<table>
<thead>
<tr>
<th></th>
<th>OPEN MEETING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>ROLL CALL</td>
</tr>
<tr>
<td>3</td>
<td>AGENDA REVIEW AND APPROVAL</td>
</tr>
<tr>
<td>4</td>
<td>NEW/UNFINISHED BUSINESS</td>
</tr>
<tr>
<td></td>
<td>A.  PC-2021-07, 5 Year Master Plan Update</td>
</tr>
<tr>
<td>5</td>
<td>ADJOURNEMENT</td>
</tr>
</tbody>
</table>
The Charter Township of Orion Planning Commission Workshop will be held in-person at the above address, as well as, being held simultaneously via video conferencing (as detailed below). Due to the ongoing health concerns arising out of COVID-19 and the possible need to comply with Covid related orders or regulations, the Township may need to hold and reserves the right to convert the in-person public meeting to a video conference only.

The following is information of how to attend the meeting via video conference (GoToMeeting App.). The video conference can be accessed by downloading the GoToMeeting app. The meeting number is 599-669-285.

1. **OPEN MEETING**

2. **ROLL CALL**

3. **AGENDA REVIEW AND APPROVAL**

4. **NEW/UNFINISHED BUSINESS**
   A. PC-2021-07, 5 Year Master Plan Update

5. **ADJOURNMENT**

In the spirit of compliance with the American with Disabilities Act, individuals with a disability should feel free to contact the Township at least seventy-two hours in advance of the meeting, if requesting accommodations.
COMMUNITY ENGAGEMENT

- Dedicated webpage for the update
  - 2021 Master Plan Update

- Online surveys
  - Orion Township Picture This!™ & Market Assessment Survey (closed)

- In person
  - Open house, June 2021

- Focus groups and meetings
  - Staff Leadership Advance Meeting, Feb 09, 21

- Student Art Contest
  - Great Places!
OPEN HOUSE STATIONS

1. Demographics & Economics
2. Market Assessment Survey
3. Housing
   - Preferred development style in rural areas
   - Preferred housing style in dense areas
   - Building form & style (single-family)
4. 15-Minute Neighborhoods
   - Location
   - Village
   - Hamlet
5. Natural Features and Sustainability
6. Complete Streets & Community Facilities
7. Land Use
8. Spending Priorities

✓ Handouts will be provided at stations for written responses
✓ Visual Preference Survey
   Respondents participate by placing a dot on their preferred image
✓ Map handouts will be provided to identify areas for improvement
Present a summary of existing conditions

Population
- Understanding the demographics of a community is vital to sound policy making and planning. Demographics inform the trend in population size, migration, labor economics, and much more. Maple Planning’s demographic analysis is better prepared for the issues and demands facing a community in the present and the future. The demographic makeup of the community contains valuable information that affects the types of services, programming, and physical infrastructure required to meet the needs of residents and businesses. Proper planning for the future must consider the composition of the population and consider its future composition. Understanding the makeup of the population is key to go beyond just projecting future needs.
- Population Growth
  - 2020: 7,826
  - 2030: 8,417
  - 2040: 9,217
  - 2050: 10,000

Local Economy
- Identifying trends in employment can help a community project future needs for land for certain use categories and assess potential support utilities for economic development. This section provides a brief overview of the township’s existing economic base. This plan also includes a market study that looks deeply at commercial demand and employment and businesses.

Educate
- Handouts will be provided at stations for written responses

Engage
- What types of employment centers / industries should Orion Township pursue/encourage?
- What other comments would you like to offer on these topics?
Summary of responses from the online survey:

52 Questions, 4 major categories

- Shopping and Related Spending
- Select Entertainment Activity
- Housing
- Demographics & Lifestyles

 ✓ Findings from the Market Assessment will be available for the Open House
✓ Precedent images for street frontage options in rural areas
✓ Provide incentives for a 150-200-foot lot setback from rural thoroughfares. Allow corresponding reduction in lot size. The 200' buffer would contain existing vegetation, rural fencing or similar elements.

What is the preferred road corridor character in rural areas in the rural areas of the township?
✓ Maintain status quo (lots located adjacent to thoroughfare right-of-way)
✓ Provide incentives for a 150-200-foot lot setback from rural thoroughfares.
Information about missing middle housing

Precedent images for different type of Missing Middle Housing

**Visual Preference Survey**
Respondents participate by placing a dot on their preferred image

- Is there a need for missing middle housing types in the more densely populated areas of the township?
- What are the preferred housing types for areas planned for denser development?
Visual Preference Survey
Respondents participate by placing a dot on their preferred image

- Precedent images for non-traditional single-family homes
- Precedent images for evolving housing trends
- Building form and shapes (single-family homes)
  - Side entry garage
  - Front facing garage (garage extending from facade of living area)
  - Front facing garage (garage recessed from facade of living area)

Should the township pursue/encourage different types of housing forms than the traditional single-family housing?
15 MINUTE NEIGHBORHOODS | 1

✓ 15-minute Neighborhoods: What is a 15-minute Neighborhood? The definition can vary, but for the purpose of the plan it is a place where you can access some of your daily needs (food, local services, local goods) within a 15-minute bike ride from your home. Each 15-minute neighborhood typically has a village or hamlet at its core.

Handouts will be provided at stations for written responses

✓ Do you support overall idea of 15-minute neighborhoods?
Handouts will be provided at stations for written responses

1. Lake Orion. Village
2. Gingellville. Village
3. Decker. Hamlet

- What uses would you like to see at the center of each 15-minute neighborhood?
- What physical improvements would you like to see (safety paths, street lights, bike lanes, etc.)?
- Any other comments you would like to share?
Villages

- Village: A mixed use area with a small-town downtown character (e.g., Village of Lake Orion)
  - Lake Orion | Flint and Broadway (Lake Orion)
  - Gingellville | Maybee and Baldwin
- Existing vision for development of these areas
- Precedent images for Village-style core areas

Do you support establishing a 15-minute neighborhood around the Village of Lake Orion and the Gingellville/Baldwin areas?

Handouts will be provided at stations for written responses.
Hamlets

✓ Hamlet: A small settlement with some mix of uses, but containing a form that is more rural in character.
  - Decker | Squirrel and Silverbell
  - Friendship Woods | Clarkston and Baldwin

✓ Would require updated zoning for hamlet-style development
✓ Precedent images for Hamlet-style core areas

Do you support Hamlet with buildings setback, limited commercial at the neighborhood core to promote pedestrian connectivity?
✓ Are the Decker and Friendship Woods locations appropriate for Hamlet style developments?
Natural Features & Sustainability

- Sustainable development practices seek to promote and enable the long-term well-being of people and the planet through efficient use of natural resources and production of wastes, and includes healthy and livable communities that are inclusive.

- Examples of sustainable actions include recycling and use of recycled products, energy efficiency, preservation of important natural resources, and integrating more walkability and bikability into the transportation system.

Handouts will be provided at stations for written responses

- How important are sustainable development principles?
- Should the township do more to require developers to preserve large existing trees or require developers to pay into a tree fund to install trees elsewhere within the township, such as along roads or within parks?
COMPLETE STREETS & COMMUNITY FACILITIES

- Existing road classification
- Existing community facilities
- Existing and proposed sidewalks, paths and trails

Handouts will be provided at stations with a map for written responses and to mark areas for future connections.

- What enhancements would you make to improve mobility, walkability and cycling in the township?
- Circle the area (separate sheet provided) where you think there should be a future pedestrian, bike path/lane connection?
LAND USE

- Existing land use classifications

Mark areas of the township that have a potential for redevelopment, if any.

Are there any missing land uses that should be in the township?

Are there any land uses the township should discourage?

Handouts will be provided at stations with a map for written responses and to mark areas for potential land use changes.

[Map of Orion Township showing existing land use classifications]
### SPENDING PRIORITIES

<table>
<thead>
<tr>
<th>Bike Paths</th>
<th>Sidewalks</th>
<th>Shade Trees &amp; Pedestrian Amenities along Major Roads</th>
<th>Widen Roads</th>
<th>Expand Transit</th>
</tr>
</thead>
<tbody>
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<thead>
<tr>
<th>Natural Resource Protection</th>
<th>Extend Water and Sewer to Undeveloped Areas</th>
<th>Community Art Projects</th>
<th>Police and Fire Facilities</th>
<th>New/Improved Parks</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

- Each dot represents $1 Million – please place the dots in the box below your preferred investment to reflect your area. You may use more than one dot per box.
NEXT STEPS
Acknowledgments

To Be Completed
Resolution of adoption
What is in this Master Plan?

1. Purpose of the Master Plan
   - Executive Summary

2. History
   - Regional Setting
   - Existing Land Use
   - Demographics
   - Local Economy
   - Environment

3. Public Input
   - Goals and Objectives
   - Housing
   - Economic Development
   - Infrastructure
   - Complete Streets
   - Future Land Use

4. Zoning Plan
   - Action Strategies
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**More to Come.....**
Introduction

Purpose of Master Plan

This 2022 Master Plan Update represents an opportunity to affirm, reevaluate, and update the course of land development within Orion Township as identified and described in the 2015 Master Plan. This Plan contains the community's updated vision, goals, objectives, and strategies as developed during the collaborative process of updating the Plan that began in the fall of 2020. As with the 2015 Master Plan, the Plan is intended to guide future decision-making processes related to land development, as well as address the community's quality of life that results from both short-term and long-term planning decisions. Lastly, this Plan seeks to be an informative document for those that may not be aware of the many community-based initiatives that Township leadership, staff, and others have been continually working towards to advance Orion Township since the 2015 Master Plan and prior.

A sound Master Plan promotes a land use pattern that reflects a community's goals. It addresses planned future land uses and desired development, and other community features and amenities in a coordinated and organized manner. It portrays a clear statement of Orion Township goals and objectives, establishes a vision of the future, and includes a structure to achieve this vision through zoning and other means. If followed carefully, the Master Plan will have a lasting impact on the built and natural environment. Decisions made when the Plan is developed will likely be implemented over short-term, medium-term, and long-term timelines as specified in the Implementation Plan, which functions as an action-oriented conclusion of this Plan. This Implementation Plan should be referenced and considered by township stakeholders on a regular basis as part of day-to-day functions and long-term community planning considerations and initiatives.

While the Master Plan is desired to be a living document, it is long-range in its view and is intended to guide development in the township over a period of 10 to 20 years based on the information we have today, with reviews and any necessary updates occurring every five years in order to maintain required consistency with the Michigan Planning Enabling Act of 2008. The information and concepts presented in this Master Plan are to be used as a guide for local decisions on public and private uses of land and the provision of public facilities and services. This Plan also contains recommendations that directly relate to Township ordinances, specifically the Zoning Ordinance, and may also be of value for regional initiatives and improvements, such as roads and regional parks, that may not be directly controlled by the Township but may be influenced by the information contained within the Plan.
History

Township Settlement

Orion Township was historically settled for agriculture and forestry. In 1819, Judah Church and John Wetmore purchased land in the midwest portion of the township to harvest timber. This area was once known as “The Big Pinery” due to its abundance of large trees. However, the majority of early township settlement occurred in the southeast portion of the township. Jesse Decker was one of the first pioneers to locate in this area which became commonly referred to as “Decker Settlement” by locals. This was a collection of farms that were created from cleared woodlands that once covered this area, which may have contributed to this location being the first sawmill constructed in the township. A historical marker located on the south side of East Greenshield Road, just west of Kern Road acknowledges the location of Decker’s Settlement and Jesse Decker’s importance to Orion Township’s early formation.

Above: Historical Marker recognizing Jesse Decker
Source: Giffels Webster (2021)

Above: Historical Marker memorializing the settlement and original founders of the township
Source: Giffels Webster (2021)
Impact of Transit

In 1872, the Detroit and Bay City Railroad, later known as the Michigan Central Railroad, was constructed through the northeast portion of the township connecting Detroit to Oxford, with the connection to Bay City completed in 1873. Through Orion Township the railroad was constructed on an old Native American trail that followed Paint Creek. Due to the limited means of transportation during this time, the opening of this railroad facilitated the flow of township agricultural products to larger markets and provided access to needed goods for township residents. In addition to its economic benefit, the unified ownership of the railroad corridor helped to preserve this old Native American trail route for reuse.

Above: A portion of the Detroit United Railway Map showing the portion of the route that traveled from Detroit through Orion Township, eventually ending up in Flint.

Source: Detroit United Railway

Above: Detroit United Railway Map showing the portion of the route that traveled from Troy to Flint.

Right: "Flint Division Excerpt" of a Detroit United Railway Brochure

Source: Detroit United Railway
Interurban Transit

During the early 20th Century, Orion Township was also accessible using the Detroit United Railway (D.U.R.), which was a consolidated transit company that was in operation from 1900 to the 1920’s operating across the City of Detroit and providing access to suburban communities. Orion Township was part of the D.U.R.’s Flint Division line, which connected Orion with Goodison and Rochester to the south, and several communities to the north, ending at Flint. From D.U.R. brochure “Trolley Rides in City and Country”:

Left: A brochure advertising trolley rides on the Detroit United Railway.

Above: All three photos above show the Detroit United Railway Depot Station that was located in Orion.

Source: Detroit United Railway
Rail to Trail

In the 1970’s, the last rail line operator, Penn Central Railroad, abandoned the line and filed for bankruptcy. With railroad use ending, Oakland County and Orion Township began planning for the use of a trail through the corridor, which consisted of 8.9 miles of former railroad right-of-way connecting Rochester and Lake Orion. In 1981, the Paint Creek Trailways Commission was formed with the purpose of purchasing this land from the railroad for what today is known as the Paint Creek Trail, the first rail-to-trail conversion in the state. Please refer to the Paint Creek Trailways Commission for more information on this historic regional rail trail.

Above: A sign located along the Paint Creek Trail in Orion Township denotes mile maker 38 of the former Michigan Central Railroad. The lines has since been converted to a non-motorized path.

Source: Giffels Webster (2019)

Above: A Map of the Paint Creek Trail, which connects Rochester to Lake Orion and traverses through Orion Township.

Source: Paint Creek Trail

Above: The Paint Creek Trail in Orion Township is a popular destination for those looking to get outdoors all year round.

Source: Giffels Webster (2019)
Lake Orion

Lake Orion, known as Lake Canandaigua prior to 1834, is primarily man-made through the use of numerous dams. Prior to 1936, the lake was smaller than its current area and outletted to Paint Creek. In order to provide adequate water flow for water-powered mills, a dam was constructed. Over the years, a number of different dams were constructed as previous ones failed and often destroy mills relying on the water flow.

As the route of the railroad ran along Lake Orion, a new, safer dam was constructed to ensure that the railroad grade would be stable. This new dam was higher and longer than the older mill dams, which enlarged the area of Lake Orion. With this new safer dam, water-driven mills because more practical and were a great benefit to the township’s lumber and agriculture industries.

Wildwood Farm (Canterbury Village)

From the Orion Historical Society: “In 1916, William E. Scripps heir to the Detroit News, founded Wildwood Farm as a land reclamation project to make over farmed land productive once again. He eventually acquired 3,830 acres and relocated earlier pioneer barns to a site on Joslyn Road, adding other farm buildings, manager housing, and a school for the farm’s children. He developed one of the foremost stockbreeding enterprises in America, and he developed a strain of disease-resistant Aberdeen Angus (Black Angus) beef. Scripps also raised purebred sheep, cows, swine, and chickens and had a modern dairy operation. Today, the original farm buildings are now incorporated into the unique shopping complex known as Canterbury Village. Visitors there can see the intact manager cottages, an original Hadrill family farmhouse, and the remains of several barns, including the large dairy barn, now converted to shops. Much of the farm’s land and lakes are now parks and continue to provide for local wildlife as part of Orion Township’s Civic Center Park, Oakland County’s Orion Oaks Park, and Bald Mountain State Recreation Area.”

Above: “Lake Orion, Mich. from R.R. tracks 1890-1901”
Source: Library of Congress

Above: Lake Orion as seen from Heights Road in the Winter of 2021.
Source: Giffels Webster (2021)
Scripps Estate (Guest House)

From the Orion Historical Society: “Ten years after establishing the farm, Scripps and his wife Nina Downey Scripps began building a country retreat on part of the estate. Scripps engaged his talented brother-in-law, Clarence E. Day, to design the Norman revival style mansion with all the modern amenities available at the time. The result is one of the most artistically important American country estate homes of the era. After William Scripps died in 1952, the estate was subdivided, and Guest House, Inc., became the owner of the house and a little over 100 acres of grounds in 1956. At the time, the newly formed non-profit needed the right facility to begin its progressive treatment facility for alcoholic priests. The former Scripps house was ideal as a quiet place for clients to begin their recovery. In 1993, the priests moved to a facility in Minnesota, and the Orion Township site became a facility for religious women recovering from addictions. This year (2007), a modern treatment center has been built on the grounds for the clients. The house will continue to be used for treatment but will be more accessible to the public for programs and tours.”

Historical Resources

For additional detailed information on the history of Orion Township, please refer to the Oakland County Historical Resources and the Orion Historical Society. This includes the publication “Orion Since 1818” by Paul M. Scott, which was commissioned by the Orion Township Library Board in 1976 in honor of the American Revolution Bicentennial and is one of the most comprehensive documents on the history of Orion Township. Additionally, the historic Howarth School House, a Michigan State Register of Historic Sites, and Porritt Barn have been relocated to Orion Parks’ Friendship Park for preservation and enjoyment by the public. Please refer to the Orion Township Parks and Recreation Plan for more information on Friendship Park.

Above: A historical marker denotes the site of the William E. Scripps estate.

Source: Giffels Webster (2021)
Location & Regional Setting
Location and Regional Setting

Established in 1835, the Charter Township of Orion, commonly referred to as Orion Township, is part of Metropolitan Detroit and is situated in northeast Oakland County. Orion Township is approximately 35 square miles excluding the home rule Village of Lake Orion located in the northeast corner of the township. Orion Township and the Village of Lake Orion have a close relationship due to this proximity, and township and village areas are often referred under the same name of “Lake Orion” or “Orion”. The Village of Lake Orion has a local governance structure that is separate from Orion Township, however, Village residents are also part of the Township, they participate in Township functions, and they vote in Township elections. The Village has a separate Village master plan and zoning functions that are not shared due to this separate governance structure, which is rooted in State of Michigan enabling legislation.

The City of Pontiac, 10 miles to the south of Orion Township, is the seat of Oakland County and is the closest urbanized area to Orion Township. Pontiac is separated from Orion Township by the City of Auburn Hills, which is formerly part of Pontiac Township and borders the entire south boundary of Orion Township. The City of Lake Angelus is also between Pontiac and Orion Township though it does not share a border with Orion Township.

Notably, Orion Township is equidistant from the City of Detroit, 35 miles to the south, and the City of Flint, 35 miles to the north, and has direct access to both cities via Interstate 75 which crosses near the south boundary of Orion Township. Interstate 75 is highway of regional and national significance, which has a direct local impact on the residents and economy of Orion Township.

Orion Township is bordered by Oakland Township to the east, Oxford Township to the north, and Independence Township to the west. Independence Township includes the Village of Clarkston which is connected to Orion Township by Clarkston Road and Waldon Road, which are significant local east-west corridors through the area. Oxford Township and the Village of Oxford share a close relationship with Orion due to the Village of Oxford’s close proximity and direct access provided by M-24/Lapeer Road, which is a limited access highway of regional and statewide importance.

Lastly, land devoted to parks and recreation accounts for over 25 percent of the land area within the township. This area includes township parks, Orion Oaks County Park, and the Bald Mountain State Recreation Area, which includes three large state-owned areas within and to the east of Orion Township.
Demographics
Population

Understanding the demographics of a community is vital to sound policy making and planning. Demographics inform the trends in population, aging, migration, local economies, and much more. Master Plans rely on demographic analysis to better prepare for the issues and demands facing a community in the present and the future. The demographic makeup of a community contains valuable information that affects the types of resources, programming, and physical infrastructure required to meet the needs of residents and businesses. Proper planning for the future must consider the composition of the population and consider its likely future composition. Understanding where the township has been and where it is likely to go is essential to projecting future needs.

POPULATION GROWTH

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>30,748</td>
</tr>
<tr>
<td>2010</td>
<td>32,421</td>
</tr>
<tr>
<td>2020</td>
<td>37,177</td>
</tr>
<tr>
<td>2030</td>
<td>35,409</td>
</tr>
<tr>
<td>2040</td>
<td>37,269</td>
</tr>
</tbody>
</table>

POPULATION AGE

- 0-14: 19%
- 15-64: 63%
- 65+: 18%

Median Age: 40.3

Households

- Total Households: 13,158
- Average Household Size: 2.46

RACE

- White: 93.09%
- Black: 2.60%
- Asian: 2.33%
- Multi-Racial: 1.44%
- Other: 0.35%

EDUCATIONAL ATTAINMENT

- Some College, No Degree: 20.40%
- Bachelor’s Degree: 24.68%
- Associate Degree: 7.90%
- High School Graduate: 16.59%
- Did Not Graduate High School: 5.90%
- Graduate / Professional Degree: 20.40%

Source: 2019 ACS data via SEMCOG Community Explorer
Population Density by Census Tract
2019 ACS 5-Year Estimate
ORION TOWNSHIP
Population Cohort Analysis

It is essential to understand the population’s composition by age and sex to have a proper insight into demographic conditions and socio-economic trends. Orion has an almost equal distribution of male and female population on average. However, the ratio varies with age (see chart to the below). As they age, the ratio of females to males is increasing.

Race

The racial composition in Orion Township is predominantly white at 89.3%, Orion’s racial distribution is consistent with most of the surrounding communities except for the more diverse city of Auburn Hills. Orion Township also has a higher white population percentage than the county and SEMCOG, whose total population are 72% and 67% white, respectively.

![Population Distribution by Age and Sex](chart)

*Source: 2019 ACS data via SEMCOG Community Explorer*

![Race Distribution: Surrounding Communities](chart)

*Source: 2019 ACS data via SEMCOG Community Explorer*
Surrounding Communities

The demographic composition of Orion Township incorporates data about race, age, housing, population trends, income, education, and employment. This section compares the township’s demographic characteristics to neighboring communities that share a border with Orion.

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Oakland County</td>
<td>1,259,461</td>
<td>1,202,362</td>
<td>1,194,156</td>
<td>5%</td>
</tr>
<tr>
<td>Oxford Twp.</td>
<td>20,420</td>
<td>16,779</td>
<td>13,071</td>
<td>36%</td>
</tr>
<tr>
<td>Auburn Hills</td>
<td>18,285</td>
<td>17,090</td>
<td>12,485</td>
<td>32%</td>
</tr>
<tr>
<td>Orion Twp.</td>
<td>37,177</td>
<td>32,421</td>
<td>30,748</td>
<td>17%</td>
</tr>
<tr>
<td>Independence Twp.</td>
<td>35,003</td>
<td>34,681</td>
<td>32,581</td>
<td>7%</td>
</tr>
<tr>
<td>Lake Orion</td>
<td>2,877</td>
<td>2,973</td>
<td>2,715</td>
<td>6%</td>
</tr>
<tr>
<td>Waterford Twp.</td>
<td>74,685</td>
<td>71,707</td>
<td>71,981</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: 2019 ACS data via SEMCOG Community Explorer

Population Growth

Many communities surrounding Orion Township and in Oakland County have been experiencing an increase in population since 2000. Oakland Township (36%), Oxford Township (32%) and the City of Auburn Hills (25%) have experienced the highest population growth between 2000 and 2019, followed by Orion Township.

Persons per Acre

Orion Township maintains a similar density compared to surrounding areas, with density increasing south of the township and decreasing to the north. The graph at the bottom of the page provides a comparison to some surrounding communities.

Older and young adult population

Compared to surrounding communities, Orion Township has a comparable percentages of the aging population over 65 years and a comparable percentage of the population of people between ages 5 to 16. This distribution essentially focuses on dependent people who are unlikely the primary breadwinners. This indicates that the share of people dependent on others’ income.

Source: 2019 ACS data via SEMCOG Community Explorer
Educational Attainment

The highest levels of educational attainment result in a higher skill set and ultimately contribute to the local job growth. In general, about 80% of residents older than 25 years have some kind of associate of a higher degree past high school. Orion Township has a comparable percentage of bachelor degrees or higher graduates among the surrounding communities.

Households

In 2019, there are a total of 11,673 households in Orion Township. Nearly half of the households are couples with no children (46%), and approximately 35% of the households are families with children. The remaining percentage is split between adults and elders who live alone. The average household size is slightly higher than the surrounding area, with 2.73 members per household.

Source: 2019 ACS data via SEMCOG Community Explorer

<table>
<thead>
<tr>
<th>PERCENT BACHELORS DEGREE OR HIGHER: SURROUNDING COMMUNITIES</th>
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</thead>
<tbody>
<tr>
<td>Auburn Hills</td>
</tr>
<tr>
<td>Independence Twp</td>
</tr>
<tr>
<td>Lake Orion</td>
</tr>
<tr>
<td>Oakland Twp</td>
</tr>
<tr>
<td>Orion Twp</td>
</tr>
<tr>
<td>Oxford Twp</td>
</tr>
<tr>
<td>Rochester Hills</td>
</tr>
<tr>
<td>Waterford Twp</td>
</tr>
</tbody>
</table>

Source: 2019 ACS data via SEMCOG Community Explorer

<table>
<thead>
<tr>
<th>HOUSEHOLD TYPES</th>
<th>Percent with Seniors</th>
<th>Percent with children</th>
<th>Average Household Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE Michigan</td>
<td>28.9 %</td>
<td>28.8 %</td>
<td>2.54</td>
</tr>
<tr>
<td>Oakland County</td>
<td>28.8 %</td>
<td>28.5 %</td>
<td>2.46</td>
</tr>
<tr>
<td>Auburn Hills</td>
<td>21.7 %</td>
<td>23.2 %</td>
<td>2.31</td>
</tr>
<tr>
<td>Independence Twp</td>
<td>26.2 %</td>
<td>33.8 %</td>
<td>2.70</td>
</tr>
<tr>
<td>Lake Orion</td>
<td>28.9 %</td>
<td>27.8 %</td>
<td>2.22</td>
</tr>
<tr>
<td>Oakland twp</td>
<td>28.6 %</td>
<td>41.5 %</td>
<td>2.99</td>
</tr>
<tr>
<td>Orion Twp</td>
<td>22.4 %</td>
<td>34.7 %</td>
<td>2.73</td>
</tr>
<tr>
<td>Waterford Twp</td>
<td>27.5 %</td>
<td>25.4%</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Source: 2019 ACS data via SEMCOG Community Explorer
Local Economy
Local Economy

Identifying trends in employment can help a community project future need for land for certain use categories and assess potential opportunities for economic development. This section provides a brief overview of the township’s existing economic base. This plan also includes a market study that looks deeply at commercial demand and employment and businesses.

**WORKFORCE**

- **TOTAL JOBS**: 17,033
- **UNEMPLOYMENT**: 2.5%

**INCOME**

- **MEDIAN HOUSEHOLD INCOME**: $98,741
  - 2010: $91,493
- **PER CAPITA INCOME**: $44,957
  - 2010: $39,265
- **POVERTY RATE**: 5.8%
  - Households in Poverty

**HOUSING**

- **MEDIAN HOUSING VALUE**:
  - COUNTY: $242,000
  - $269,000
- **MEDIAN GROSS RENT**:
  - COUNTY: $1,080
  - $1,094

**TRANSPORTATION**

- **MEAN COMMUTE TIME**:
  - COUNTY: 25.6 MIN
  - 26.9 minutes
- **MODE OF COMMUTE**:
  - Drove alone 87.88%
  - Worked at Home 5.05%
  - Walked 1.01%
  - Carpool 6.06%

**INFLOW-OUTFLOW**

Source: 2019 ACS data via SEMCOG Community Explorer
Workforce

In 2020, Orion Township produced an estimated 17,469 jobs. The chart (right) shows the distribution of employment sectors for the township. There is no dominant sector that contributes majorly to the local economy, however, the public administration, wholesale trade and other services trades comprise about a third of all jobs. The percent contribution of each of these industries to the total employment within the township is relatively identical since 2015 and is projected to remain the same with minimal variation in 2045. The total number of jobs is projected to increase by 398 jobs from 2020 to 2045, which represents a 2.3% rate of jobs growth. Refer to the table below for more details. A robust economic development program could substantially increase this number.

<table>
<thead>
<tr>
<th>EMPLOYMENT SECTORS (PAST, PRESENT AND FUTURE)</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
<th>2045</th>
<th>Change 2015-2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employment Numbers</td>
<td>17,033</td>
<td>17,469</td>
<td>17,269</td>
<td>17,179</td>
<td>17,373</td>
<td>17,456</td>
<td>17,431</td>
<td>398</td>
</tr>
<tr>
<td>Public Administration</td>
<td>2458</td>
<td>2600</td>
<td>2613</td>
<td>2586</td>
<td>2575</td>
<td>2552</td>
<td>2493</td>
<td>35</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>2885</td>
<td>2576</td>
<td>2415</td>
<td>2224</td>
<td>2102</td>
<td>1995</td>
<td>1880</td>
<td>-1005</td>
</tr>
<tr>
<td>Other Services</td>
<td>1690</td>
<td>1745</td>
<td>1768</td>
<td>1778</td>
<td>1,817</td>
<td>1,859</td>
<td>1,884</td>
<td>194</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1611</td>
<td>1692</td>
<td>1691</td>
<td>1712</td>
<td>1752</td>
<td>1759</td>
<td>1779</td>
<td>168</td>
</tr>
<tr>
<td>Information &amp; Financial Activities</td>
<td>1,368</td>
<td>1,499</td>
<td>1,539</td>
<td>1,558</td>
<td>1,592</td>
<td>1,664</td>
<td>1,659</td>
<td>291</td>
</tr>
<tr>
<td>Leisure &amp; Hospitality</td>
<td>1,219</td>
<td>1,253</td>
<td>1,223</td>
<td>1,200</td>
<td>1,194</td>
<td>1,184</td>
<td>1,168</td>
<td>-51</td>
</tr>
<tr>
<td>Professional and Technical Services &amp; Corporate HQ</td>
<td>1,175</td>
<td>1,233</td>
<td>1,159</td>
<td>1,253</td>
<td>1,349</td>
<td>1,332</td>
<td>1,346</td>
<td>171</td>
</tr>
<tr>
<td>Transportation, Warehousing, &amp; Utilities</td>
<td>975</td>
<td>1126</td>
<td>1072</td>
<td>1057</td>
<td>1068</td>
<td>1079</td>
<td>1091</td>
<td>116</td>
</tr>
<tr>
<td>Healthcare Services</td>
<td>1,014</td>
<td>1,095</td>
<td>1,147</td>
<td>1,184</td>
<td>1,274</td>
<td>1,365</td>
<td>1,450</td>
<td>436</td>
</tr>
<tr>
<td>Natural Resources, Mining, &amp; Construction</td>
<td>1,020</td>
<td>992</td>
<td>993</td>
<td>992</td>
<td>1004</td>
<td>1009</td>
<td>1023</td>
<td>3</td>
</tr>
<tr>
<td>Education Services</td>
<td>904</td>
<td>925</td>
<td>923</td>
<td>913</td>
<td>913</td>
<td>912</td>
<td>905</td>
<td>1</td>
</tr>
<tr>
<td>Administrative, Support, &amp; Waste Services</td>
<td>576</td>
<td>595</td>
<td>589</td>
<td>587</td>
<td>598</td>
<td>611</td>
<td>618</td>
<td>42</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>138</td>
<td>138</td>
<td>137</td>
<td>135</td>
<td>135</td>
<td>135</td>
<td>135</td>
<td>-3</td>
</tr>
</tbody>
</table>

Source: SEMCOG 2045 Regional Development Forecast
Employment

The total number of jobs in the township makes up 1.7% of the total jobs in the county. The township's unemployment rate is lower than the county's and is lower than the rate in surrounding communities. The labor force participation rate of 70% is higher than the surrounding areas and the national average of 62.8%. A higher labor force participation rate and a lower unemployment rate indicate a successful local job market. These rates are impacted by demographic and economic trends. For example, adults aged 25-64, people who are typically in the workforce make up to 63% of the total township population which explains the 70% labor participation rate.

<table>
<thead>
<tr>
<th>Total Jobs</th>
<th>Percent Unemployed</th>
<th>Labor Force Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE Michigan</td>
<td>2,774,223</td>
<td>63%</td>
</tr>
<tr>
<td>Oakland County</td>
<td>960,562</td>
<td>66%</td>
</tr>
<tr>
<td>Orion Twp</td>
<td>17,033</td>
<td>70%</td>
</tr>
<tr>
<td>Auburn Hills</td>
<td>66,539</td>
<td>69%</td>
</tr>
<tr>
<td>Independence Twp</td>
<td>17,024</td>
<td>68%</td>
</tr>
<tr>
<td>Lake Orion</td>
<td>1,945</td>
<td>71%</td>
</tr>
<tr>
<td>Oakland twp</td>
<td>5,151</td>
<td>66%</td>
</tr>
<tr>
<td>Rochester Hills</td>
<td>41,559</td>
<td>63%</td>
</tr>
<tr>
<td>Waterford Twp</td>
<td>33,441</td>
<td>67%</td>
</tr>
</tbody>
</table>

Source: 2019 ACS data via SEMCOG Community Explorer

Income

Median household income and per capita income (average income per person) are typical metrics to determine the standard of living in a community. Orion Township has a median household income of $98,741, which is significantly higher than the county median of $79,698. The township has a per capita income of $44,958.

<table>
<thead>
<tr>
<th>Median Household Income</th>
<th>Average Income Per Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE Michigan</td>
<td>$61,926</td>
</tr>
<tr>
<td>Oakland County</td>
<td>$79,698</td>
</tr>
<tr>
<td>Orion Twp</td>
<td>$98,741</td>
</tr>
<tr>
<td>Auburn Hills</td>
<td>$64,186</td>
</tr>
<tr>
<td>Independence Twp</td>
<td>$94,018</td>
</tr>
<tr>
<td>Lake Orion</td>
<td>$90,999</td>
</tr>
<tr>
<td>Oakland twp</td>
<td>$146,228</td>
</tr>
<tr>
<td>Rochester Hills</td>
<td>$93,953</td>
</tr>
<tr>
<td>Waterford Twp</td>
<td>$62,321</td>
</tr>
</tbody>
</table>

Source: 2019 ACS data via SEMCOG Community Explorer
Housing

Housing represents the strength of the local economy and overall community appeal. Older housing reflects the physical, historic and social context of a community. The age of housing influences local housing policies for rehabilitation and redevelopment. Older houses require additional maintenance and upkeep, and may also require upgrades to ensure energy efficiency, barrier free access and increased livability for aging adults. In 2019, of the township’s 13,880 housing units, 78% were owner-occupied, 19% were occupied by renters and 5% remained vacant. This is consistent with the county rates (see table).

Housing Value

Housing values in the township have remained stagnant since 2010, with a slight (0.1%) median housing value decrease over that time. Overall the township has fared better than Oakland County since 2010, where overall values fell 3.4% from $251,248 to $242,700. the township has a median housing value of $269,000. See the table on the lower right for a regional comparison.

<table>
<thead>
<tr>
<th>Housing Values: Orion Township</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000,000 or more: 0.1%</td>
</tr>
<tr>
<td>$500,000 to $999,999: 8.6%</td>
</tr>
<tr>
<td>$300,000 to $499,999: 33.0%</td>
</tr>
<tr>
<td>$250,000 to $299,999: 15.0%</td>
</tr>
<tr>
<td>$200,000 to $249,999: 15.5%</td>
</tr>
<tr>
<td>$175,000 to $199,999: 7.8%</td>
</tr>
<tr>
<td>$150,000 to $174,999: 6.2%</td>
</tr>
<tr>
<td>$125,000 to $149,999: 4.6%</td>
</tr>
<tr>
<td>$100,000 to $124,999: 4.5%</td>
</tr>
<tr>
<td>$80,000 to $99,999: 2.0%</td>
</tr>
<tr>
<td>$60,000 to $79,999: 1.3%</td>
</tr>
<tr>
<td>$40,000 to $59,999: 0.5%</td>
</tr>
<tr>
<td>$30,000 to $39,999: 0.1%</td>
</tr>
<tr>
<td>$20,000 to $29,999: 0.3%</td>
</tr>
<tr>
<td>$10,000 to $19,999: 0.8%</td>
</tr>
<tr>
<td>Less than $10,000: 1.3%</td>
</tr>
</tbody>
</table>

Source: 2019 ACS data via SEMCOG Community Explorer

Housing Types

Single-family detached housing is the predominant housing type in the township, making up 66 % of all units. See the image below for more details. Since 2010, the number of single family homes increased while the other type of housing reduced. However, the change in both cases is insignificant.

<table>
<thead>
<tr>
<th>Housing Types: Orion Township</th>
</tr>
</thead>
<tbody>
<tr>
<td>78% Single Family</td>
</tr>
<tr>
<td>2010: 9,640</td>
</tr>
<tr>
<td>2019: 10,849</td>
</tr>
<tr>
<td>20% Multi-unit</td>
</tr>
<tr>
<td>2010: 2,395</td>
</tr>
<tr>
<td>2019: 2,718</td>
</tr>
<tr>
<td>2% Mobile Home / Other</td>
</tr>
<tr>
<td>2010: 263</td>
</tr>
<tr>
<td>2019: 315</td>
</tr>
</tbody>
</table>

Source: 2019 ACS data via SEMCOG Community Explorer
Transportation

In Orion Township, the majority mode of travel to work is by car alone (approximately 87%) which is similar to national trends. This is followed by carpooling at 6%, followed by 5% who work from home; 1% walk to work.

**Car Ownership**

In Orion Township, there is a total of 13,158 households. A majority of households (79.1%) have at least one car, which is above the county average.

**Travel Times**

In 2019, the mean travel time to work for Orion residents was about 26.4 minutes, which is comparable to the county mean (25.6) and United States (26.1).

**Commute Patterns**

Orion Township experiences a decrease in its population during the daytime, as the number of workers that leave the township for work is more than the number that come to the township for work. Overall, the township’s daytime population is about 21% smaller than its permanent population. Auburn Hills and Troy are the most common places of employment for Orion residents outside the city.
Environmental Conditions

Many residents have settled in Orion Township because they have been attracted by its natural features, such as lakes, wetlands, woodlands, rolling topography, and open spaces. These features are significant not only because of their strong appeal to residents, but also because they constitute a functioning ecosystem that has been largely unspoiled by human activity. While there are many opportunities for enjoyment and utilization of the natural resource base, particular features of the natural environment are incapable of supporting development or are of sufficient significance to be preserved. It is helpful to examine the various natural resource factors in detail to determine the opportunities and constraints for development, as well as to weigh the value of preservation. Sound land use depends on a keen awareness of the Township’s natural features. Accordingly, key natural features are highlighted in the text and maps which are included within this document.

Land

Wetlands and floodplains

Wetlands are a significant component in the water resources system. The term “wetlands” encompasses a variety of ecosystem types, which are classified by the depth of the water and the typical vegetation that grows in each. Examples in the Township include inland marshes, wet meadows, mudflats, ponds, bogs, bottomland hardwood forests, and wooded swamps. The Township contains approximately 500 acres of emergent wetlands (marshes), over 2,000 acres of forested wetlands, and almost 1,500 acres of scrub-shrub wetlands, for a total of 17% of the Township’s land area. Most of these wetlands are adjacent to lakes or streams.

Wetlands play an important role in controlling flooding and treating polluted stormwater runoff to improve water quality. During storm events, wetlands hold runoff and release it slowly to adjacent streams and lakes, which helps to reduce “flashy flows” and reduce stream bank erosion. During wet periods, the wetlands absorb water, thereby reducing shoreline flooding around lakes. During dry periods, the wetlands release water to the lakes to help maintain lake levels. Wetlands also help to maintain water quality by filtering sediment and pollutants before they reach the lakes and streams. Wetlands contribute significantly to the rural character of the community by providing critical wildlife habitat. Wetlands attract and retain many species of animals, birds, and other wildlife by providing a source of water, nesting, and feeding habitat. In turn, residents often identify the vegetation and animal life characteristically found in wetland areas as bringing a rural feeling to the community. Certain wetlands are unique, “high-value” ecological areas that should be identified and preserved. Excess stormwater flows should not be directed toward such wetlands that have special ecological significance. In addition, any wetland that is used for stormwater detention should only receive treated stormwater, and not in volumes greater than it receives under predevelopment conditions. See appendix for more information regarding wetland and floodplain regulation.

Woodlands

Tree stands and woodlands are another important component in Orion Township’s natural resource inventory. Significant tree stands predominantly consist of hardwoods, evergreens, or lowland brush. Many of the significant tree stands are found in conjunction with other natural resource features, such as wetlands or steep slopes. For example, approximately 50% (2,000 acres) of the Township’s wetlands are wooded. The Bald Mountain Recreation Area and Orion Oaks County Park contain hundreds of acres of heavily wooded land. The Township’s two (2) designated Natural Beauty Roads, Clarkston Road and Kern Road, on the east side of the Township, intersect a densely forested area.
Water

Over the years, the prime residential developments in Orion Township have been built around the Township’s many lakes. Most residents appreciate the recreational or scenic value of the lakes. However, the lakes represent only one component of the community’s extensive, inter-connected water system that also includes streams, wetlands and groundwater. The water system provides significant benefits for current and future residents of the Township, such as a source of drinking water, stormwater attenuation, water filtration and storage, and aesthetic and recreational benefits.

Watersheds

Orion Township is wholly located within the Clinton River Watershed. The Township’s entire land area ultimately drains to the Clinton River, which subsequently drains into Lake St. Clair. Within the Township, the Clinton River Watershed is broken down into stream-based watersheds, which include the Upper Clinton Watershed, the Stony/Paint Watershed, and the Clinton-Main Watershed. The watershed divisions were identified to facilitate the work the Township has been doing to comply with the Clean Water Act’s Phase II requirements for regulating stormwater. Since 2002, the Township has participated in watershed planning activities to obtain a stormwater permit from the state through the National Pollutant Discharge Elimination System (NPDES). Because Orion Township is located in three stream watersheds, they participate in three watershed groups to draft and implement watershed management plans for each. While each plan is unique, an analysis of the various watersheds revealed similar conclusions. In general, the streams and lakes within Orion Township have fairly good water quality and support aquatic organisms typically found within urbanizing areas. There are several areas of concern:

- Streams are becoming more “flashy,” or experiencing increased stream flows following storms. This is due to more development that keeps stormwater from naturally infiltrating the ground. Therefore, more water is reaching the streams (increased volume, runoff), faster.

Lakes

There are twenty-seven (27) natural lakes, covering about 8% (1,700 acres) of the total area of the Township. Many of the lakes are large enough for boating, fishing, swimming, and other water-oriented activities. Most of the major lakes are surrounded by residentially-developed land. Certain lakes have public access, including Lake Orion and Lower Trout Lake, which is located in the Bald Mountain Recreation Area. Lake Sixteen, located within the Orion Oaks County Park, has restricted access from Joslyn Road and from within the park itself. Orion Township’s lake also serve an important function as a natural stormwater detention system.

Lake Boards

Lake Boards can be created around any inland lake, and can cross municipal boundaries. Their most crucial power is the ability to create special assessment districts, which can raise money from lakefront property owners for lake protection and improvements. By creating an authority, with its own funding source, dedicated to protecting the lake, residents can take preservation or protection into their own hands.

Natural Shoreline Dynamics

Runoff is one of the primary concerns regarding the shoreline dynamics and water quality of inland lakes. Runoff can carry fertilizer and other undesirable substances into the water, some of which can cause an overgrowth of aquatic plants and alter the natural ecosystems in these lakes. It is crucial to protect natural ecosystems by managing development on the shoreline and in the watersheds of inland lakes. Communities can create best practices to protect inland lakes from erosion and runoff damage by encouraging the use of permeable pavement and growing native plants along the shoreline and in the watershed.
Invasive Species

Phragmites australis, is an invasive wetland grass that can grow up to fifteen (15) feet in height and spread between thirty (30) and fifty (50) feet per year. The invasive species has spread rapidly throughout Michigan’s coastal and interior wetlands, threatening ecological health and reducing property values. Due to their aggressive growth rate and height, phragmites crowd out native wetland plants, reduce access to recreational areas, and block lakefront views. In addition, dry phragmites material is highly flammable and can create fire hazards.

While difficult to remove, invasive phragmites can be controlled through combined management techniques including the use of herbicides, mowing and prescribed fires. However, an MDEQ permit is required to treat phragmites using herbicides for most inland lakes and wetlands. Clear steps must be taken to properly rid an area of phragmites; improper removal techniques can actually increase the invasive species’ rate of growth.

Several Michigan communities have recently enacted phragmites ordinances that address the control and removal of the invasive plant. Many of the example phragmites ordinances focus on removing the invasive plant along the shores of Lake Michigan. However, there are limited examples of ordinances that address the removal of phragmites from inland lakes and wetlands. Orion Township currently has a phragmites control program and holds a permit for application of approved chemicals. Herbicide treatment for phragmites usually occurs before the first frost of the year, in September or October.

Invasive Species (Source: Giffels Webster 2019)
Michigan Natural Feature Inventory

The Michigan Natural Features Inventory (MNFI) maintains a continuously updated information base, of Michigan’s endangered, threatened, or special concern plant and animal species, natural communities, and other natural features. MNFI has responsibility for inventoring and tracking the State’s rarest species and exceptional examples of the whole array of natural communities. MNFI also provides information to resource managers for many types of permit application regarding these elements of diversity.

In July of 2002, the Oakland County Planning and Economic Development Services Department worked with MNFI to identify potential conservation/natural areas within the County. The conclusions of the study were the identification of high, medium and low-ranking areas within each municipality. These rankings are based upon a set of criteria that include size, core area, street corridor, landscape connectivity, restorability and element occurrence.

Based upon the updated study in 2017, Orion Township has five (5) areas identified as priority one (highest ranking), numerous smaller areas ranked as priority two (medium ranking) and the open water/wetland areas identified as priority three (lowest ranking).

Portions of this area maybe lost to development, but the preservation of the remaining areas and their associated links to other natural resource sites may be preserved through various land use controls and preservation plan alternatives. To implement the green infrastructure plan, and better integrate ecological systems into development, the following techniques should be considered:

1. Encourage the use of the cluster development on parcels where sensitive ecosystems exist. This technique places roads, lots, and other development on land that is most capable of supporting it, and places the sensitive natural features in commonly-owned open space.
2. Create a detailed program to implement the green infrastructure plan, including goals & policies, priorities, action items, schedule, and funding mechanisms.
3. Adopt an impervious surface reduction/infiltration enhancement ordinance that describes site development standards and guides developers and individuals doing site plan review to find opportunities for less impervious surface and more water infiltration.
4. Enhance the natural feature setback/buffer regulations by allowing a flexible width buffer (larger for more sensitive features, smaller for less sensitive features) rather than a standard distance to help manage development near stream corridors and provide floodplain protection.
5. Adopt native vegetation guidelines that preserve native plants and encourage the use of native plants in landscaping. These plants are particularly helpful in riparian buffers to treat stormwater runoff and provide wildlife corridor links within the Township’s green infrastructure system. These guidelines could be enhanced by an ordinance that prohibits the use of exotic invasive plant species in landscaping, and supplemented by additional invasive species ordinances, such as a phragmites ordinance. These plants tend to take over natural areas and outcompete native species.
Environmental Resources Recommendations

The Paint Creek watershed and other tributaries in the Township are recognized as sensitive environmental features. These water courses and their accompanying watershed areas are indispensable and fragile resources that provide public benefits including maintenance of surface and groundwater quality, fish and wildlife habitat, stormwater run-off control, and aesthetic resources. It is inappropriate to consider these fragile resource areas for high or suburban density development. Smaller lots within these areas can degrade natural resources. Clear-cutting, dredging, filling, and other activities associated with higher density development can be harmful to natural systems. It is therefore recommended that areas within close proximity of streams, lakes, and watercourses and without public water and sanitary sewers be reserved for low density development.

Natural features play a vital role in the health of Township residents and the natural systems of the Township. Overall density and lot size should be closely related to natural features. In general, the Township may consider larger lots for environmentally sensitive areas and smaller or moderate size lots in areas more suitable for denser development. It is recognized that large lots are not always a guarantee of environmental preservation.

1. Large lots consume more land and may diminish local control of wetlands, woodlands, or other environmental features. In general, however, large lot developments have the potential to create fewer environmental impacts.
2. Small lots or cluster residential developments may be sensitively planned to preserve natural features and may be more appropriate than some large lot developments.
3. The enforcement of the Township Wetlands Protection Ordinance, Stormwater Management Ordinance and Woodlands Regulations, provided they are constantly evaluated for accuracy, can help maintain the natural resources within areas planned for higher density development.
4. Orion Township should consider adopting a phragmites ordinance that addresses the control and removal of invasive phragmites from areas adjacent to inland lakes, wetlands and drainage areas.
5. Site plan review environmental assessment
Percentage in Poverty and Flood Areas

2019 ACS 5-Year Estimate

ORION TOWNSHIP

Senior Population and Flood Areas
2019 ACS 5-Year Estimate
ORION TOWNSHIP


0% Senior Population
25% Senior Population
(Flood Hazard Areas Shaded)
Resiliency and Sustainability

It is becoming critical to include concepts of resiliency and sustainability into land use plans. Though they are related, resiliency and sustainability are not the same.

- Sustainability is the well-established concept that focuses on decreasing or eliminating the detrimental future impacts of our current activity.
- Resiliency recognizes that our built environment will be subject to stresses and is the practice of designing that environment in a way that can endure those stresses. Some threats are ongoing, persistent stresses, while others are sudden shocks or single events that disrupt the day-to-day functioning of the community.

As we plan for the future, many of the challenges we will face are related either directly or indirectly to our place in larger systems, both natural and man-made. We often have little direct local control over these systems, but adapting to change and discovering our role in contributing to the health of these systems is nonetheless essential to planning for a community that can survive and thrive even in the face of the most severe challenges. Resilient communities are not only preparing for weather and climate-related shocks, but are also preparing for economic and health shocks as well. In 2020, we saw the impacts of a global pandemic on local community health, education, recreation, commerce, technology and social connectivity. These impacts touched everyone’s lives in big and small ways and may have lasting impacts in our communities.

Effects of Climate Change

A changing climate has far-reaching implications for Michigan’s agricultural and tourism economies, waterfront development, and communities with older stormwater management infrastructure. Locally, within the last decade, Oakland County has experienced multiple heavy rain events that have led to property damage and decreased mobility and must anticipate that more flooding will occur in the future, damaging property, impairing access to parts of the township, and creating financial distress for local residents and businesses

According to the United States Environmental Protection Agency, climate change is already impacting many sectors of our communities. At a minimum, increases in air temperature and precipitation, combined with other factors, have caused impacts in the Great Lakes region including:

- Increased risk of heat-stress to equipment, infrastructure, and people, especially those who work outdoors or are otherwise vulnerable.
- Increased flooding and coastal erosion.
- Reduction in water quality due to increased occurrences of toxic algae blooms.
- Changes to the usability of water infrastructure like docks and piers.
- Economic impact to industries like forestry, fishing, crop production, tourism, manufacturing, energy production, and recreation.
- Expanded commercial navigation season as ice coverage continues to decline on the Great Lakes.

As the frequency and intensity of severe weather events continues to increase, communities will experience economic disruption. For instance, while the frost-free season has nominally increased, farmers in many of Michigan’s agricultural communities have not benefited in recent years due to abnormally late frosts (such as those in mid-May, 2020) or heavy rain events, which have damaged early crops or delayed planting of late crops. Rising temperatures and more very hot days may affect the timing of summer festivals and tourism. Communities must be prepared to anticipate the local effects of regional climate trends.
Regional climate trends indicate that southeast lower Michigan is poised to see stronger and more frequent storms, in addition to higher temperatures. The figure below shows how these two measures have been trending steadily over the last 100 years. With increasing precipitation, more frequent extreme heat days and an overall rise in average temperature, communities should be planning for what this mean locally and how their most venerable populations are situated to survive.

Southeast lower Michigan Annual Precipitation (left) and Average Annual Air Temperature (right) from 1895-2016

Addressing Resiliency: Identifying Vulnerable Populations

Resilient communities anticipate likely shocks, understand trends in stressors, and prepare for potential worst-case scenarios. Understanding where a community is physically most vulnerable to specific events and understanding which members of the community are likely to be most vulnerable in each case is key to effective planning. Vulnerability assessments have been used across Michigan to identify vulnerabilities within a community and to develop tools communities can use to foster resiliency in their policy decisions. A vulnerability assessment looks at exposure to risk and sensitivity to risk.

1. **Exposure** demonstrates the land, property, and neighborhoods that are most likely to be impacted by flooding, heat, or other severe weather. Low lying land, land near bodies of water, areas with large swaths of pavement, neighborhoods with few trees, and sections with older homes all suffer from high levels of exposure.

   **Evaluating exposure to risk asks:** where is the environmental risk the greatest?

1. **Sensitivity** demonstrates the members of the population that are most likely to be impacted by severe weather. The most sensitive populations are the elderly, young children, people with medical conditions, those living in poverty (especially the homeless) and people who work outdoors. People who live alone, regardless of their economic status, are also at higher risk.

   **Evaluating sensitivity to risk asks:** who in my community is most likely to experience the adverse effects from that risk?
**Impervious Surfaces**

Because development replaces pervious ground with impervious pavement and buildings, water runs off the surface rather than permeating naturally through the ground. As stormwater drains across pavement, it picks up pollutants such as automobile fluids, fertilizers, and sediment and conveys them into a storm drain. If a storm drain is directly connected to a creek, the creek receives polluted water which, in turn, can degrade water quality and wildlife habitat. This, in turn, degrades streams and water quality unless managed in an ecologically-sound manner. Ordinance standards that limit impervious surface coverage, or regulate materials used to construct impervious surfaces, can address this at a site plan individual site level.

Portions of southeast Michigan receive their drinking water from surface water sources. Because stormwater heats up the longer it sits on hot, impervious surfaces, it can also impact aquatic organisms that depend on cool or cold-water habitats. Lastly, water volume is greater for surface stormwater; Therefore, it reaches the stream much faster. The increased volume and speed erode stream banks and impairs the stream’s ability to support aquatic vegetation and wildlife.

**Mitigating Risks**

Next to placing land into various zoning districts, site plan review is the most powerful planning and natural resource protection tool. Easily enforced, site plan review is a way for communities to ensure what is approved on a site plan is what will be built. When large projects are proposed or when small projects are proposed in or adjacent to sensitive natural resources, some communities require applicants to submit an environmental assessment, which details the impact of the proposed development on natural resources. Communities that have plans and zoning regulations based on a solid environmental inventory are able to set the threshold for future environmental assessments at a defensible level. Without such a basis, an environmental assessment may be considered arbitrary, as there is little context for the requirement. An environmental assessment can be a valuable source of information, and in some cases an important tool for ensuring that new development is designed in such a way that unavoidable environmental impacts are properly mitigated. Environmental assessment can also be viewed as an affirmative tool for helping a local government meet its responsibility for preventing pollution, impairment or destruction of the environment.

**Stormwater Management**

The Township’s existing water features play an important role in managing storm water. Several creeks and streams, which connect the township’s natural water system, meander through the Township, connecting lakes and wetlands with each other, and then conveying storm water run-off. As described in the referenced watershed management plans, the most prominent streams in the Township are Paint Creek, Clear Creek, Trout Creek and Sashabaw Creek. These creeks have flowing water throughout most of the year and are valued because of their ecological, aesthetic and recreational benefits. Implementing, updating and enforcing a stormwater management ordinance is essential to ensuring the necessary infrastructure is in place to protect the natural assets and health of the community.
Public Input

This Master Plan recognizes the importance of additional planning efforts needed to ensure the township is resilient and sustainable. Future planning should include a public outreach process in two basic parts: education and input. Education includes making community members aware of potential threats and the process of planning for them, with an emphasis on outreach to the most vulnerable members of the community. The input process should offer the opportunity for residents and other stakeholders such as municipal staff and business owners to provide input regarding sustainability and resiliency planning issues. It is important for the community to engage in outreach through multiple channels to get people involved.

An impervious surface analysis was conducted as part of the Upper Clinton and Stony/Paint Watershed Management Plans. This analysis classifies the quality of streams based on the percentage of impervious cover (IC) in their watersheds. The framework classifies streams as sensitive (0-11% IC), impacted (11-25% IC), and non-supporting (>25% IC), as detailed in Table 11.

The Stony/Paint results showed that, as of 2000, all of the streams in this watershed passing through Orion Township were classified as “sensitive,” with impervious cover at less than 11% (average 7.3% IC). However, the model estimates that this watershed will develop to the “impacted” classification (average 11.2% IC), unless low impact development techniques are used. It is estimated that these techniques could reduce impervious cover in this watershed by almost 4%, and maintain “sensitive” streams.

The Upper Clinton results show streams that are impacted to a greater level by development. The average IC score for 2000 land cover is 16.6% in the Township, placing the streams in this watershed in the “impacted” category. Future development will push these streams almost to the “non-supporting” classification with an average IC estimate of 23%. The model also estimates that low impact development techniques (such as pervious pavements, green roofs, natural feature protection, etc.) could bring IC down by 5%, which would better maintain current conditions.
Existing Land Use
Existing Land Use

2020 Land Use

Residential
Approximately 37% of the land area in Orion Township is dedicated to residential land uses, which is slightly lower than Oakland County overall ratio of just under 43%. Most the residential development is single family units, with nearly 85% of the single family lots consisting of less than one acre.

Agriculture
As of 2020, the township had one 15-acre parcel of agricultural land, located in the northwest quadrant.

Commercial and Office
Commercial and office development account for 2.7 % of the total township area (1.9% of all parcels). The commercial and office land uses are concentrated along the Lapeer, Baldwin and Brown Road corridors.

Industrial
Industrial development is primarily concentrated in the southeast portion of the township around the Brown-Giddings-W. Silverbell-Lapeer Road area.

Open Space
Recreation and Conservation area account for nearly a quarter of the land area (24.3%) in the township. This classification includes public or private-owned parks, golf courses, or areas of which the primary purpose is preservation and conservation of undeveloped natural areas.
Existing Land Use
ORION TOWNSHIP

Community Facilities
Community Facilities

Community facilities include both physical facilities located within the township as well as services provided by the township and other governmental or quasi-public entities operating in the area. Community facilities include essential facilities or services like a fire station or public utility, or may be non-essential facilities or services such as a public park or library. Both essential and non-essential community facilities play a vital role in the growth potential of the township and resident retention. A welcoming township hall, the availability of public safety services, attractive recreational and cultural facilities, and strong public school and library systems are some examples of community facilities that can help draw new people to the township and enhance the quality of life of existing residents. As part of the 2015 Master Plan, there was a specific focus on addressing areas of need related to the Township Civic Center, the Orion Center, and fire and police services. Updates on these three community facilities are provided within this section. Additionally, the safety path plan is based on creating connections between the many community facilities located within the township, and references to community facilities related to planning and transportation are provided throughout this Master Plan Update.

New Township Hall

Construction of a new Orion Township Hall began in late 2019 and is progressing towards a planned opening in the fall/winter of 2021. The new township hall site is located on the southeast corner of the intersection of Joslyn Road and Scripps Road, on township-owned land, and is just to the north of the current township hall on the east side of Joslyn Road south of Greenshield Road. The new township hall will address the space needs of Oakland County Sheriff deputies that operate out of the current township hall, providing a separate 8,000 square-foot building dedicated exclusively to policing needs. The main township hall building will be 32,000 square feet housing modern office, meeting, and public spaces for township staff, leaders, residents, and patrons. The new township hall was designed by Auger Klein Aller Architects and is being funded through municipal bonds. No taxes were raised to fund construction. Future improvements on the new township hall site include future sports fields and a trail network that includes a connection to the Polly Ann Trail which runs near the east boundary of the site.

Source: Auger Klein Aller Architects (used with permission)
Police and Fire

Police and fire services are funded under the Township’s dedicated millage rate of 3 mills. Police services are contracted through the Oakland County Sheriff’s Department and staffing and equipment have been adjusted to keep pace with land use. The Township recently opened a new fire station on Giddings Road and renovated a second existing fire station.

Orion Township Public Library
(from orionlibrary.org)

The Lake Orion Library, established by the Lake Orion Women’s Club in 1926, was first located on the second floor 37 East Flint Street in the Village of Lake Orion.

- In 1929, Orion Township residents ratified a proposition to levy taxes in support of the Lake Orion Library, renaming it the Orion Township Free Public Library.

- In 1940 it was moved to the Hemingway House on Lapeer Street in the Village of Lake Orion and grew until the floorboards sagged.

- In 1964, the first formal library was built at 845 South Lapeer Road. Opening in 1965, this building met the community’s needs for the next 23 years.

- In 1986, the Orion community passed a bond to create the new Orion Township Public Library to serve the next generation of Orion residents.

The 29,000 square foot building opened at its current location on Joslyn Road in February of 1989. Designed to serve a population of 30,000 and house a collection of 100,000 volumes with a capacity for a 200,000 items per year circulation, the new Orion Township Public Library was spacious and inviting, offering quiet study areas, comfortable seating, meeting rooms for community gatherings, and the latest titles, as well as state-of-the-art computers and other new technologies.
placeholder spread for water map

To be completed
placeholder spread for sewer map

To be completed
2019 Parks and Recreation Master Plan

The 2019 to 2023 Orion Township Parks and Recreation 5-Year Master Plan includes a complete parkland and facility inventory for the township. This inventory includes 19 township recreation sites, which include parks, nature areas, schools, and other properties. The inventory also includes Orion Oaks County Park, Bald Mountain State Recreation Area, and three public boating access sites.
Specific facilities addressed within the parkland and facility inventory include the following which are referenced within this Master Plan Update due to their importance related to planning: (from 2019 Parks and Recreation Master Plan)

1. Jesse Decker Park
2. Civic Center Park and Wildwood Amphitheatre
3. Friendship Park
4. Camp Agawam
5. Orion Center

Civic Center Park & Wildwood Amphitheatre

As the name implies, this park is situated in the Township's Civic Center. Adjacent to the (1974) Township Hall and just down the road from the Orion Center, its central location and versatile facilities make it a highly-frequented park. Its size and the variety of activities it provides makes it a popular site for social gatherings in the pavilion and sporting events on its varying types of athletic fields. The Wildwood amphitheater was built since the last Parks and Recreation Plan was completed in 2014. Located within Civic Center Park, it is home to several outdoor cultural events. In the summer, the amphitheater hosts weekly free concerts, in addition to music and film festivals and other public events. It is also available to rent for private events.

Friendship Park

Friendship Park is the Township's second largest park, behind the recently acquired Camp Agawam. Located in the northwest portion of the Township along Clarkston and Baldwin Roads, and covering about 135 acres, this is a well-used, all-purpose park. The park provides ample space for organized sports leagues, other active recreation on the play structures, and passive spaces where visitors can relax under a shaded pavilion or fish at the beautifully landscaped catch and release pond. The meeting room is one of two facilities in the park system where visitors can enjoy indoor space for events, making this a valuable year-round space. The park features a playscape designed exclusively for individuals with special needs. The swings are accessible for children in wheelchairs, and the smooth surfacing serves wide-ranging mobility needs. In addition, Friendship Park will feature Miracle Field, a fully accessible baseball field, in the near future.

Jesse Decker Park

Jesse Decker Park is a corner park located at the intersection of Squirrel and Silverbell Roads, directly across from a residential subdivision. Built in 2009, it is a little larger than a “neighborhood park,” but its short distance to a neighborhood means it likely serves a smaller population than Friendship and Civic Center Parks, even with similar facilities. In a smaller space, the park still manages to provide ample active and passive spaces. Its hilly terrain gives it a unique feature: a sledding hill. Using the park’s natural features to keep the park in use during the winter is a bonus for the neighbors and the Parks and Recreation Department.
Camp Agawam

Camp Agawam is the Township’s largest property. It is nestled along the east side of Tommy’s Lake with an access point to the water for swimming and catch-and-release fishing. It was purchased in 2014 and until then it was operated by the Boy Scouts of America, so most of its features are centered on camping and group recreation such as cabins, fire pits, pavilions, lodges, and an outdoor auditorium. The buildings and sites are scattered across the property and connected mainly by natural trails that are not accessible to cars. It is the Township’s most rustic recreational property with great potential to serve the community and the region. The site’s facilities are also available to rent for large and small events. Most of the site is left in its natural state which makes the terrain difficult to cross. However, there are two major developments that are fully accessible for all levels of mobility: the KaBoom! playground and the walking trail that leads to the fishing dock.

Orion Center

The Orion Center was built in 2011 on Joslyn Road in the heart of Orion Township. On this 11-acre property, the Parks and Recreation Department is housed and much of the recreation and 50 and better programming takes place. It serves as a convenient meeting point to initiate off-site excursions. From this property, there is access to the Polly Ann Trail. Both indoor and outdoor facilities are available for rent. Inside, many rooms feature flat screen TVs, tables and chairs, good lighting, and serve a particular function for classes and programming. The back patio has picnic tables that are covered by umbrellas as well as a gazebo. The building was built with accessibility in mind. Getting into the building can be done with ease, and once inside there is an elevator and handicap accessible restrooms. The Senior Services Division provides a network, events, classes, and resources geared to help both residents and non-residents aged 50 and over. Membership for 50+ adults is free at the Orion Center and hosts a range of social and educational clubs and programming for its members.