groundwater supplies. The Order maintains monthly reporting requirements and prohibitions on wasteful practices. It is anticipated that the Governor will end the drought state of emergency in the four remaining counties in the near future.

At its last meeting on May 1, 2018, the City Council took action in the continued affirmation of the adoption of a Resolution of Declaration of Local Emergency due to local residences within the city having been identified as having wells that are now dry as a result of the drought. Twenty-six (26) residences within the city have been determined to have dry wells, for which City staff submitted a Mutual Aid Request to Tulare County OES to initiate the household tank program for identified properties within the city where wells are dry and challenged for permanent connection. City, County, State and non-profit partner representatives have continued to discuss solutions toward addressing these challenged residences given the State is expected to end its drought emergency funding. The State had committed funding through June 30, 2018 for non-profit agencies to continue drought-related activities, which Self-Help Enterprises has continued the household tank program locally. Self-Help has recently notified the affected residences that due to lack of committed State funding, the water delivery program will cease effective June 30, 2018. Assemblyman Joaquin Arambula (Fresno) has requested of the Assembly Budget Committee the appropriation of \$3.5 million in the State's coming fiscal year budget to continue to support the approximate 300 residences in the Central Valley that still have dry wells and receive temporary water deliveries. City staff remains concerned about the lack of continued support for the affected City residences while the extension of water mains and permanent connections will likely not be completed for approximately a year.

Representatives for the City, County, State (CalOES, DDW, DWR, and SWB) and non-profit partners have continued to meet in support of the long-term permanent water connection project for the entire East Porterville area and the estimated 1,800 expected future connections. DWR identified 423 residential units in the East Porterville area (381 of which are in the City's Urban Development Boundary), that were served by the County's Household Tank Program and desired by the State to be connected to the City's water distribution system as soon as possible. DWR has completed a significant City waterline extension project to permanently connect those 423 residential units to the City's water system (considered Phase I of the project). To provide source water for the DWR extension project, CalOES desired to expeditiously connect the new well on Olive Avenue to the City's water system instead of being first equipped as a filling station. Given the new well has an estimated water production value of 800 gallons per minute, as well as a SWB assumed 1.5 gallons per minute per residence, the new well could effectively serve up to 500 single-family residential units. The City indicated its significant interest that the E. Vandalia Avenue area and its 80 residential units be included in the water connection project, to which the State was agreeable.

Given CalOES has paid for the development of the new well, and its connection to the City's water system, the City will be required under "Drought

Redundancy and Resiliency Provisions" to make available to the State up to three million gallons of water per month without charge for emergency purposes.

To proceed with the connection of the new well to the City's water system and the 500 East Porterville and E. Vandalia Avenue residential units, the City Council approved modifications to the Draft Agreement between the City and County at its meeting on April 5, 2016, which the County Board of Supervisors subsequently approved at their meeting on May 10, 2016.

A Memorandum of Understanding between the State, County, and City on the East Porterville permanent water connection project was approved by the Council during a Special Meeting on Tuesday, June 21, 2016, and approved by the Board of Supervisors on Tuesday, June 28, 2016. With the approval of the MOU, the State began the permanent connection of approximately 40 homes that are located along existing City water mains. Subsequently, the State officially requested that the City approve the connection of an additional 30 residences as part of the first immediate connections, for up to a total of 70, which the Council approved at its meeting on August 2, 2016.

In regards to the new well's development and connection to the City's water distribution system, the Board of Supervisors awarded the contract for equipping and connecting the new well at their meeting of Tuesday, August 16, 2016, and construction activities commenced the week of October 10, 2016. County staff had previously indicated that the well would be in service and connected to the City's system no later than December 2016, however, the well was operational and connected to the City's water distribution as of Friday, February 17, 2017. Given the delay in the well's completion and connection, DWR requested that the City Council consider allowing the connection of residences as they become prepared for connection, to which the Council was receptive, and a Draft MOU Amendment was approved by the Council at its meeting on December 6, 2016, and subsequently approved by the Board of Supervisors at its meeting on December 20, 2016. City staff is currently working with County staff toward the transfer of the well's ownership from the County to the City.

As of Friday, March 31, 2017, the date the State established as the final day for property owners to complete the registration process to participate in the State-funded connection program opportunity, of the 1,017 eligible developed residential properties identified by the State for connection, 722 completed the required Extra-Territorial Services Agreement, leaving 295 developed residential properties non-responsive to this unique connection program, 23 of which were reported as having either dry or diminishing capacity wells. On February 6, 2018, the final residential connection was made of the approximate eligible 800 residences in East Porterville to the City's water system.

County OES and the State Division of Drinking Water (DDW) have reported to the City that the Central Mutual Water Company, located south of the city and south of Gibbons Avenue, has had its well run dry and desires an immediate

emergency connection to the City's water system to serve the 41 connections currently without water. DDW is wishing to support a financial application to upgrade the small water system to City standards (new water lines, meters ,etc.), and to sponsor an Urban Development Boundary (UDB) Amendment application to Tulare County Local Agency Formation Commission (LAFCO), given this area is currently outside the City's UDB but within the City's Urban Area Boundary (UAB). Given several private wells have run dry in this area, DDW is also attempting to sponsor their connection to the City's water system. For source water capacity for the connections, DWR will include these new connections within the East Porterville water connection capacity development projects. At its Special meeting on August 30th, the City Council directed staff to proceed with the immediate emergency connection of the Central water system, with the permanent connection of the system contingent upon an Agreement with DDW to the sponsorship conditions they have offered.

State Division of Drinking Water (DDW) has also reported to the City that the Del Oro East Plano water system, located on Paul Street (southeast of the intersection of Plano Street and Worth Avenue), is experiencing problems with its existing well and have implemented severe water restrictions. The East Plano water system serves 14 residences and approximately 45 people. DDW is wishing to provide financial support to upgrade the small water system to City standards (new water lines, meters ,etc.), and for source water capacity for the connections, DDW would need to either pay appropriate fees and/or develop a capacity development project. The Council is aware that the Del Oro Grandview Gardens water system (north of W. North Grand Avenue) is also experiencing significant issues, and DDW may seek their future consolidation with the City's water system as well.

City staff continues to coordinate with Self-Help Enterprises and State representatives toward the extension of water mains to serve all residential properties within City limits and the city's periphery that are currently participating in the County's Household Tank Program. The two main areas of focus are N. Cobb Street (northwest of State Route 65 and Pioneer Avenue), and S. Cloverleaf Street (southeast of State Route 65 and Olive Avenue). The State has maintained its commitment to grant-fund the necessary infrastructure and connection fees, providing an official funding letter to the City on January 18, 2018, which commits up to \$2.81 million in funding until December 31, 2019.

RECOMMENDATION: That the City Council receive the report of status and review of the Declaration of Local Emergency and determine the need exists to continue said Declaration.

ATTACHMENTS:

1. Resolution 49-2015 - Declaration of Local Emergency
2. City-County Well Agreement
3. Memorandum of Understanding
4. Memorandum of Understanding Draft Amendment
5. SWRCB Letter Dated November 29, 2017
6. DWR Letter Dated January 18, 2018

7. Governor Brown Executive Order

Appropriated/Funded:

Review By:

Department Director:

Final Approver: John Lollis, City Manager

RESOLUTION NO. 49-2015

A RESOLUTION OF THE CITY COUNCIL OF
THE CITY OF PORTERVILLE DECLARING A DROUGHT EMERGENCY
WITHIN THE CITY OF PORTERVILLE

WHEREAS: in response to the ongoing severe drought, the State Water Resources Control Board approved an emergency regulation to ensure water agencies, their customers, and state residents increase water conservation in urban settings or face possible fines or other enforcement; and

WHEREAS: as we enter the fourth year of severe drought, long-term forecasts indicate no relief of the current drought conditions, and suggest a warmer-than-average summer, resulting in increased domestic demand for water; and

WHEREAS: public and private potable water supplies continue to be threatened due to decreasing supplies of groundwater caused by the precipitation deficit and an extended state of groundwater overdraft; and

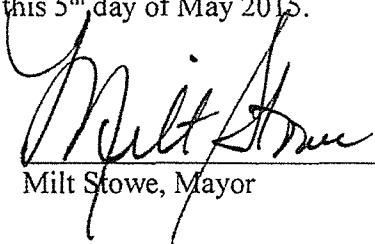
WHEREAS: the long-term ramifications of the current drought will have a significant impact on the city of Porterville and potentially pose a danger to the health and welfare of its residents; and

NOW, THEREFORE, BE IT RESOLVED: that the City Council of the City of Porterville does hereby proclaim that, due to drought conditions, a Local Emergency now exists in the city of Porterville and shall remain in effect for the duration of the emergency; and

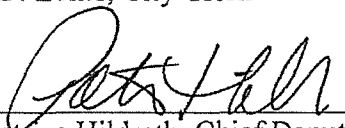
BE IT FURTHER RESOLVED: that the City Council of the City of Porterville requests the Governor and California Department of Water Resources make available California Disaster Assistance Act funding for the State of Local Emergency proclaimed on May 5, 2015, and seek all available forms of Federal assistance, to include a Presidential Declaration of Emergency and Individual Assistance and Public Assistance programs as applicable; and

BE IT FURTHER RESOLVED: that a copy of this resolution be forwarded to the State Director of the Office of Emergency Services.

PASSED, APPROVED, AND ADOPTED this 5th day of May 2015.


Milt Stowe, Mayor

ATTEST:
John D. Lollis, City Clerk


By: Patrice Hildreth, Chief Deputy City Clerk

TULARE COUNTY – CITY OF PORTERVILLE WELL AGREEMENT

THIS AGREEMENT is entered into this day of, May 10, 2016, between the COUNTY OF TULARE, referred to as COUNTY, and the CITY OF PORTERVILLE, referred to as CITY, with reference to the following:

- A. WHEREAS, East Porterville/Doyle Colony area properties within the COUNTY's jurisdiction and within the CITY's Urban Development Boundary are experiencing serious water shortages due to the historical drought conditions. Attached hereto as Exhibit 'A' is a map defining the East Porterville/Doyle Colony and Vandalia areas; and
- B. WHEREAS, CITY and COUNTY have been and are collaborating to jointly develop a new municipal water well; and
- C. WHEREAS, COUNTY shall secure complete funding for a new well to be solely owned, operated and maintained by the CITY for the purpose of providing long-term capacity to enable permanent water connections to properties that comply with CITY'S Annexation and Extension of Municipal Services policy, with certain exceptions for specific properties in excess of the maximum lot size. These procedures are defined by two Resolutions, 74-2014 and 19-2016, which are attached hereto as Exhibit 'B'; and
- D. WHEREAS, the COUNTY owns a parcel at the southeast corner of the Tule River and Olive Avenue (APN 240-120-017), represented in Exhibit 'C', and has drilled a municipal supply well, and will equip said well utilizing CITY standards, after which the COUNTY shall convey the land to CITY at a cost of \$1; and
- E. WHEREAS, CITY operates an existing municipal water system, with limited infrastructure already established in the East Porterville/Doyle Colony and Vandalia areas, and has experience and qualifications necessary to provide such services; and
- F. WHEREAS, CITY and COUNTY mutually agree that a regional, collaborative solution to leverage and expand CITY'S municipal water system into the East Porterville/Doyle Colony and Vandalia areas is the most feasible means to address the area's water needs; and
- G. WHEREAS, CITY is willing to enter into this Agreement with COUNTY upon terms and conditions set forth herein; and
- H. WHEREAS, CITY and COUNTY mutually understand that due to the limited resources of the CITY's municipal water system, all future connections must comply with the CITY's Annexation and Extension of Municipal Services policies, with certain exceptions for specific properties in excess of the maximum lot size, attached hereto and made a part thereof as Exhibit 'B'.

ACCORDINGLY, IT IS AGREED:

- 1. **TERM:** This agreement shall become effective as of the date the agreement is fully executed by both agencies.
- 2. **SERVICES TO BE PERFORMED & PAYMENT FOR SERVICES – EQUIPPING MUNICIPAL WELL FACILITY:** Refer to attached Exhibit 'D'.

TULARE COUNTY AGREEMENT NO. 27596

3. **SERVICE TO BE PERFORMED IN PERPETUITY:** The services described below shall be performed in perpetuity upon completion of all tasks enumerated in Exhibit 'D' and upon COUNTY securing the funds for equipping the well to CITY standards and requirements:
- A. CITY shall provide to STATE and/or COUNTY, upon STATE and COUNTY's request, a maximum of three million (3,000,000) gallons of water per month upon integration of the well provided under this Agreement, for the purposes of meeting emergency water needs in COUNTY's jurisdiction. CITY shall not charge COUNTY or STATE for said water.
 - B. CITY shall utilize water produced by the well provided under this Agreement as source capacity for new service connections and agreements in East Porterville/Doyle Colony and Vandalia areas. CITY agrees to provide source water for up to four hundred twenty-three (423) new connections in the East Porterville/Doyle Colony area subject to the CITY'S Annexation and Extension of Municipal Services policies, with certain exceptions for specific properties in excess of the maximum lot size, and up to 80 new connections in the Vandalia area. The 423 new connections noted above are inclusive of those properties immediately adjacent to an existing water main, estimated at 40 parcels, which can be connected to the City's water system immediately upon execution of this agreement and the Memorandum(a) of Understanding between CITY, COUNTY, and STATE. Upon connection to CITY services, the listed properties will be exempt from payment of CITY water impact fees, but will be subject to standard fees, such as, but not limited to, water service and meter installation, unless otherwise financed by STATE or other funding sources, and associated monthly fees. This section shall not be construed to limit additional connections beyond the above referenced 503 properties provided for herein, where CITY provides consumption documentation that determines additional source capacity is available as a result of the connection of this well to CITY's system.
 - C. CITY expressly agrees to own, operate, maintain, repair and otherwise care for the well provided under this Agreement, in order to maintain it in proper working order and to the highest standard, for the duration of the well's useful life.
 - D. COUNTY shall grant the parcel on which the well is located to the CITY by Grant Deed at a cost of \$1 upon formal acceptance of the project. A 50-foot control zone around the well site is a requirement of the State Water Resources Control Board, Drinking Water Program, therefore establishing the minimum parcel size to be conveyed to the CITY. Existing COUNTY infrastructure may encroach through or conflict with the subject parcel and if so, ownership, maintenance, repair and replacement of these facilities shall transition to the City's responsibility by separate maintenance agreement upon acceptance of the project.
 - E. CITY shall not be entitled to compensation by COUNTY, or any State or Federal agency providing funding for the activities enumerated in Exhibit 'D', for any ongoing costs related to owning, operating, maintaining, repairing, or replacing this well. CITY and COUNTY expressly agree that CITY's ongoing compensation for such ongoing costs shall be the use of the well for CITY's use within its water system, unrestricted except as noted in "A"

above. No part of this paragraph shall be construed to limit or restrict in any way CITY's ability to seek any grant funding or collect rates and fees from users of CITY's water system.

- F. All recipients of water are subject to CITY water policies, such as, but not limited to, water conservation and watering schedules. Connections made as noted in "B" above may be subject to further water conservation thresholds as required by the STATE.

4. This Agreement represents the entire agreement between CITY and COUNTY as to its subject matter and no prior oral or written understanding shall be of any force or effect. No part of this Agreement may be modified without the written consent of both parties.

5. Except as may be otherwise required by law, any notice to be given shall be written and shall be either personally delivered, sent by facsimile transmission or sent by first class mail, postage prepaid and addressed as follows:

COUNTY: County Administrative Officer/Clerk of the Board
of Supervisors of the County of Tulare
Administrative Building
2800 W. Burrell Avenue
Visalia, CA 93291

(Fax No.: (559) 733-6318 / Phone No. (559) 636-5005)

CITY: City Manager
291 N. Main St.
Porterville, CA 93257

(Fax No.: (559) 715-4013/ Phone No. (559) 782-7466)

Notice delivered personally or sent by facsimile transmission is deemed to be received upon receipt. Notice sent by first class mail shall be deemed received on the fourth day after the date of mailing. Either party may change the above address by giving written notice pursuant to this paragraph.

6. This Agreement reflects the contributions of both parties and accordingly the provisions of Civil Code section 1654 shall not apply to address and interpret any uncertainty.
7. Unless specifically set forth, the parties to this Agreement do not intend to provide any other party with any benefit or enforceable legal or equitable right or remedy.
8. This Agreement shall be interpreted and governed under the laws of the State of California without reference to California conflicts of law principles. This Agreement is entered into and shall be performed in Tulare County, California. CITY waives the removal provisions of California Code of Civil Procedure Section 394.
9. The failure of either party to insist on strict compliance with any provision of this Agreement shall not be considered a waiver of any right to do so, whether for that breach or any subsequent breach. The acceptance by either party or either performance or payment shall not be considered to be a waiver of any preceding breach of the Agreement by the other party.
10. The Recitals and the Exhibits to this Agreement are fully incorporated into and are integral parts of this Agreement.

11. This Agreement is subject to all applicable laws and regulations. If any provision of this Agreement is found by any court of other legal authority, or is agreed by the parties, to be in conflict with any code or regulation governing its subject, the conflicting provision shall be considered null and void. If the effect of nullifying any conflicting provision is such that a material benefit of the Agreement to either party is lost, the Agreement may be terminated at the option of the affected party. In all other cases the remainder of the Agreement shall continue in full force and effect.
12. Each party agrees to execute any additional documents and to perform any further acts which may be reasonably required to affect the purposes of this Agreement.
13. CITY expressly agrees that it will not discriminate in employment or in the provision of services on the basis of any characteristic or condition upon which discrimination is prohibited by state or federal law or regulation.
14. Insurance
15. Permit
16. Dispute Resolution: If a dispute arises out of or relating to this Agreement, or the breach thereof, and if said dispute cannot be settled through negotiation, the parties agree first to try in good faith to settle the dispute by non-binding mediation before resorting to litigation or some other dispute resolution procedure, unless the parties mutually agree otherwise. The mediator shall be mutually selected by the parties, but in case of disagreement, the mediator shall be selected by lot from among two nominations provided by each party. All costs and fees required by the mediator shall be split equally by the parties, otherwise each party shall bear its own costs of mediation. If mediation fails to resolve the dispute within 30 days, either party may pursue litigation to resolve the dispute.
17. Indemnification: CITY shall hold harmless, defend and indemnify COUNTY, its agents, officers and employees from and against any liability, claims, actions, costs, damages or losses of any kind, including death or injury to any person and/or damage to property, including COUNTY property, arising from, or in connection with, the performance by CITY or its agents, officers and employees under this Agreement. This indemnification specifically includes any claims that may be made against COUNTY by any taxing authority asserting that an employer-employee relationship exists by reason of this Agreement, and any claims made against COUNTY alleging civil rights violations by CITY under Government Code sections 12920 et seq. (California Fair Employment and Housing Act), and any fines or penalties imposed on COUNTY for CITY's failure to provide form DE-542, when applicable. This indemnification obligation shall continue beyond the term of this Agreement as to any acts or omissions occurring under this Agreement or any extension of this Agreement.

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THE PARTIES, having read and considered the above provisions, indicate their agreement by their authorized signatures below.

COUNTY OF TULARE

BY Mike Ennis
Mike Ennis Chairman,
Board of Supervisors



ATTEST: Michael C. Spata,
County Administrative Officer/Clerk of the Board
of Supervisors of the County of Tulare

By Danisa A. Ybana
Deputy Clerk

Approved as to Form
County Counsel

By M. G. [Signature] for LMT
Deputy 20151902

CITY OF PORTERVILLE

BY Milt Stowe
Milt Stowe, Mayor

ATTEST:
City Clerk of the City of Porterville

BY J. L. [Signature]
John Lollis, City Manager

Approved as to Form

BY [Signature]
City Attorney

EXHIBIT 'A'

East Porterville Project Boundary

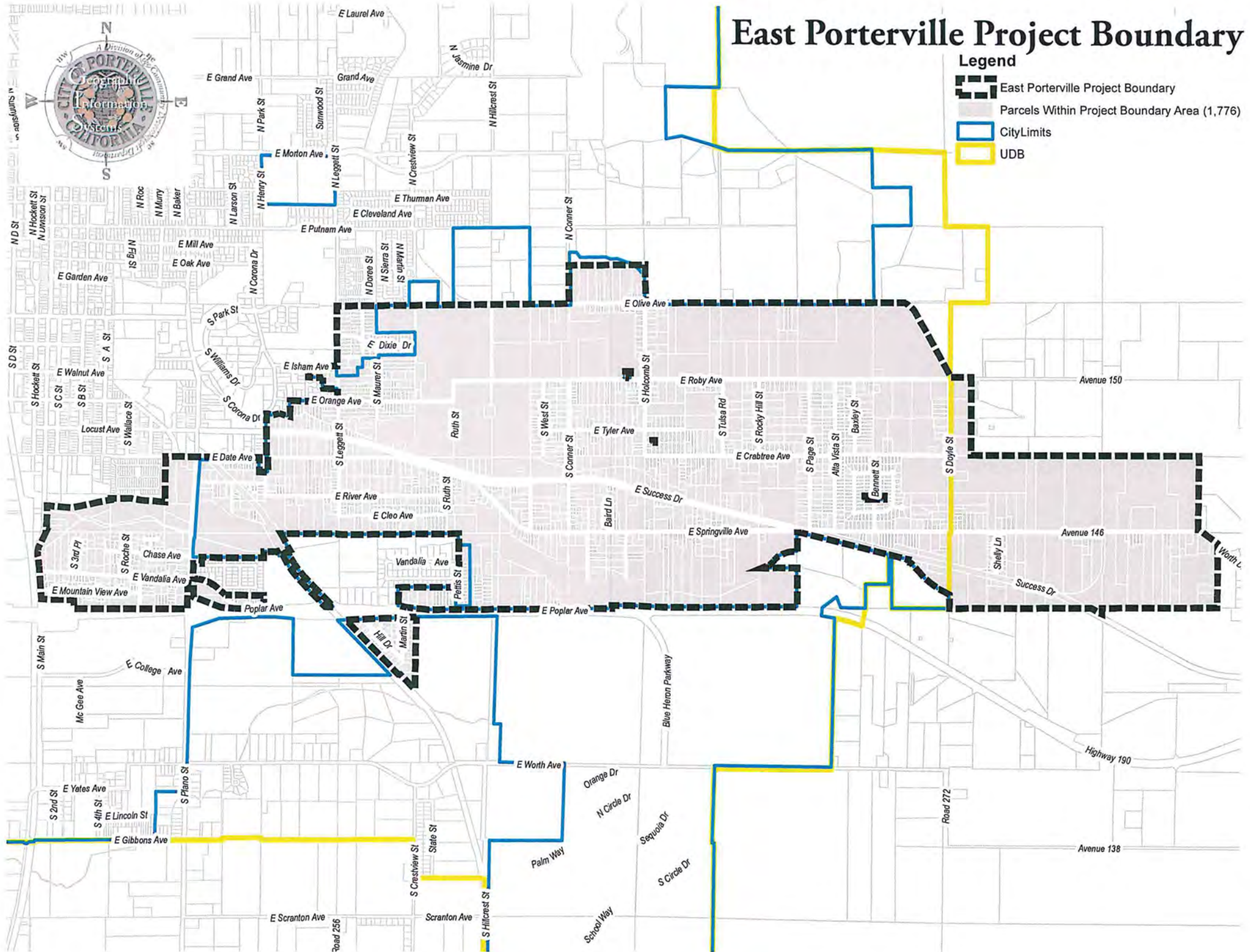


EXHIBIT 'B'

RESOLUTION NO. 74 -2014

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE DEFINING OBJECTIVES AND POLICIES FOR ANNEXATIONS AND MUNICIPAL SERVICES

WHEREAS: The City of Porterville established a policy concerning annexation and provision of municipal services in 1986, noting that “the City, in order to grow for reasons of economies of scale and quality of services must expand its boundaries within reason, generally encourages the owners of properties contiguous to the city of Porterville to annex to said City of Porterville”; and

WHEREAS: Since 1990, the population of the city of Porterville has increased 53% according to the California Department of Finance, and the land area of the city proper has increased by 38% according to City annexation records; and

WHEREAS: The City of Porterville accepts its responsibility to provide municipal services to those residents, businesses, and other land uses within the limits of the city. The City of Porterville has taken the position that the costs of all physical improvements within the city have been paid by property owners, and other taxes derived in the city, and, therefore, these same people should not be required to bear the expense of additional physical improvements needed to serve newly annexed areas.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Porterville does hereby define the following objectives related to annexations and municipal services:

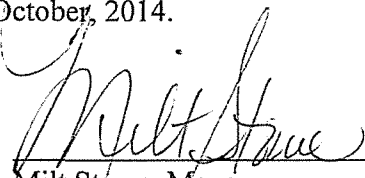
1. To promote orderly development while discouraging urban sprawl, preserving open space and prime agricultural lands, and efficiently extending government services.
2. To honor the City’s fundamental responsibility to provide efficient and sustainable public services to the inhabitants of the city, and where appropriate, to provide those services beyond the limits of the city within the Urban Development Boundary, and only in extreme cases to those properties beyond the Urban Development Boundary within the Urban Area Boundary.
3. To provide for land development and growth in a manner consistent with the General Plan, particularly as it relates to land use and circulation.
4. To consider an application upon its own merits, and identify what benefits would accrue to the City as an agency and service provider, to the residents of the city of Porterville, and to the applicant.
5. To identify the problems involved in any proposal considered for annexation or request for extra-territorial services and resolve them in the manner most beneficial to the properties within the city of Porterville.
6. To develop factual information to permit informed discussion between City representatives and property owners/residents of unincorporated territories.

BE IT FURTHER RESOLVED, that the City Council of the City of Porterville does hereby establish the following policies for consideration of annexations and municipal services:

1. It shall be the policy of the City of Porterville to consider annexation proposals only within the Urban Development Boundary, which is defined as the City of Porterville Annexation Boundary, as adopted by Tulare County Local Area Formation Commission (LAFCo).

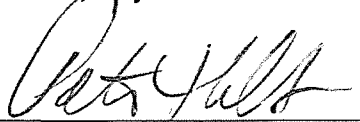
2. It shall be the policy of the City of Porterville to consider extra-territorial service requests primarily within the Urban Development Boundary, which is defined as the City of Porterville Annexation Boundary, as adopted by Tulare County LAFCo.
3. It shall be the policy of the City of Porterville, only where necessary in order to respond to an existing or impending threat to public health or safety of affected residents, to consider extra-territorial service requests within the Urban Area Boundary, as adopted by City Council and identified on the City of Porterville Zoning Map.
4. It shall be the policy of the City of Porterville to consider annexation proposals and extra-territorial service requests in a manner consistent with the policies and regulations adopted by the Tulare County LAFCo and the State of California, as applicable.
5. It shall be the policy of the City of Porterville to discourage single-family one (1) lot annexation proposals that may have an adverse fiscal impact on the City of Porterville.
6. It shall be the policy of the City Council that territory shall not be annexed to the city of Porterville, which as a result of such annexation, unincorporated territory is completely surrounded, or substantially surrounded by the city of Porterville.
7. It shall be the policy of the City of Porterville that annexation proposals shall be in conformance with the Cortese-Knox-Hertzberg Act of 2000, as amended.
8. It shall be the policy of the City Council to consider each petition/consent for annexation upon its relationship to what economic benefits will accrue to the City of Porterville, and to the area residents/property owners.
9. It shall be the policy of the City Council that the costs of all physical improvements will be borne by the property owners/resident or developer.
10. It shall be the policy of the City of Porterville to maintain the viability of agricultural productivity; i.e. protecting and conserving as much agricultural land as possible in the area surrounding the Porterville community.
11. It shall be the policy of the City of Porterville that the applicant for annexation present proposals to the Project Review Committee and explain the particulars of the area under consideration for possible annexation, including a plan for services.
12. It shall be the policy of the City of Porterville to consider any requests for annexation or extra-territorial services in a manner consistent with the procedures adopted by resolution of the City Council.

PASSED, APPROVED AND ADOPTED this 21st day of October, 2014.


Milt Stowe, Mayor

ATTEST:

John D. Lollis, City Clerk

By: 
Patrice Hildreth, Chief Deputy City Clerk


STATE OF CALIFORNIA)
CITY OF PORTERVILLE) SS
COUNTY OF TULARE)

I, JOHN D. LOLLIS, the duly appointed City Clerk of the City of Porterville do hereby certify and declare that the foregoing is a full, true and correct copy of the resolution passed and adopted by the Council of the City of Porterville at regular meeting of the Porterville City Council duly called and held on the 21st day of October, 2014.

THAT said resolution was duly passed, approved, and adopted by the following vote:

Council:	REYES	WARD	STOWE	HAMILTON	GURROLA
AYES:	X		X	X	X
NOES:		X			
ABSTAIN:					
ABSENT:					

JOHN D. LOLLIS, City Clerk


By: Luisa M. Zavala, Deputy City Clerk

RESOLUTION 19-2016


A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORTERVILLE
ESTABLISHING PROCEDURES FOR ANNEXATIONS AND EXTENSION OF
MUNICIPAL SERVICES

WHEREAS: On October 21, 2014, the City Council of the City of Porterville adopted two resolutions that defined objectives and policies, and established procedures for annexations and municipal services, respectively; and

WHEREAS: The on-going, severe drought of the past few years has created a situation where hundreds of parcels in the East Porterville area are experiencing dry wells, or wells of substandard water quality. State and regional agencies have come together with the City to identify and develop a long-term solution to this crisis, which will involve a significant infrastructure project to allow extension of municipal water services to the area. Not all parcels within the subject area meet the mandatory findings for extra-territorial service agreements as identified in the City's current procedures.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Porterville does hereby amend existing procedures to submit application for municipal services, and to have said application(s) processed as outlined in Exhibit "A", attached. The exemption identified for the East Porterville Feasibility Study Project Area will apply to the area represented in Exhibit "B".

PASSED, APPROVED AND ADOPTED this 19th day of April, 2016.



Milt Stowe, Mayor

ATTEST:

John D. Lollis, City Clerk

BY 

Luisa Zavala, Deputy City Clerk

All properties requesting annexation or extraterritorial services are subject to the procedures established below unless otherwise stated. Compliance with City of Porterville procedures does not guarantee approval by LAFCo of annexations or extra-territorial service agreements. Upon request for an annexation or extraterritorial services request, staff will evaluate whether the applicant's property is within the City's Urban Development Boundary or Urban Area Boundary and explain the process.

ANNEXATION APPLICATION PROCEDURE

1. A complete annexation application packet includes: fees, an Irrevocable Agreement to Annex, information as needed to define a deed restriction specific to land use and zoning, Application for Annexation, and other materials as required with those applications respectively.
2. On receipt of an application as outlined above, all materials will be considered by the Project Review Committee, who will coordinate in a pre-consultation process with LAFCO staff and the County Public Works Department for review and recommendation.
3. During review by the Project Review Committee of the necessary application and data, staff will prepare a report and findings on all aspects of the proposed action(s).
4. An environmental document will be prepared pursuant to the California Environmental Quality Act (CEQA), reviewing the potential environmental effect of the proposed activities. The Zoning Administrator will make an initial determination of the level of environmental review required.
5. After proper noticing, a public hearing will be held for the City Council to hear comments related to the project at a regularly scheduled meeting. The Council will authorize staff to initiate the application with LAFCo. Documents will be filed in accordance with the Cortese-Knox-Hertzberg Act of 2000, as amended, and submitted to the Local Agency Formation Commission for its review, recommendation and action.
6. On consummation by the City Council, the City Clerk shall submit the necessary materials to the State Board of Equalization with the appropriate acreage fees, which are paid by the Applicant.
7. In the event the annexation fails, either by dissenting votes of the City Council or at hearing at LAFCo, the City Council may approve an extraterritorial service agreement within the Urban Development Boundary, subject to conditions identified in the deed restriction.

ANNEXATION EXEMPTION PROCEDURE

Where a certain property meets all of the following criteria, they may proceed with an Extraterritorial Service Agreement for water or storm-water drainage without first attempting annexation, subject to the conditions of Extraterritorial Service Agreements as defined below.

1. Previously developed single family residences on parcels 24,999 square feet or smaller, OR a school developed by a State funded school district.
2. The parcel requesting services must be immediately adjacent to a municipal main providing the requested service, or the property owner shall provide for the extension of the main line to City standards at their expense.

EXTRATERRITORIAL SERVICES APPLICATION PROCEDURE

Extraterritorial Service connections may be made subject to the following conditions. Note specific parameters and the required findings for connections in the Urban Development Boundary and the Urban Area Boundary.

1. Application: A complete extraterritorial services application packet includes: fees, an Irrevocable Agreement to Annex, information as needed to define a deed restriction specific to land use and zoning, and other materials as required with those applications respectively.
2. General Plan Consistency:
 - a. Proposed Uses and Improvements: Service connections are to be withheld from proposed uses and improvements that would not be consistent with the adopted Land Use Element of the Porterville Area General Plan and the City of Porterville General Plan.
 - b. Existing Uses and Improvements: Service connections to existing uses and improvements which are not consistent with the adopted Land Use Element of the Porterville Area General Plan and the City of Porterville General Plan shall be considered at the discretion of the City Council, and may be subject to other restrictions.
3. Agreements and covenants:
 - a. A deed restriction specific to land use and zoning must be approved by the property owner and the City Council, and recorded with the County of Tulare upon the property, at the applicant's cost.
 - b. An irrevocable agreement to annex must be signed by the property owner and recorded with the County of Tulare upon the property, at the applicant's cost.
4. Time limitations: The City Manager or his designee, or the City Council may condition the approval of applications for service connections by establishing a time frame within which connections must be made to avoid re-application.
5. Improvement Plans: Applications for service connections, which necessitate the extension of one or more municipal facilities to property in order to make such connections, shall be conditioned by the City Manager or his designee, or the City Council to require that Construction Drawings of the intended public improvements be submitted to the City Engineer for plan check and approval. Costs incurred for the preparation of improvement plans, and certain off-site construction and/or installation costs related to extending facilities, shall be the responsibility of the applicant.
6. Fees: Prior to the issuance of a Connection Permit, payment must be made to the City of Porterville of all fees pertinent to the respective service connection, or connections, approved by the City Manager or his designee, or the City Council.

Within the Urban Development Boundary:

For connection of water or storm-water facilities, the requesting party must fully fund the extension of infrastructure if it does not already exist in order to connect. The City of Porterville Wastewater Facility is a regional facility and as such, an extraterritorial service request cannot be denied; however, the requesting party must fund a fair share of the extension of infrastructure if it does not already exist in order to connect. Contract services for police, fire, or building inspection services shall be approved by resolution of the City Council.

For connection of water or storm-water facilities, the following findings must be made in order for the Council approve an extraterritorial service connection:

- That the subject property is a previously developed single family residence on a parcel 24,999 square feet or smaller, OR a school developed by a State funded school district.
- That failure to connect to municipal services would result in a threat to public health or safety of affected residents.
- That connection of the subject property would not result in a negative impact to the City of Porterville water and/or storm-water system.
- That the subject property is not within an island as defined by Tulare LAFCo.
- That an attempt to annex the subject site is not realistic given current city limit boundaries. Specifically, the parcel is too far removed from the city limit, and/or the number and valuation of adjacent parcels would result in a failed annexation effort.

Within the Urban Area Boundary:

For connection of water or storm-water facilities, the requesting party must fully fund the extension of infrastructure if it does not already exist in order to connect. The City of Porterville Wastewater Facility is a regional facility and as such, an extraterritorial service request cannot be denied; however, the requesting party must fund a fair share of the extension of infrastructure if it does not already exist in order to connect. Contract services for police, fire, or building inspection services shall be approved by resolution of the City Council.

For connection of water or storm-water facilities, the following findings must be made in order for the Council approve an extraterritorial service connection:

- That the subject property is a previously developed single family residence on a parcel 24,999 square feet or smaller, OR a school developed by a State funded school district.
- That failure to connect to municipal services would result in a threat to public health or safety of affected residents.
- That connection of the subject property would not result in a negative impact to the City of Porterville water and/or storm-water system.

EXEMPTIONS AND EXCEPTIONS

1. PVPUD: Connections to Porterville Regional Sewage Treatment Facilities serving uses and improvements to property within the boundaries and jurisdiction of the Porter Vista Public Utility District (PVPUD) are exempted from application to the City of Porterville. Interested parties should contact the PVPUD for information on connection requirements and fees pertaining

to sewer services. This exemption does not apply to requests for connection to Municipal Water and/or Master Storm Drain Facilities.

2. PRIOR APPROVALS: Porterville City Council approval of requests for connection to Regional Sewage Treatment, Municipal Water and/or Master Storm Drain Facilities as authorized prior to the adoption and effective date of the respective policies set forth herein shall remain valid and in force according to the terms and conditions initially specified at the time of approval, and re-application will not be required.

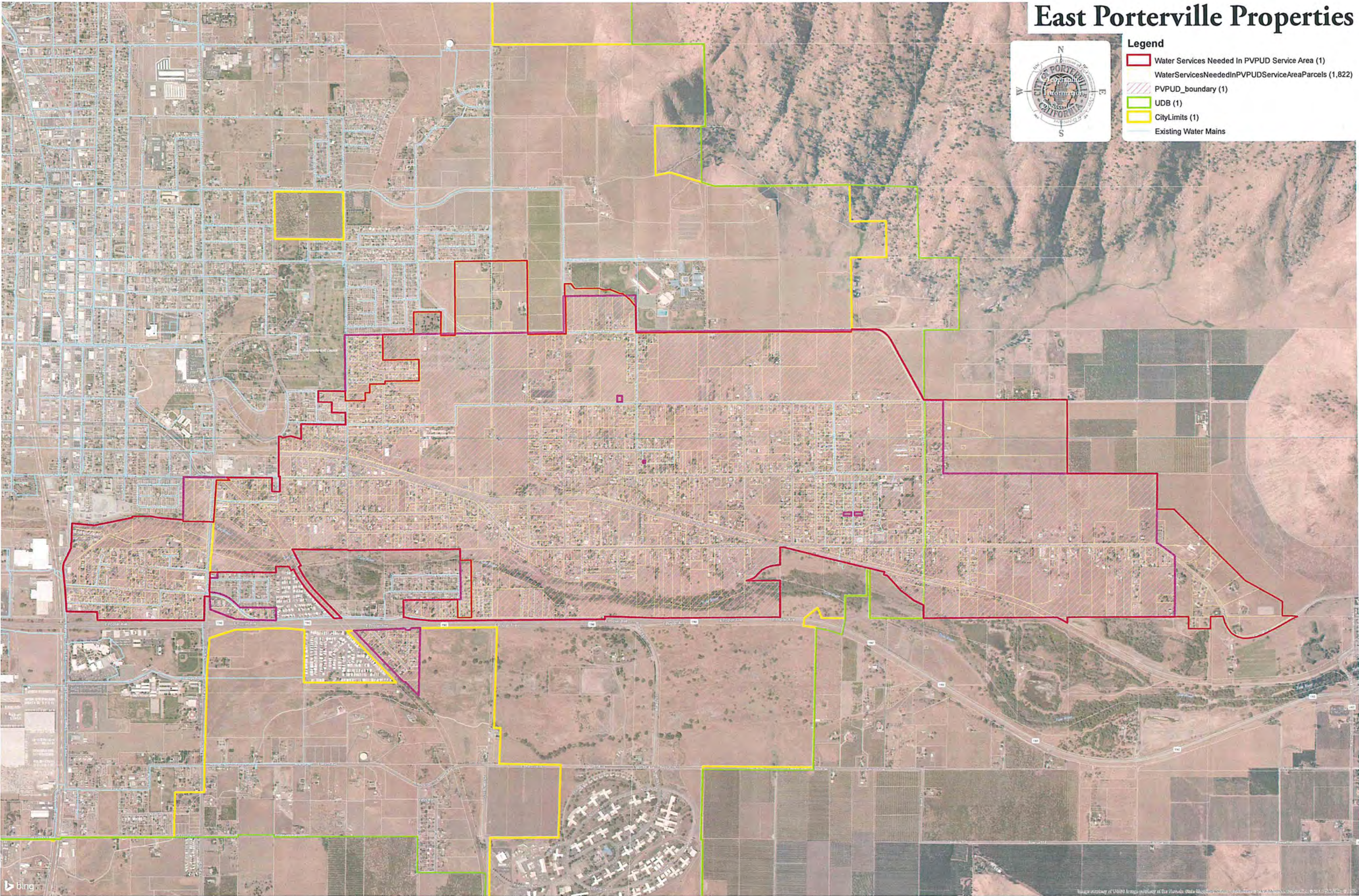
3. PROPERTIES WITHIN THE EAST PORTERVILLE FEASIBILITY STUDY PROJECT AREA: The California State Water Resources Control Board, in coordination with the Department of Water Resources Drought Task Force, is charged with preparing a feasibility study to define a long-term solution to the water related issues in East Porterville. Properties within that boundary would be permitted to apply for connection, whether in association with DWR, SWRCB, or at a later date, on their own. Such connections would be subject to the mandatory findings as outlined in this procedure, with the following exceptions:

- Rather than require that the subject property be a developed single-family residence on a parcel 24,999 square feet or smaller, neither the land use nor the parcel size would be restricted neither the land use nor the parcel size would be restricted for legal and legal non-conforming structures and land uses existing as of April 29, 2016.
- Further, properties within certain islands in the EPFS Project Area would not be required to annex prior to connection. This exception does not limit the City of Porterville's authority to pursue annexation in the future, but rather waives the requirement that annexation must be approved prior to connection.

East Porterville Properties



- Legend**
- Water Services Needed In PVPUD Service Area (1)
 - WaterServicesNeededInPVPUDServiceAreaParcels (1,822)
 - PVPUD_boundary (1)
 - UDB (1)
 - CityLimits (1)
 - Existing Water Mains



STATE OF CALIFORNIA)
CITY OF PORTERVILLE) SS
COUNTY OF TULARE)

I, JOHN D. LOLLIS, the duly appointed City Clerk of the City of Porterville do hereby certify and declare that the foregoing is a full, true and correct copy of the resolution passed and adopted by the Council of the City of Porterville at regular meeting of the Porterville City Council duly called and held on the 19th day of April, 2016.

THAT said resolution was duly passed, approved, and adopted by the following vote:

Council:	REYES	WARD	STOWE	HAMILTON	GURROLA
AYES:	X	X	X	X	
NOES:					
ABSTAIN:					
ABSENT:					X

JOHN D. LOLLIS, City Clerk


By: Luisa Zavala, Deputy City Clerk

EXHIBIT 'C'



EXHIBIT 'D'

Scope of Work

Task	Description	Cost
1.2	Prepare Well Drilling Plans, Specifications, and Estimates	\$468.00
3.2	Prepare Well Equipping Plans, Specifications, and Estimates	\$1,526.00
5	Ph. 1 Preconstruction Meeting	\$1,357.43
Total:		\$3,351.43

Consulting Engineering work will be reimbursed directly to Dee Jaspar & Associates under Tulare County Agreement No. 1276, including the following Tasks:

Task 4.1	Project Evaluations and Field Surveying	\$58,326.00
Task 4.2	Prepare Well Equipping Plans, Specifications, and Estimates	\$30,000.00
Task 4.3	Prepare and Assist with SCE Application & Telephone Service	\$5,000.00
Task 4.4	SCE Costs	\$15,000.00
Total:		\$108,326.00

Discussion Draft

Subject to Additional Review and Modification by the Parties

Porterville MOU
Draft 2
June 15, 2016
PortervilleEmergencyMOU061516



Memorandum of Understanding (MOU)

Regarding the Provisions of Emergency Water Supplies to East Porterville

by the California Department of Water Resources (DWR), California Office of Emergency

Service (OES), the State Water Resources Control Board (SWRCB),

the County of Tulare (County), and City of Porterville (Porterville),

which are collectively known as the “Parties”

Recitals

Whereas, some residents living in an unincorporated area of Tulare County, commonly known as “East Porterville,” have experienced loss of adequate water supply to their homes and properties as a result of severe drought conditions, which has caused significant hardship for the residents;

Whereas, Governor Edmund G. Brown Junior has directed all State agencies to assist these residents who are in need of water supplies with emergency and long-term assistance;

Whereas, Governor Edmund G. Brown Junior signed Assembly Bill 685 in 2012, adding Water Code section 106.3, which recognizes that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes, and which requires all relevant state agencies to consider this right when revising, adopting, or establishing pertinent policies, regulations, and grant criteria;

Whereas, the Parties have provided emergency water supplies to some residents of East Porterville that are without an adequate household water supply;

Whereas, the Parties to this MOU seek an emergency and long-term solution to the lack of adequate household water supply by developing and providing continuous water supplies to these residents;

Whereas, East Porterville is located east and adjacent to Porterville, which has an existing municipal water system that serves residents within the incorporated area of Porterville;

Whereas, some of the residents of East Porterville without an adequate household water supply could be connected to Porterville's municipal water system provided certain arrangements and projects are carried out by the Parties;

Whereas, Vandalia is a neighborhood located within Porterville, and some Vandalia residents lack adequate household water supply and these households could be connected to Porterville's municipal water system;

Whereas, the Parties have met and have discussed alternative plans and projects that would provide an emergency water supply from Porterville to some residents of East Porterville and Vandalia in an expeditious manner;

Whereas, to advance these projects, DWR has provided funding, as reflected in the agreement between DWR and Tulare attached as Exhibit 1, for a municipal well designated as "Well C1" located in Tulare County that ultimately could be used to supply water to these residents of East Porterville;

Whereas, the SWRCB has also provided funding for Well C1, as reflected in the agreement between the SWRCB and the County attached as Exhibit 2;

Whereas, the County and Porterville intend to execute an agreement, a draft of which is attached as Exhibit 3, that will connect Well C1 to Porterville's municipal water system and that will provide for an adequate household water supply for some residents of East Porterville; and

Whereas, the Parties have reached an understanding on how best to implement the project alternative that will provide an adequate household water supply to some residents of East Porterville and Vandalia, and alleviate the hardships in an expeditious, cost-effective manner.

Understanding

A. Description of Emergency Project and Long-Term Plan

1. The purpose of this MOU is to set forth in writing the intentions of the Parties of how best to move forward with plans to complete an emergency water supply project (Project) to some residents in the East Porterville and Vandalia areas, which are represented in Exhibit 4. (Map showing East Porterville and Porterville). The goal of the Project is to provide an adequate household water supply to some of the residents and properties in these areas that do not have one presently, and to end the need of the Parties to provide temporary water supplies to those residents through tanks and bottles.

2. The Parties intend to develop the Project in two phases. Phase 1 will make municipal water connections to the properties in East Porterville that have dry wells and are adjacent to Porterville's existing municipal water distribution system. It is estimated that this phase will serve 40 properties with dry wells that are currently receiving temporary household water supplies.

3. The Parties intend that Phase 2 of the Project will provide municipal water supply to approximately 500 properties in East Porterville and in Vandalia that have dry wells or otherwise lack an adequate source of water and have not been connected by Phase 1. In order to complete Phase 2, the residents of these properties will likewise need to connect to Porterville's municipal water system.

4. As soon as possible, Porterville and DWR will undertake Phase 1 of the Project and connect the properties in East Porterville that are adjacent to Porterville's existing municipal water distribution system. These connections will be accomplished as described in Water Installation Diagram attached as Exhibit 5 and based on the cost estimate, which is attached as Exhibit 6. In order to make these connections, a property owner desiring to receive public water supply will need to execute the Extraterritorial Service Agreement, a sample of which is attached as Exhibit 7, and the SWRCB's Water Connection Agreement, a sample of which is attached as Exhibit 8. Necessary signatures and agreements with property owners will be sought through SWRCB's outreach carried out with the assistance of all Parties to this MOU.

5. The Parties intend that Well C1 will be used to provide the emergency water supply in Phase 2 to about 500 properties without adequate household water supplies. The Parties presently understand that there are about 423 properties in East Porterville and approximately 80 properties in Vandalia where connections may be needed to provide emergency water supplies.

6. The Parties have created a Technical Workgroup consisting of engineers and planners, which work cooperatively on the technical issues described in this MOU. Based on recommendations of the Technical Workgroup, the Parties intend to provide the emergency water supply contemplated by this MOU.

7. The Parties intend to develop a Long-Term Water System Plan (Long-Term Plan) for the East Porterville area, which will serve other residents in the area besides those served by the Project. The Parties intend that the Project will be designed consistent with the Long-Term Plan to ensure that all water facilities constructed as part of the Project will be incorporated into the facilities ultimately developed through the Long-Term Plan. The first work product produced by the Technical Workgroup will be a Feasibility Study for the Long-Term Plan. The outline of the Feasibility Study is attached as Exhibit 9.

8. The Parties intend to use best efforts to complete both phases of the Project by December 31, 2016. The completion date of the Long-Term Plan is dependent on the completion of the Feasibility Study carried out by Technical Workgroup and on Porterville and/or the County applying for and securing sufficient funding from the SWRCB or from other sources. The Parties desire to complete the Long-Term Plan as expeditiously as possible.

B. Project Contributions of the Parties

9. Working in cooperation with the other Parties and the Technical Workgroup, DWR will prepare all environmental compliance for the Project, and design and construct the Project, both Phases 1 and 2. DWR will provide funding for Phases 1 and 2 of the Project through Emergency Drought Funding. DWR intends to serve as California Environmental Quality Act (CEQA) lead agency for the Long-Term Plan and will prepare any necessary CEQA documentation and any other necessary environmental review documents, unless the Feasibility Study recommends another lead agency.

10. SWRCB will provide the community outreach to assist in obtaining necessary property owner acceptance before proceeding with Project. SWRCB will also work with Porterville and/or County to secure funding of the Long-Term Plan. SWRCB will provide certain reviews and approvals for the permitting of the Project and the Long-Term Plan.

11. OES will coordinate all of the State's efforts under the Governor's Drought Task Force in the Project area and will be provided at no cost by Porterville up to 3,000,000 gallons of emergency water per month as needed as a result of this MOU and the agreement that Porterville and the County are in the process of considering for execution, a draft of which is attached as Exhibit 3, with regard to the Well C1.

12. Porterville will provide the needed water service to the residents of East Porterville without an adequate household water supply after they are connected to Porterville's municipal water system as described in the Project. The water service will be accomplished per the Extraterritorial Service Agreement, which requires that property owners served pay the monthly water bill. DWR is funding the residents' connection to the Project, and as a result, some of the normal connection fees will be waived provided that connection is made during Phase 1 or Phase 2. Porterville will install the water meters for each connection, which will be paid for by DWR.

13. The County intends to execute an agreement with Porterville that is consistent with this MOU and Exhibit 3, which will allow Well C1 to serve as a water supply for the Project. The County will inspect the work of the Project and the property connections at no cost to the residents.

14. The Parties to the MOU will cause the removal of all temporary water tanks from the properties upon completion of the Project and the appurtenances necessary for the receipt of municipal water service. The work for removing the water tanks will be carried out by the County under an agreement between the County and OES.

C. General Provisions

15. The Parties intend to use their best efforts to carry out this MOU. This MOU is not a binding agreement, and is not intended to create contractual rights and remedies among the Parties. However, the Parties have entered into and intend to enter into certain binding agreements in the future necessary to develop and complete the Project and the Long-Term Plan.

16. This MOU will become effective upon the signature of the all Parties. The MOU will terminate on December 31, 2016, unless extended by all of the Parties in writing.

[Signatures on following page]

This MOU has been executed by:

California Department of Water Resources

State Water Resources Control Board

California Office of Emergency Services

County of Tulare

City of Porterville

List of Exhibits

1. DWR and Tulare County Executed Well C1 Agreement
2. SWRCB and County Executed Well C1 Agreement (Water Board Grant #D-15-11-902)
3. County and Porterville Draft Well Agreement
4. Map of East Porterville
5. Household Water Service Installation Diagram
6. Household Water Service Cost Estimate
7. Sample Extraterritorial Service Agreement
8. Sample SWRCB Water Connection Agreement
9. Draft Emergency Project Feasibility Study



Amendment No. 1

To the East Porterville Water Supply Project

Memorandum of Understanding (MOU)

Regarding the Provisions of Emergency Water Supplies to East Porterville
by the California Department of Water Resources (DWR), California Office of
Emergency Service (OES), the State Water Resources Control Board (SWRCB),
the County of Tulare (County), and City of Porterville (Porterville),
which are collectively known as the "Parties"

This Amendment No.1 to the MOU is made this 7th day of November, 2016. As described below, this Amendment No.1 recognizes the MOU is still in effect, modifies certain sections of this MOU, and adds new sections to the MOU.

Recitals

Whereas, some residents living in an unincorporated area of Tulare County, commonly known as "East Porterville," have experienced loss of adequate water supply to their homes and properties as a result of severe drought conditions, which has caused significant hardship for the residents;

Whereas, Governor Edmund G. Brown Junior has directed all State agencies to assist these residents who are in need of water supplies with emergency and long-term assistance;

Whereas, the Parties to this MOU seek an emergency and long-term solution to the lack of adequate household water supply by developing and providing continuous water supplies to these residents;

Whereas, to advance these projects, DWR and the SWRCB have provided funding, as reflected in Exhibits 1 and 2, for a municipal well designated as "Well C1" located in Tulare County that ultimately could be used to supply water to these residents of East Porterville;

Whereas, the Parties have reached an understanding on how best to implement the project alternative that will provide an adequate household water supply to some residents of East Porterville and Vandalia, and alleviate the hardships in an expeditious, cost-effective manner:

Whereas, the purpose of this amendment is to clarify some sections of the MOU and to add several new sections.

NOW THEREFORE, IT IS MUTUALLY AGREED that the following changes are hereby made to the MOU:

1. Section A (2) is amended to read as follows:

The Parties intend to develop the Project in two phases. Phase 1 will make municipal water connections to the properties in East Porterville and Vandalia that have dry wells and/or water tanks. It is estimated that this phase will serve approximately 300 properties.

2. Section A (3) is amended to read as follows:

The Parties intend that Phase 2 of the Project will provide municipal water supply to approximately 800 properties in East Porterville by connecting them to the City of Porterville's water system. The total number of homes eligible for this Project is approximately 1,100.

3. Section A (5) is amended to read as follows:

The Parties intend that Well C1 will be used to provide the initial water supply. The Parties acknowledge the delay in Well C1 completion. To mitigate the effects of this on the residents of East Porterville, the City of Porterville will allow connections of homes as they become prepared for connection. These early connections will be beyond the initial 70 connections (previously 40 connections) agreed to, given the availability of capacity during the winter months. However, these additional connections to the City's water system will cease on March 1, 2017, if Well C1's connection to the City's water system is not completed by then.

4. Sections A (7) b-f shall be added and made part of this MOU:

7 (a). The Parties intend to develop a Long-Term Water System Plan (Long-Term Plan) for the East Porterville area, which will serve other residents in the area besides those served by the Project. The Parties intend that the Project will be designed consistent with the Long-Term Plan to ensure that all water facilities constructed as part of the Project will be incorporated into the facilities ultimately developed through the Long-Term Plan. The first work product produced by the Technical Workgroup will be a Feasibility Study for the Long-Term Plan. The outline of the Feasibility Study is attached as Exhibit 9.

(b). The East Porterville Water Supply Project Hydraulic Analysis Report ("Hydraulic Analysis Report," which is attached as Exhibit 10) determined that the water supply capacity required to serve all eligible residents of East Porterville is 1,435 gallons per minute (gpm). This capacity shall be based on the sustainable yield of the wells which is defined as 75 percent of the initial design capacity. Since Well C1 has a sustainable yield of 600 gpm, the Parties agree that the State will fund the construction and equipping of additional wells to provide the 835 gpm shortfall.

(c). Based on the Hydraulic Analysis, a 700,000 gallon water storage tank is required to serve the residents of East Porterville. However, based on Porterville's master plan recommendations, a 1.2 million-gallon storage tank is required for the City's buildout. The Parties therefore intend to construct a 1.2 million-gallon storage tank with cost sharing between the State and the City. The State will fund the cost of a 700,000 gallon tank required for the Project and the City of Porterville will fund the cost of the additional 500,000 gallons of storage required for the City's future use as contained in its master plan. The cost-sharing shall be proportional to the tank capacity being funded.

(d). The Parties intend to upgrade the existing Henderson-Plano Booster Pump Station and the Granite Hills Intertie which would facilitate water supply to the East Pressure Zone which serves East Porterville. The State will fund the construction of one booster pump rated at 2,100

gpm along with a variable frequency drive and the Granite Hills Intertie. The City will fund the replacement of its two existing pumps along with associated variable frequency drives as part of Phase 2 of the Project. These two pumps are more than 30-years old and their replacement will enable the City's water system to operate more efficiently and in a cost-saving manner.

(e). The Parties further agree that a booster pump station of capacity 1,670 gpm is required to convey water from the West Pressure Zone, where the new wells will be located, to the Central Pressure Zone for onward conveyance to East Porterville. The State will fund the construction of this booster pump station.

(f). Given that Well C1 has an estimated sustainable yield of 600 gpm, as well as a unit demand of 0.833 gpm per home connection based on the Hydraulic Analysis , Well C1 could effectively serve up to 720 households . The Parties agree that home connections for Phase 2 of the Project can begin as soon as Well C1 is connected to the City's water system, and the Henderson-Plano Booster Pump Station upgrade and the Granite Hills Intertie are completed. These home connections shall cease when the capacity of Well C1 is exceeded. Thereafter, additional home connections will be made after the construction of additional wells or if City staff determines that the water system can support additional home connections.

5. Section (C) 16 is amended to read as follows:

16. This MOU will become effective upon the signature of the all Parties. The MOU will terminate on June 30, 2018, unless extended by all Parties in writing.

6. The list of the Exhibits at the end of MOU is amended to read as follows:

1. DWR and Tulare County Executed Well C1 Agreement
2. SWRCB and County Executed Well C1 Agreement (Water Board Grant #D-15-11-902)
3. County and Porterville Draft Well Agreement
4. Map of East Porterville
5. Household Water Service Installation Diagram
6. Household Water Service Cost Estimate
7. Sample Extraterritorial Service Agreement
8. Sample SWRCB Water Connection Agreement
9. Draft Feasibility Study for the Long-Term Plan
10. East Porterville Water Supply Project Hydraulic Analysis Report

This MOU has been executed by:

California Department of Water Resources

State Water Resources Control Board

California Office of Emergency Services

County of Tulare

City of Porterville



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

NOV 29 2017

The Honorable Milt Stowe
Mayor of City of Porterville
291 North Main Street
Porterville, CA 93257

RECEIVED

DEC 04

CITY OF PORTERVILLE
CITY MANAGER

Dear Mayor Stowe:

The Department of Water Resources and the State Water Resources Control Board are requesting an increase to the number of household connections from 720 to 800 to the City of Porterville (City) water system, prior to the completion of the East Porterville Emergency Water Supply Project – Phase 2 (Project). The construction of all facilities is estimated to be completed by June 2019.

According to Section A(7)(f) of Amendment No. 1 to the Project's Memorandum of Understanding (MOU), the estimated sustainable yield of Well C1 is 600 gallons per minute (gpm) and therefore will serve up to 720 households. Our current projections show that approximately 800 households will need to be connected by the end of 2017.

Our current plans are to drill two additional wells which would add more than 835 gpm of sustainable yield to the City's water supply, pending land acquisition by the City. Further, our calculations indicate that Well C1 is currently capable of producing 800 gpm in the interim, which can support a total of 960 households in the short term. It is our hope that the City will complete acquisition of the properties needed to drill the two additional wells in a timely manner to ensure that the City's water supply does not become stressed.

We look forward to hearing favorably from you and thank you for your continued support in providing safe drinking water to the residents of East Porterville.

Sincerely,



James Maughan, Assistant Deputy Director
Division of Financial Assistance

cc: See next page

DEPARTMENT OF WATER RESOURCES

SOUTH CENTRAL REGION OFFICE
3374 EAST SHIELDS AVENUE, ROOM 3
FRESNO, CA 93726-6913



January 18, 2018

Mr. Michael K. Reed
Public Works Director
City of Porterville
291 North Main Street
Porterville, California 93257

RECEIVED

JAN 22 2018

City of Porterville
Public Works Dept

Approval of Funding from Local Assistance Funds to the City of Porterville for the
County Areas Water Supply Project

Dear Mr. Reed:

Your request for funds to accomplish the city of Porterville's scope of work to connect drought-impacted households in seven Tulare County areas bounded by the city has been approved. The approved funding is not to exceed the amount of \$2,812,946.00. The term of the funding is from January 18, 2018, to December 31, 2019.

The purpose of this funding is for the city of Porterville to effectuate the connection of the drought-impacted homes in seven county areas to the city's water distribution system. The project comprises water main extensions, home connections, and well destructions. These homes have been identified as having private residential wells, and the homeowners have voluntarily elected to join the project. As part of their election to participate in the project, the homeowners have consented to having their groundwater wells destroyed.

A grant agreement is being developed and will be sent to you for approval. You are allowed to start incurring costs from January 18, 2018. No reimbursement will be issued until the contract agreement is executed.

If you have any questions or need additional information regarding the agreement, please contact Steve Doe by email at Steve.Doe@water.ca.gov or by phone at (559) 230-3348.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin Faulkenberry".

Kevin Faulkenberry, Chief
South Central Region Office

Executive Department

State of California

EXECUTIVE ORDER B-40-17

WHEREAS California has endured a severe multi-year drought that has threatened the water supplies of communities and residents, devastated agricultural production in many areas, and harmed fish, animals and their environmental habitats; and

WHEREAS Californians responded to the drought by conserving water at unprecedented levels, reducing water use in communities by more than 22% between June 2015 and January 2017; and

WHEREAS the State Water Resources Control Board, the Department of Water Resources, the Department of Fish and Wildlife, the Office of Emergency Services, and many other state agencies worked cooperatively to manage and mitigate the effects of the drought on our communities, businesses, and the environment; and

WHEREAS the State provided 66,344,584 gallons of water to fill water tanks for communities suffering through drought-related water shortages, outages, or contamination, and provided emergency assistance to drill wells and connect communities to more robust water systems; and

WHEREAS the State took a number of important actions to preserve and protect fish and wildlife resources, including stream and species population monitoring, fish rescues and relocations, infrastructure improvements at trout and salmon hatcheries, and infrastructure to provide critical habitat for waterfowl and terrestrial animals; and

WHEREAS the State established a Statewide Water Efficiency and Enhancement Program for agricultural operations that provides financial assistance for the implementation of irrigation systems that save water; and

WHEREAS water content in California's mountain snowpack is 164 percent of the season average; and

WHEREAS Lake Oroville, the State Water Project's principal reservoir, is 101 percent of average, Lake Shasta, the federal Central Valley Project's largest reservoir, is at 110 percent of average, and the great majority of California's other major reservoirs are above normal storage levels; and

WHEREAS despite winter precipitation, the effects of the drought persist in areas of the Central Valley, including groundwater depletion and subsidence; and

WHEREAS our changing climate requires California to continue to adopt and adhere to permanent changes to use water more wisely and to prepare for more frequent and persistent periods of limited water supply; and



WHEREAS increasing long-term water conservation among Californians, improving water use efficiency within the State's communities and agricultural production, and strengthening local and regional drought planning are critical to California's resilience to drought and climate change.

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, do hereby **TERMINATE THE JANUARY 17, 2014 DROUGHT STATE OF EMERGENCY** for all counties in California except the Counties of Fresno, Kings, Tulare, and Tuolumne.

I FURTHER ORDER THAT:

1. The orders and provisions contained in my April 25, 2014 Emergency Proclamation, as well as Executive Orders B-26-14, B-28-14, B-29-15, and B-36-15 are rescinded.
2. The orders and provisions contained in Executive Order B-37-16, **Making Water Conservation a California Way of Life**, remain in full force and effect except as modified by this Executive Order.
3. As required by the State Emergency Plan and Government Code section 8607(f), the Office of Emergency Services, in coordination with other state agencies, shall produce an after-action report detailing the State's response to the drought and any lessons learned in carrying out that response.

MAINTAINING CONSERVATION AS A WAY OF LIFE

4. The State Water Resources Control Board (Water Board) shall continue development of permanent prohibitions on wasteful water use and requirements for reporting water use by urban water agencies, and to provide a bridge to those permanent requirements, shall maintain the existing emergency regulations until they expire as provided by the Water Code. Permanent restrictions shall prohibit wasteful practices such as:
 - Hosing off sidewalks, driveways and other hardscapes;
 - Washing automobiles with hoses not equipped with a shut-off nozzle;
 - Using non-recirculated water in a fountain or other decorative water feature;
 - Watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and
 - Irrigating ornamental turf on public street medians.
5. The Water Board shall rescind those portions of its existing emergency regulations that require a water supply stress test or mandatory conservation standard for urban water agencies.

6. The Department of Water Resources (Department) shall continue work with the Water Board to develop standards that urban water suppliers will use to set new urban water use efficiency targets as directed by Executive Order B-37-16. Upon enactment of legislation, the Water Board shall adopt urban water use efficiency standards that include indoor use, outdoor use, and leaks as well as performance measures for commercial, industrial, and institutional water use. The Department shall provide technical assistance and urban landscape area data to urban water suppliers for determining efficient outdoor use.
7. The Water Board and the Department shall continue to direct actions to minimize water system leaks that waste large amounts of water. The Water Board, after funding projects to address health and safety, shall use loans from the Drinking Water State Revolving Fund to prioritize local projects that reduce leaks and other water system losses.
8. The Water Board and the Department shall continue to take actions to direct urban and agricultural water suppliers to accelerate their data collection, improve water system management, and prioritize capital projects to reduce water waste. The California Public Utilities Commission is requested to work with investor-owned water utilities to accelerate work to minimize leaks.
9. The Water Board is further directed to work with state agencies and water suppliers to identify mechanisms that would encourage and facilitate the adoption of rate structures and other pricing mechanisms that promote water conservation.
10. All state agencies shall continue response activities that may be needed to manage the lingering drought impacts to people and wildlife. State agencies shall increase efforts at building drought resiliency for the future, including evaluating lessons learned from this current drought, completing efforts to modernize our infrastructure for drought and water supply reliability, and shall take actions to improve monitoring of native fish and wildlife populations using innovative science and technology.

CONTINUED DROUGHT RESPONSE IN FRESNO, KINGS, TULARE, AND TUOLUMNE COUNTIES

11. The Water Board will continue to prioritize new and amended safe drinking water permits that enhance water supply and reliability for community water systems facing water shortages or that expand service connections to include existing residences facing water shortages.
12. The Department and the Water Board will accelerate funding for local water supply enhancement projects and will continue to explore if any existing unspent funds can be repurposed to enable near-term water conservation projects.
13. The Water Board will continue to work with local agencies to identify communities that may run out of drinking water, and will provide technical and financial assistance to help these communities address drinking water



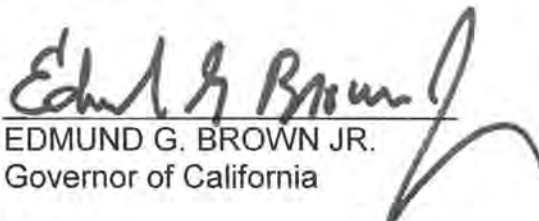
shortages. It will also identify emergency interconnections that exist among the State's public water systems that can help these threatened communities. The Department, the Water Board, the Office of Emergency Services, and the Office of Planning and Research will work with local agencies in implementing solutions to those water shortages.

14. For actions taken in the Counties of Fresno, Kings, Tulare, and Tuolumne pursuant to directives 11–13, the provisions of the Government Code and the Public Contract Code applicable to state contracts, including, but not limited to, advertising and competitive bidding requirements, as well as Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division, are hereby suspended. These suspensions apply to any actions taken by state agencies, and for actions taken by local agencies where the state agency with primary responsibility for implementing the directive concurs that local action is required, as well as for any necessary permits or approvals required to complete these actions.
15. California Disaster Assistance Act Funding is authorized until June 30, 2017 to provide emergency water to individuals and households who are currently enrolled in the emergency water tank program.
16. State departments shall commence all drought remediation projects in Fresno, Kings, Tulare, and Tuolumne Counties within one year of the date of this Executive Order.

This Executive Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 7th day of April 2017.


EDMUND G. BROWN JR.
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

