

FREMONT COUNTY
SMALL WASTEWATER REGULATIONS

Prepared by
Fremont County Planning Department

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ADOPTED
Fremont County Board of County Commissioners

November 2020

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Julie A Freese, Fremont County Clerk



**REGULATIONS FOR DESIGN, INSTALLATION AND MODIFICATION OF SMALL
WASTEWATER FACILITIES AND OPERATION, MAINTENANCE AND FAILURE
OF CURRENT FACILITIES**

**BOARD OF COUNTY COMMISSIONERS
FREMONT COUNTY, WYOMING**

WHEREAS: the Administrator of the Water Quality Division, with the approval of the Director of the Wyoming Department of Environmental Quality, shall delegate the authority to enforce and administer the provisions of W.S. 35-11-301 (a)(iii) and (v) to local governmental agencies, and;

WHEREAS: the Board of County Commissioners of Fremont County, Wyoming has entered into a Delegation Agreement with the Wyoming Department of Environmental Quality, and;

WHEREAS: under this Agreement, the enforcement and administration on permitting and inspection of small wastewater facilities is delegated to Fremont County and Fremont County has complied with the requirements of W.S. 35-11-304, applicable Wyoming Water Quality Rules and Regulations, and the terms of the Wyoming Administrative Procedure Act,

NOW THEREFORE BE IT RESOLVED:

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CHAPTER I

TITLE, AUTHORITY, PURPOSE AND DEFINITIONS

1. Title

- A. This resolution shall be known as the "Fremont County Small Wastewater Regulations."

2. Authority

- A. This regulation is promulgated pursuant to the Wyoming Environmental Quality Act, W.S. § 35-11-101 through 35-11-1904. Specifically, W.S. § 35-11-301 requires persons constructing, installing, modifying or operating any sewerage system, treatment works, or disposal system to obtain a permit issued pursuant to the provisions of that act.

W.S. § 35-11-304 (a) goes on to state "To the extent requested by a municipality, water and sewer district or county, the administrator of the water quality division, with the approval of the director, shall delegate to municipalities, water and sewer districts or counties which apply the authority to enforce and administer within their boundaries the provisions of W.S. 35-11-301(a)(iii) and (v), including the authority to develop necessary rules, regulations, standards and permit systems and to review and approve construction plans, conduct inspections and issue permits." Fremont County has been delegated this regulatory authority.

3. Purpose

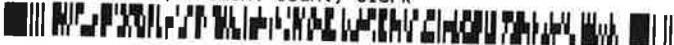
- A. The purpose of these regulations are to prevent, reduce, and eliminate pollution, enhance the waters of the State of Wyoming and to protect the health, safety, and welfare of the environment and its inhabitants by ensuring that the design, construction and maintenance of small wastewater systems meets the purpose of the Wyoming Environmental Quality Act.

4. Applicability

- A. These regulations shall apply to all small wastewater systems, greywater systems and privies as defined in Chapter I Section 6 of these regulations within Fremont County. No small wastewater system will be reviewed/approved for those areas where an incorporated city has a municipal sewer line within the areas defined in Appendix B, unless authorized by the city.
- B. These regulations shall apply retroactively to prior violations which were not discovered until after the adoption of these revised regulations and shall further apply to the maintenance of systems installed prior to the adoption of these regulations.
- C. The following situations will require the application package to be sealed, dated, and signed by a professional engineer (PE): non-domestic wastewater from commercial and industrial

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facilities, high strength wastewater, or standard soil adsorption systems with a soil percolation rate that is either less than 5 minutes per inch (mpi) or more than 60 minutes per inch (mpi).

5. Intent

- A. The design and construction standards included in these regulations are directed toward conventional small wastewater systems. These standards impose limiting values of design for which a construction, installation, or modification permit application and plans and specifications can be evaluated by the Fremont County Planning Department.
- B. The maintenance and failure sections of these regulations are directed toward limiting the potential degradation of state waters and the protection of public health and safety.
- C. The terms “shall” and “must” are used when a practice is sufficiently standardized to permit specific delineation of requirements or when safeguarding public health or protection of water quality justifies such definite action.

6. Definitions

The following definitions supplement those definitions contained in Section W.S. § 35-11-103 of the Wyoming Environmental Quality Act.

Absorption surface – The interface where treated effluent infiltrates into native or fill soil.

Alternative Treatment and Disposal System – A system for treatment and disposal of domestic wastewater or wastes which consists of a building sewer, a septic tank, or other sewage treatment or storage unit, and a disposal facility or method which is not a conventional system, but not including a surface discharge to waters of the state.

At-Grade system – An alternative type of wastewater system where the bottom of the leachfield is placed at the elevation of the existing site grade and the top of the distribution pipe is above the elevation of the existing site grade, and the leachfield is contained within fill that extends above that grade.

Authorization to Construct – A document produced and signed by the Fremont County Small Wastewater Specialist that describes the type and size of system that is authorized to be installed. Once the system described by the Authorization to Construct is installed, inspected and approved by the Fremont County Small Wastewater Specialist, a Small Wastewater System Permit is issued.

Bed – A soil treatment and dispersal system, where the width of the system is greater than three (3) feet.

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Bedrock – Geological layers, of which greater than fifty percent (50%) by volume consist of unweathered in-place consolidated rock or rock fragments. Bedrock also means weathered in-place rock that cannot be hand augered or penetrated with a knife blade.

Bedroom – Any room that is or may be used for sleeping.

Black water – Wastewater containing fecal matter and/or urine.

Building sewer – The pipe that carries wastewater from the building.

Cesspool – A covered hole or pit for retaining the sediment of a drain and for receiving the sewage from a home, building or other facility. Cesspools are prohibited by these regulations.

Chamber – A prefabricated, manufactured domed structure that has an open bottom that is used in lieu of perforated distribution pipe and gravel media in the construction of the leachfield.

Cistern – A water storage tank, used for potable water when an individual well, Central Water System or Community Water System are unavailable.

Commercial septic system – Septic systems that serve a business or profit-making venture as opposed to a system designed for private use.

Conventional absorption system – An underground wastewater system that collects all household sewage in a septic tank. The sewage separates into a solid (sludge) that settles to the bottom, and a liquid effluent that then flows into a leachfield for final treatment by the soil or media.

Curtain drain --A trench containing a perforated pipe surrounded by gravel that intercepts and redirects groundwater away from a septic system.

Delegated small wastewater program – A local governmental entity, delegated by the Administrator, with the authority to administer the provisions of W.S. § 35-11-301(a) (iii) for small wastewater systems pursuant to the provisions of W.S. § 35-11-304.

Distribution box – A watertight structure which receives liquid effluent from a septic tank and distributes it in equal portions to distribution pipes leading to the leachfield.

Domestic wastewater – A combination of the liquid or water-carried wastes from residences, business buildings, institutions, and other establishments arising from normal living activities.

Domestic septage – Liquid or solid material removed from a waste treatment vessel that has received only wastes from residences, business buildings, institutions, and other establishments arising from normal living activities.

Dosing system – The system of tanks, pumps or siphons, and piping located between the septic tank and leachfield which is intended to discharge effluent on an intermittent basis to the leachfield in a short period of time. All Dosing Systems shall be engineered and stamped by a Wyoming Licensed Professional Engineer.

Effluent – A liquid flowing out of a septic tank, other treatment vessel or system.

Effluent filter – A removable, cleanable device inserted into the outlet piping of a septic tank or other treatment vessel designed to trap solids that would otherwise be transported to the leachfield or other downstream treatment components.

Evapotranspiration – The combined loss of water from soil by evaporation from the soil or water surface and by transpiration from plants.

Flow divider tee – An effluent distribution device that divides the effluent flow from the septic tank into two (2) equal streams to insure efficient use of the leachfield.

Free-board – The vertical distance between normal maximum operating level at a reservoir and the top of the dam. Adequate free-board is employed as a safety interval and provides protection against overtopping by wave action, debris, etc.

Greywater – Untreated wastewater which has not been contaminated by toilet discharge; that is unaffected by infectious, contaminated or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing or operating wastes. Greywater includes, but is not limited to, wastewater from bathtubs, showers, wash basins, clothes washing machines (unless soiled diapers are serviced), kitchen sinks and laundry tubs.

Groundwater – Subsurface water that fills available openings in rock or soil materials such that they may be considered water saturated under hydrostatic pressure.

Groundwater interceptor – Any type of device or means that gathers and redirects groundwater away from an area such as septic systems, building foundations or retaining walls.

GROUNDWATER TABLE

- **Perched** – Unconfined ground water separated from an underlying body of ground water by an unsaturated zone and is underlain by a restrictive strata or impervious layer.
- **Seasonal** – The highest elevation reached by the groundwater during the wet season of the year (usually spring or early summer). Irrigation influences may affect the duration and depth of the seasonal high groundwater table.

Holding tank – A watertight receptacle designed to receive and store wastewater.

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Leachfield – That portion of a septic system that receives and distributes pre-treated effluent. The effluent is further treated and filtered further through soil or media.

Mound system - An onsite wastewater system where any part of the absorption surface is above the elevation of the existing site grade, and the absorption surface is contained in a mounded fill body above the grade.

Mulch basin – An excavated area that has been refilled with a highly permeable media, organic and inorganic materials intended to distribute greywater to irrigate vegetation.

Outhouse – See Privy.

Percolation rate – The time expressed in minutes per inch required for water to seep into saturated soil at a constant rate.

Percolation test – The method used to measure the percolation rate of water into soil as described in Appendix A.

Permeability – The rate at which a soil transmits water when saturated.

PERMIT

- **Permit** – A generated document indicating formal approval by Fremont County of the design and installation of a Small Wastewater System, Greywater System or Privy; or the surface application of septage, following the Fremont County Small Wastewater Regulations.
- **As-Built Permit** – An after the fact document issued on a small wastewater system that was otherwise illegally installed where no Authorization to Construct was requested prior to installation. The homeowner must show they did not know a permit was required and can show evidence of the design and construction of the system including: receipts, design details and photographs within one year of installation.

Pressure distribution – A network of distribution pipes in which effluent is forced through orifices under pressure. All Pressure Distribution Systems shall be engineered and stamped by a Wyoming Licensed Professional Engineer.

Privy – A sealed, water tight vault covered by a vented, insect tight structure with a self-closing door into which only urine and fecal material are discharged.

Pump tank or pump chamber – A tank placed between the septic tank and the leachfield designed to facilitate pumping clear effluent to an elevated leachfield.

Restrictive layer – A nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil



or that restrict roots or otherwise provide unfavorable root conditions. Examples are bedrock, cemented layers, dense layers, and frozen layers.

Septage – Liquid or solid material removed from a waste treatment vessel that has received wastes from residences, business buildings, institutions, and other establishments.

Septic System Failure – A system that no longer treats or distributes septage. This may result in: surfacing of effluent, contamination of surface water or contamination of drinking water.

Septic tank – Typically, a two (2) compartment, liquid-tight receptacle which receives raw sewage from a building sewer, and has been designed and constructed to retain the solids and allow the clear liquids to discharge through a secondary system of piping into a leachfield.

Septic Tank System Failure – When a tank lid no longer fits the tank opening, the lid system has failed. When the tank inlet or outlet baffle have eroded away, the septic tank has failed. When the tank lid has eroded such that its structural integrity is compromised to the point of being unsafe, the septic tank has failed.

Serial distribution – A distribution method in which effluent passes through one section of the leachfield before entering the succeeding leachfield area(s) through a distribution box or relief line creating a single uninterrupted flow path.

Small wastewater system – Any sewerage system, disposal system, or treatment works having simple hydrologic and engineering needs which is intended for wastes originating from a single residential unit serving no more than four families or which distributes 2,000 gallons or less of domestic sewage per day. The components of a Small Wastewater System are:

- Plumbing from the house to the septic tank including cleanouts;
- The septic tank;
- Plumbing from the septic tank to the treatment field including the distribution system;
- The treatment field.

Soil exploration pit – An open pit dug to permit examination of the soil to evaluate its suitability for absorption systems including but not limited to soil type, depth to bedrock or impermeable layer, and depth to groundwater including perched or seasonally high.

Special Flood Hazard Area (SFHA) – the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.



Temporary, Seasonal or Intermittent – A period of time not to exceed 90 total days per year.

Trench – An absorption surface with a width of three (3) feet or less.

Vault – A sealed container located under a privy designed to be pumped occasionally.

100 year floodplain – A tract of land throughout a watershed that has a one in one hundred chance or occurrence of flooding in any given year or a return period of once every 100 years, as determined by the United States Geological Survey (USGS), Federal Emergency Management Agency (FEMA) or a local planning and development authority.

7. Prohibitions

A. No person shall, except when authorized pursuant to these regulations:

- I. Construct, install, or modify any small wastewater system, greywater system or privy;
- II. Construct, install, or modify a small wastewater system, greywater system or privy in non-compliance with the terms and conditions of the Fremont County Small Wastewater Regulations;
- III. Construct, install, or modify a small wastewater system, greywater system or privy with a permit that has expired or has been suspended or revoked;
- IV. Discharge wastes into any small wastewater system, greywater system or privy which is inconsistent with the type and/or quantity of wastes for which the facility is designed.
- V. Discharge wastes to surface waters or ground surface. Effluent from any onsite wastewater system shall not be discharged to surface waters or upon the surface of the ground. Sewage shall not be discharged into any abandoned or unused well, or into any crevice, sinkhole, or similar opening, either natural or artificial.

B. No small wastewater system, greywater system or privy shall be constructed, installed or modified within an area pf Special Flood Hazard without first obtaining a Floodplain Development Permit.

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CHAPTER II

ADMINISTRATION

1. Administration

- A. The regulations stated herein are minimum standards. Construction, installation, or modification of a small wastewater system, greywater system or privy or the application of septage to the land shall be allowed only in accordance with the terms and conditions of permits issued pursuant to the provisions of these regulations.
- B. No construction, installation, or modification of a small wastewater system, greywater system or privy shall be allowed unless an Authorization to Construct has been obtained from the Fremont County Planning Department.
- C. The issuance of an Authorization to Construct does not relieve the permittee of its responsibility to properly plan, design, construct, operate, and maintain the facility described in the application and permit conditions.
- D. Septic systems installed prior to the advent of septic system standards in 1976 are not assumed to be in compliance with current standards. Any replacement or modification to pre-regulatory systems must meet current design standards and must be permitted according to these regulations.
- E. Any system or component of a system that has failed must be replaced following the procedures outlined in these regulations.

2. Application Requirements

- A. Any person who proposes to construct, install, or modify a small wastewater system, greywater system or privy required to be permitted under these regulations shall submit a written application on forms provided by the Fremont County Planning Department along with the appropriate fee for the type of system to be installed (Replacement, New, Modified, Non-conventional or Commercial.).
- B. Each application must be submitted with all supporting data necessary for review prior to the start of any work.
- C. All plans and specifications must conform to common engineering practices:
 - I. Plans for small wastewater systems, greywater systems or privies shall contain the following:

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- a) A title showing the name of the property owner and the location of the project; a north arrow and drawing scale; and the name and seal or signature of the designing engineer (except on the plans for a single residential unit designed by the owner).
 - b) A site plan showing topography of the site, boundaries of the project and property, nearby wells and waterlines, waterways, buildings, septic tank and leachfield including all dimensions and isolation distances.
 - c) Location of percolation test holes and soil test pit(s).
 - d) Percolation test data.
- II. Specifications for small wastewater systems shall include the following:
- a) All plans and specifications must meet or exceed minimum design standards and these regulations.
 - b) The identification of the type, size, and strength of construction materials.
 - c) The type, size, strength, operating characteristics, rating or requirements, and installation procedures for all mechanical and electrical equipment.
- D. All the plans and specifications must conform to the minimum design standards identified in Chapter III.
- E. Land application of domestic septage in remote areas that meets the conditions found in Appendix C may be issued a Surface Application of Septage Permit by Fremont County Planning Department.

3. Application Process

All permit applications received will be processed in the following manner:

- A. The Fremont County Planning Department shall review each application and make the proper determination within 15 days from the date the application is received.
- B. Processing of the application with respect to recommendations or required changes will be done in accordance with the provisions of applicable statutes, rules, and regulations. All applications will be either:
 - I. Accepted as written;
 - a) A written Authorization to Construct will be issued.
 - II. Accepted with modification(s);

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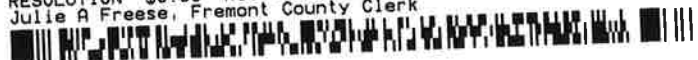
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- a) During review of the submitted application or while construction is underway, Fremont County Planning Department may require modifications be made to the application and/or the construction of the proposed project due to:
 - i. existing, unknown, or changing site conditions which would prevent construction and resultant operation from complying with these regulations; or
 - ii. receipt of additional information; or
 - iii. incomplete application or accuracy of submitted information; or
 - iv. information not in compliance with minimum standards; or
 - v. any other reason necessary to effectuate applicable statutes, standards, or regulations.
- b) The Fremont County Planning Department shall promptly notify the applicant of its decision on the application. If the conditions of the Authorization to Construct are different from the proposed application submitted by the applicant for review, the notification shall include reasons for the changes made.

III. Denied:

- a) The Fremont County Planning Department may deny a permit for any of the following reasons:
 - i. The application is incomplete or does not meet applicable minimum design and construction standards as specified in these regulations.
 - ii. The application provides false or fraudulent information.
 - iii. The project, if constructed, will cause violation of applicable state surface or groundwater standards.
 - iv. The project does not comply with applicable state and local water quality management plans as specified in Chapter III of these regulations.
 - v. Within the Master Plan Area of any incorporated town in Fremont County, no new small wastewater system shall be approved within that city's mandated connection distance as detailed in Appendix B.
 - vi. Any other reason which would have an adverse effect upon the health and safety of the public or which appears to attempt to violate the spirit or substance of the Regulations.
- b) If the Fremont County Planning Department denies issuance of an Authorization to Construct, the applicant shall be notified in writing of the reasons for the denial.



IV. No Permit Required;

- a) If upon review of an application, the Fremont County Planning Department determines that a permit is not required, the Fremont County Planning Department shall notify the applicant of this determination. Such notification shall constitute final action on the application.
- C. Applications for a modification of an existing permitted facility to increase the capacity to treat, hold, or dispose of wastes will require an Authorization to Construct and may be approved requiring only the modification needed to meet the minimum design standards. Facilities not in compliance with these regulations will require additional modifications to other portions of the facility to bring the facility into compliance with these regulations.
- D. Following approval of an application, an Authorization to Construct will be issued and installation may begin. Verbal authorization can be exercised at the discretion of the Small Wastewater Specialist. Following verbal authorization, a written authorization will be issued by Fremont County Planning Department.
- E. The duration of an Authorization to Construct shall not exceed one (1) year from the date of receipt.

4. Construction and Inspection Process

Following the issuance of an Authorization to Construct, and prior to issuance of a Permit, the Permittee and Fremont County Planning shall be responsible for the following:

- A. The Permittee shall:
 - I. Conduct all construction, installation, or modification of any facility consistent with the terms and conditions of the Authorization to Construct. Unauthorized changes, deviations, or modifications will be a violation. A new application or amended application must be filed with the Fremont County Planning Department to obtain modification to an Authorization to Construct. No modification shall be implemented until a new or modified Authorization to Construct has been issued or a waiver given pursuant to Chapter II (4) A II below.
 - II. Requests for authorization to utilize materials and/or procedures different from those specified in the terms of the issued Authorization to Construct shall be directed to the Fremont County Planning Department. A waiver may be granted if materials and/or procedures specified in the permit cannot be obtained or accomplished and alternative materials and procedures meet minimum standards. In order to prevent undue delay during construction, the Fremont County Planning Department may grant a waiver orally, upon oral request, provided that this oral request is followed by a written request within five (5) days. Any changes shall be noted on the permit and initialed by the Fremont County Planning Department staff.

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- III. Conduct the operation in accordance with statements, representations, and procedures presented in the complete application and supporting documents, as accepted and authorized by the Fremont County Planning Department.
- IV. Notify the Fremont County Planning Department at least 24 hours prior to backfilling of a system. No backfilling is allowed prior to Fremont County Planning Department's final inspection and the installation is verified in compliance with these regulations.

B. The Fremont County Small Wastewater Specialist shall:

- I. Discuss with the permittee proposed home site preferences, soil conditions and local conditions.
- II. Discuss requirements for isolation distances between the home, well, cistern, surface water, water lines and property boundaries while providing assistance with planning and sizing of the septic system.
- III. Inspect the installation of all aspects of the small wastewater system including:

a) New Conventional Septic Systems

- i. Inspect the installation of the septic tank and distribution box/flow divider T's for correct placement and levelness;
- ii. Inspect the excavation of the bed or trenches for levelness and correct depth to all proper plumbing from the distribution box/flow divider T;
- iii. Inspect the placement and number of chambers for compliance with the Authorization to Construct requirements;
- iv. For pipe and stone systems inspect the placement and levelness of the pipe.

b) Replacement or Modified Septic Systems and Greywater Systems

- i. Inspect the excavation of the bed or trenches for levelness and correct depth to all proper plumbing from the distribution box/flow divider T;
- ii. Inspect the placement and number of chambers for compliance with the Authorization to Construct requirements;
- iii. For pipe and stone systems inspect the placement and levelness of the pipe.

c) Non-Discharging Evaporative Ponds

- i. Inspect the excavation for correct depth, dimensions and proper slope;

- ii. Inspect the fence installation to insure compliance with Chapter III (11) B. XV. of these regulations.
- d) Passive Aerobic Septic Systems
 - i. Inspect the amount and type of media material used in accordance with design and Authorization to Construct requirements;
 - ii. Inspect the high and low vents.
- e) Non-Conventional Septic Systems
 - i. Review all plans, specification and requirements submitted by a Wyoming Licensed Engineer or Wyoming Department of Environmental Quality for content, detail, completeness and accuracy;
 - ii. Inspect and verify that all submitted and approved plans are implemented as designed by the Engineer.
- f) Privies
 - i. Inspect the vault to ensure it meets the minimum requirements for volume and depth;
 - ii. Inspect the construction to ensure the vault is sealed and watertight;
 - iii. Inspect the door and vents.

5. Inspection Procedures

The permittee or contractor will contact Fremont County Planning Department for each and every inspection.

A. The following systems must be inspected and permitted:

- I. Conventional: new, replacement and modified systems including gravelless chambers or pipe and stone;
- II. Non-conventional systems including: mounded systems, pressure dose systems, small wastewater ponds and passive aerobic systems;
- III. Privies;
- IV. Greywater Systems;
- V. As-built systems submitted after installation.

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B. All systems must be inspected for the following (Greywater Systems and Privies are only inspected for those items that apply):

I. Isolation distances:

- a) Measure house to tank;
- b) Measure tank to field;
- c) Measure well or cistern to tank;
- d) Measure well or cistern to field;
- e) Measure surface water to tank and field;
- f) Measure water lines to tank and field;
- g) Measure property line to tank and field.

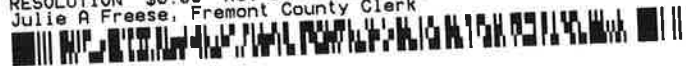
II. Site information:

- a) Verify soil type;
- b) Measure high groundwater to bottom of the field;
- c) Measure impermeable bedrock/soil to bottom of field;
- d) Measure tank and field distance to 15% slope.

III. Tank specifications:

- a) Inspect material;
- b) Verify capacity;
- c) Verify levelness;
- d) Verify T's or baffles in place;
- e) Inspect tank clean-out risers;
- f) Inspect line clean-outs in place;
- g) Inspect four-inch Schedule 40 PVC in and out of tank;

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- h) Inspect field distribution system;
- i) Verify levelness of distribution system.

IV. Trench specifications.

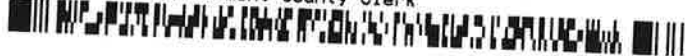
- a) Measure line length;
- b) Measure line width;
- c) Measure distance between lines;
- d) Measure depth of trenches;
- e) Measure depth of pipe or chamber units;
- f) Verify depth of gravel under pipe;
- g) Verify barrier or cover;
- h) Verify number of chamber units;
- i) Verify model number;
- j) Verify splash plate installed;
- k) Calculate total leachfield surface area.

V. Bed specifications:

- a) Measure bed/gravel area;
- b) Measure depth of bed;
- c) Measure depth of pipe or chamber units;
- d) Verify depth of gravel under pipe;
- e) Verify barrier or cover;
- f) Verify number of chamber units;
- g) Verify model number;
- h) Calculate total leachfield surface area.

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C. Pumping systems associated with Alternative Treatment and Disposal System(s) will additionally be inspected for:

- I. Verify pump tank type;
- II. Verify pump tank capacity;
- III. Inspect pump tank clean-out riser;
- IV. Inspect floats installation;
- V. Verify alarm installed and tested;
- VI. Verify weep hole installed;
- VII. Inspect quick disconnect;
- VIII. Verify means of pump retrieval;
- IX. Verify effluent filter;
- X. Verify concrete block;
- XI. Verify NEMA 4 electrical components/connections;
- XII. Verify venting of tank;
- XIII. Verify pump size and capacity

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D. Non-conventional septic systems will additionally ~~also~~ be inspected for:

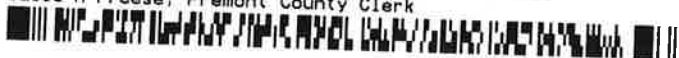
- I. Inspect the depth of fill between ground surface and gravel;
- II. Measure base of mound including length and width;
- III. Verify the proper slope both lengthwise and width;
- IV. Verify lateral piping construction;
- V. Verify design and proper installation per Engineer.

E. Small non-discharging evaporative ponds will also be inspected and verified for:

- I. Measure pond dimensions including bottom area, working level, top level and overall depth;
- II. Verify the proper slope of the side walls and partition dike;

- III. Inspect fencing requirements including overall height, access gate and signage;
 - IV. Inspect partition dike construction and lining of the notched weir;
 - V. Verify the amount of free board provided.
- F. In addition to measuring isolation distances, passive aerobic septic systems will be inspected and verified for:
- I. Verify tank type;
 - II. Verify tank capacity;
 - III. Inspect floats installation;
 - IV. Verify ball valve installation;
 - V. Verify alarm installed and test;
 - VI. Verify weep hole installed;
 - VII. Inspect quick disconnect;
 - VIII. Verify means of pump retrieval;
 - IX. Verify effluent filter;
 - X. Verify concrete block;
 - XI. Verify NEMA 4 electrical components/connections;
 - XII. Verify venting of tank;
 - XIII. Verify pump size and capacity;
 - XIV. Inspect materials used;
 - XV. Review sand sieve analysis;
 - XVI. Inspect placement, construction, screening and height requirements of high and low vents;
 - XVII. Verify design and proper installation per Engineer.

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6. As-Built Systems

In rare instances where a septic system has been illegally installed without receiving an Authorization to Construct and a Permit in compliance with the Fremont County Small Wastewater Regulations, the Planning Department may, at its discretion, issue an As-Built Permit as long as less than one (1) year has passed since the time of installation.

- A. In these rare cases, the Fremont County Planning Department will require the property owner to provide:
 - I. Completed Small Wastewater Application including percolation test data.
 - II. Photos of the installation, if available.
 - III. Purchase receipts to verify components that were used and their quantity.
 - IV. Completed inspection (As-Built) checklist.
 - V. Appropriate application fee.
- B. All submitted information will be reviewed to determine if the system is in compliance with current standards. An on-site investigation/inspection must follow to determine if the submitted information corresponds with what is actually seen in the field. If the field observations verify the submitted information, an As-Built permit shall be issued.
- C. If the as-built information provided, or field inspection demonstrates that the system is deficient, all deficiencies must be corrected within thirty (30) days after the receipt of the submitted information as outlined above in Chapter III Section 6 A above.
- D. If the owner refuses to comply with the department's request for information, they are subject to Notices of Non-Compliance and Violation as outlined in Chapter IV Section 2D of the Fremont County Small Wastewater Regulations.
- E. The application fee for an As-Built permit can be found in the latest version of the Fremont County Planning and Rural Addressing Fee Schedule.

7. Suspension or Revocation of an Authorization to Construct

- A. The Fremont County Planning Department may suspend or revoke an Authorization to Construct before construction, installation, or modification of a facility is completed due to:
 - I. Non-compliance with the terms of the Authorization to Construct;
 - II. Unapproved modifications in design or construction;
 - III. False or fraudulent information submitted in the application;

- IV. Changing site conditions which would result in violations of applicable regulations;
 - V. Non-compliance with any requirements of these regulations;
 - VI. Any other reason necessary to effectuate applicable statutes, standards, or regulations.
- B. Before an Authorization to Construct is suspended or revoked, the permittee shall be given an opportunity to demonstrate compliance with all lawful requirements for the retention of the Authorization to Construct.
 - C. The Permittee will be notified by letter stating the specific reason(s) for suspension or revocation.
 - D. The suspension or revocation shall become final thirty (30) days from the date of such notice unless within that time the permittee requests an appeal as described in Chapter II Section 8 below.
 - E. After corrective action is taken and successful inspection, the permit will be signed and issued.

8. Appeals

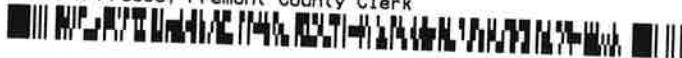
- A. If the applicant is dissatisfied with the Authorization to Construct conditions or denial of any Authorization to Construct issued by the Fremont County Planning Department, they may request a review of the proposed conditions or denial with the Wyoming Department of Environmental Quality (WDEQ).
- B. If the applicant is dissatisfied with the results of the review by the WDEQ, the applicant may request an informal hearing before the County Commissioners (This hearing does not have to conform to the contested cause procedures set forth in the Wyoming Administrative Procedures Act). The written request shall be submitted within thirty (30) days of the action appealed, and shall state the specific relief which the applicant seeks. Within thirty (30) days of receipt of such request, the County Commissioners shall hold a hearing to determine the proper application of these regulations. At the hearing, the County Commissioners shall consider not only the Applicant's appeal, but also the written or verbal comments of the Planning Department, the Wyoming Department of Environmental Quality and any other Agency or person and note the hearing decision in its record. This decision shall be binding upon all agencies and administrative personnel of Fremont County.
- C. Any Applicant aggrieved by the action of the County Commissioners in their administration of the provisions of this chapter may seek judicial review in accordance with the Wyoming Administrative Procedures Act and the Wyoming Rules of Civil Procedure.

9. Fees

- A. All fees necessary to acquire a Small Wastewater Permit as described in these Regulations can be found in the latest version of the Fremont County Planning and Rural Addressing Fee Schedule.

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CHAPTER III

SYSTEM SPECIFIC INFORMATION

All small wastewater systems shall, at a minimum, be designed utilizing the provisions of the most current version of the Chapter 25 of the Wyoming Waster Quality Rules and Regulations.

1. Design Flows.

- A. The volume of wastewater shall be determined by one of the following:
- I. Tables 1 and 2 provided in this section.
 - II. Metered water supply data from the facility.
 - III. Metered water supply data from another facility where similar water demands have been demonstrated.

TABLE 1
Residential Small Wastewater Flow Rates (Including Mobile Homes)

Number of Bedrooms	Flow Rate gpd (gallons per day)
1 Bedroom	150
2 Bedroom	280
3 Bedroom	390
4 Bedroom	470
5 Bedroom	550
6 Bedroom	630

The design flow shall be increased by eighty (80) gallons per day for each additional bedroom over six (6).

Unfinished basements are to be considered at no less than two (2) additional bedrooms when determining small wastewater sewage flow.

To allow for running taps during freezing conditions, an additional 50 gallons per day must be added to the small wastewater sewage flow for mobile homes.

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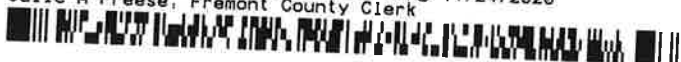


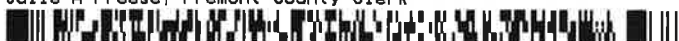
TABLE 2**Non-Residential Wastewater Design Flow Rates**

Facility	Unit	Flow (gal/unit/day)
Airports	Person	4
Apartment	Bedroom	120
Automobile Service Station	Vehicle served	10
Bars	Seat	20
Bathhouses and swimming pools	Person	10
Campgrounds (w/toilets only)	Person	25
Campgrounds (w/shower facility)	Person	45
Church	Person	4
Country Club	Member	25
Day School, Office Building, Retail Store, Warehouse (no showers)	Person	15
Hospital	Bed	250
Industrial Building (sanitary waste only)	Employee	20
Laundry (self-service)	Machine	450
Mobile Home	Bedroom	See table 1
Motel, Hotel, Resort	Bedroom	140
Recreational Vehicle	Each	100
Rest Home, Care Facility, Boarding School	Bed	100
Restaurant	Meal	10
Restaurant (kitchen waste only)	Meal	6
Theater	Seat	3

Values shown in the above table are the typical flow rates from Wastewater Engineering Treatment and Reuse, Metcalf and Eddy, 2003.

2. Systems Not Specifically Covered by This Rule.

- A. This section is provided to encourage new technology and equipment and provide a process for evaluating and permitting designs that deviate from this rule. The proposed construction of facilities and processes not in compliance with this rule may be permitted provided that the facility, when constructed and operated, meets the objective of these rules.
 - I. Each application for an Authorization to Construct shall include an engineering design report, detailed construction plans, and technical specifications for all piping, tanks, and equipment. All of the documents shall have a suitable title showing the owner's name and the Wyoming registration number, seal, and signature of the engineer.
 - II. Each application for an Authorization to Construct will be evaluated on a case-by-case basis using the best available technology. The application shall include at least one of the following:



- a) Data obtained from a full scale, comparable installation that demonstrates the acceptability of the design.
- b) Data obtained from a pilot plant operated under the design condition for a sufficient length of time to demonstrate the acceptability of the design.
- c) Data obtained from the theoretical evaluation of the design that demonstrates a reasonable probability the facility will meet the design objectives.
- d) An evaluation of the flexibility of making corrective changes to the constructed facility in the event it does not function as planned.

3. Site Suitability.

- A. Small wastewater systems must be located where the surface drainage is sufficient to allow proper operation of the small wastewater system. Avoid depressions and bases of slopes and areas in the path of runoff from roofs, patios, driveways, or other paved areas unless surface drainage is provided. Small wastewater systems shall not be located beneath buildings, parking lots, roadways, driveways, irrigated landscaping, or compacted areas.
- B. The site must include area for both the proposed soil absorption system and a future replacement soil absorption system. Both the proposed and replacement soil absorption systems shall be sized to receive one-hundred (100%) percent of the wastewater flow. If a trench system is used, the replacement soil absorption system may be located between the trenches of the proposed soil absorption system if there is at least nine (9) feet of spacing between trench sidewalls.
- C. For standard soil absorption systems, effective suitable soil depth shall extend at least four (4) feet below the bottom of the soil absorption system to any restrictive layer, fractured rock, or highly permeable material.
- D. The depth to high groundwater shall be at least four (4) feet below the bottom of the absorption surface for all treatment systems except pressure distribution. For pressure distribution systems, the depth to high groundwater shall be at least three (3) feet below the bottom of the absorption surface if the percolation rate of the soil is five (5) minutes per inch or greater (5-60 mpi).
- E. Slope
 - I. Table 3 shows the maximum permissible slopes of the site on which an absorption system may be constructed.



TABLE 3
Slope and Percolation Rates for Absorption Systems

Percolation Rate (minutes/inch)	Maximum Slope
5	25%
6-45	20%
46-60	15%

Flatter slopes may be required where the effluent surfaces downslope.

- I. Serial distribution, with the use of drop boxes or approved fittings, is the preferred installation method for sloping terrain. The bottom of individual trenches shall be level and the trenches shall be constructed to follow the contours of the land.
- II. The placement of multiple trenches, with each subsequent trench down slope of the previous trench shall be avoided when the addition of effluent to the soil absorption system trenches may lead to either an unstable slope or seepage down slope.
- III. All absorption surfaces must be located at least 15 horizontal feet from the top of any break in slope that exceeds the maximum slope allowed.

F. Soil Exploration Pit and Percolation Tests

- I. A soil exploration test pit and percolation test(s) are required prior to issuance of any Authorization to Construct.
- II. A minimum of one soil exploration pit within the proposed soil absorption system location shall be excavated to a minimum depth of four (4) feet below the bottom of the proposed soil absorption system to evaluate the subsurface conditions.
- III. The percolation test shall be performed in accordance with Appendix A of these regulations. An evaluation of the soil texture, in the proposed soil absorption system location, by a person experienced in soils classification, may be used as an additional tool to confirm the percolation rate.

G. Minimum horizontal setback distances (in feet) are as follows:

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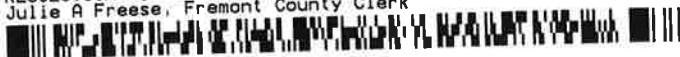


TABLE 4
Minimum Horizontal Setbacks for Domestic Wastewater ^{1,2}

From	To Septic Tank or Equivalent	To Absorption System
Wells (includes neighboring wells)	50	100
Public Water Supply Well	100	200 ²
Property Lines	10	10
Foundation Wall (w/o drains)	5	10
Foundation Wall (with drains)	5	25
Potable Water Pipes	25	25
Septic Tank	N/A	10
Surface Water, Spring (including seasonal & intermittent)	50	50
Cisterns	25	25

¹ For disposal of non-domestic wastewater, the setback distance shall be determined by a hydrogeological study in accordance with Section 17(b) of Chapter 3 of the Wyoming Water Quality Rules and Regulations, but shall not be less than the distances shown in Table 4.

² Small wastewater systems that discharge to the same aquifer that supplies a public water supply well and are located within Zone 1 or 2 (Attenuation) of the public water supply well, as determined by Wyoming Department of Environmental Quality Source Water Assessment Project (2004) or as established in Section 2 of the Wyoming Wellhead Protection Guidance Document (1997), shall provide additional treatment. These systems will be required to obtain an individual permit to construct and will require that a PE sign, stamp, and date the application, as stated in Chapter 1 section 4 B. The additional treatment shall be in accordance with Chapter 3 Section 2(b)(ii) of the Wyoming Water Quality Rules and Regulations. The treatment system shall be designed to reduce the nitrates to less than 10 mg/L of NO₃- as N and provide 4-log removal of pathogens before the discharge leaves the property boundary of each small wastewater system.

4. Soil Absorption System Sizing.

- A. The total infiltration surface area of a soil absorption system shall be calculated by dividing the design flow rates in gallons per day (gpd) from Table 1 or Table 2 by the loading rate (gpd/ft²) found in Table 5.

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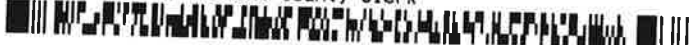


TABLE 5
Rate of Application for Leachfield Area

Percolation Rate (mpi) ¹	Loading Rate (gpd/ft ²) ²	Percolation Rate (mpi) ¹	Loading Rate (gpd/ft ²) ²
5	0.80	21	0.45
6	0.75	22	1.44
7	0.71	23-24	0.43
8	0.68	25	0.42
9	0.65	26-27	0.41
10	0.62	28-29	0.40
11	0.60	30-31	0.39
12	0.58	32-33	0.38
13	0.56	34-35	0.37
14	0.54	36-37	0.36
15	0.52	38-40	0.35
16	0.50	41-43	0.34
17	0.49	44-46	0.33
18	0.48	47-50	0.32
19	0.47	51-55	0.31
20	0.46	56-60	0.30

1 – Minutes per inch

2 – Gallons per day per square foot,

B. The total infiltration area shall be defined as follows:

- I. For standard trenches the total infiltration area shall be calculated based on the following formula:

$$A = L(W + 2S)$$

A = Total infiltration area

L = Total length of trench

W = Bottom width

S = Sidewall height of 12 inches or less

- a) The sidewall height is the depth below the flowline of the pipe to the bottom of the trench.
- b) The maximum credit for sidewall height shall not exceed twelve (12) inches even if the actual sidewall height exceeds twelve inches.

- II. For chamber trenches, the total infiltration area shall be calculated based on the

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following formula:

$$A = L(E + 2S)$$

A = Total infiltration area

L = Total length of trench

E = Effective bottom width (Multiply width of the chamber by factor of 1.43 to get effective bottom width)

S = Sidewall height of 12 inches or less

- a) The factor of 1.43 incorporates a thirty percent (30%) reduction of the bottom area.
- b) The maximum credit for sidewall height shall not exceed twelve (12) inches even if the actual sidewall height exceeds twelve (12) inches.
- c) The sidewall height is the height of the slotted sidewall of the chamber or depth below the flow line of the inlet pipe, whichever is less.
- d) The total length of the trench is the number of chambers in a row multiplied by the length of one piece of chamber.

III. For standard bed systems, the total infiltration area shall be calculated based on the following formula:

$$A = LW$$

A = Total infiltration area

L = Total length of bed

W = Width of the bed

- a) The sidewall credit shall not be used in calculating the total infiltration area for a bed system.

IV. For chamber bed systems, the total infiltration area shall be calculated based on the following formula:

$$A = L(E \times R)$$

A = Total infiltration area

L = Total length of bed

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E = Effective bottom width of the chamber (Multiply width of the chamber by factor of 1.43 to get effective bottom width)

R = Number of chamber rows (Multiply effective bottom width of chamber by number of chamber rows to get effective bottom width of bed.)

- a) The factor of 1.43 incorporates a thirty percent (30%) reduction of the bottom area.
 - b) The total length is the number of chambers in a row multiplied by the length of one piece of chamber.
- C. Coarse sand or soils having a percolation rate less than one (1) minute per inch (mpi) are unsuitable for subsurface effluent disposal. These soils may be used if a one (1) foot layer of fine sand or loamy sand is placed below the constructed soil absorption system. The soil absorption system shall be sized based on the percolation rate of the fill material.

5. Building Sewer Pipes.

- A. All building sewers shall be installed in accordance with the 2012 International Plumbing Code (IPC). In the absence of a locally approved plumbing code, and in addition to the IPC, the building sewer shall comply with the following:
 - I. Suitable building sewer pipe materials are polyvinyl chloride (PVC) or acrylonitrile-butadiene-styrene (ABS). The septic tank inlet and outlet pipes shall be schedule 40 PVC or ABS pipe and shall span the excavations for the septic tank and/or dosing chamber. American Society for Testing and Materials (ASTM) D-3034 Standard Dimension Ratio (SDR) 35 plastic pipe may be used if the void at the tank's side is filled with material that is granular, clean, and compacted.
 - II. Building sewer pipes shall be sized to handle the peak hourly flow from the building and shall not be smaller than four (4) inches in diameter. When two different sizes or types of sewer pipes are to be connected, a proper type of fitting or conversion adapter shall be used.
 - III. Sewer pipe shall not decrease in size flowing downstream.
 - IV. Building sewer pipes shall be laid at a standard slope of 1/4 inch per foot, and shall not be flatter than 1/8 inch per foot.
 - V. Cleanouts shall be provided between the structure and the tank, at branch connections, every change in alignment, and at least every 100 feet in straight runs.
 - VI. All sewer piping shall be laid on a firm bed throughout its entire length. It shall be protected from damage due to rocks, hard lumps of soil, debris, and the like.
 - VII. Special care shall be used to prevent lateral movement or deformation during backfill.

The backfill material shall be compacted to a density at least equivalent to the trench walls. Backfill over the pipe shall be of sufficient depth to protect the pipe from expected traffic loads and the wastewater from freezing.

6. Septic Tanks and Other Treatment Tanks.

A. Septic Tanks

I. Design

- a) Septic tanks shall be fabricated or constructed of concrete, fiberglass, thermoplastic or an approved material. Tanks shall be watertight and fabricated to constitute an individual structure, and shall be designed and constructed to withstand anticipated loads. As part of the application review process, Department of Environmental Quality, Water Quality Division (DEQ/WQD) or the delegated small wastewater program shall review the design of prefabricated septic tanks for compliance with applicable construction standards.

II. Installation

- a) The septic tank shall be placed on a level grade and a firm bedding to prevent settling. Where rock or other undesirable protruding obstructions are encountered, the opening for the septic tank shall be over excavated, as needed, and backfilled with sand, crushed stone, or gravel to the proper grade.
- b) Septic tanks shall not be buried deeper than the tank manufacturer's maximum designed depth for the tank. The minimum depth of soil cover over the top of the tank is six (6) inches.
- c) Backfill around and over the septic tank shall be placed in such a manner as to prevent undue strain or damage to the tank or connected pipes.
- d) Septic tanks shall not be placed in areas subject to vehicular traffic unless engineered for the anticipated load.

III. Size

- a) The minimum liquid volume of a septic tank shall be 1000 gallons for residences up to a four (4) bedroom capacity. Additional capacity of 150 gallons per bedroom shall be provided for each bedroom over four (4).
- b) Septic tanks for high strength wastewater or non-residential units shall have a minimum effective liquid capacity sufficient to provide at least 48 hour retention at design flow or 1,000 gallons, whichever is greater.

IV. Configuration

- a) Single compartment septic tanks shall have a length to width ratio of no less than two-to-one (2:1), or be partitioned to protect against short circuiting flow.
- b) For septic tanks with two (2) compartments or more, the inlet compartment shall not be less than one-half (1/2) of the total capacity of the tank.
- c) The liquid depth shall be between three (3) feet and six (6) feet.
- d) The tank partition shall allow the venting of gases between compartments and out through the vent stack on the plumbing system of the house.
- e) The inlet and outlet on all tanks or tank compartments shall be provided with open-ended sanitary tees or baffles made of approved materials constructed to distribute flow and retain scum in the tank or compartments.
 - i. The tees or baffles shall extend above the liquid level a minimum distance of five (5) inches.
 - ii. The inlet tees or baffles shall extend below the liquid level at least eight (8) inches but no more than 40% of the liquid level. The outlet tees or baffles shall extend below the liquid level at least ten (10) inches but no more than 45% of the liquid level.
 - iii. A minimum of one (1) inch of clear space shall be provided over the top of the baffles or tees for venting.
 - iv. The inlet pipe shall be at least two (2) inches higher than the outlet pipe. The outlet elevation shall be designed to provide a minimum distance of nine (9) inches or twenty (20) percent of the liquid depth between the top of the liquid and the bottom of the septic tank cover for scum storage and the venting of gases.
- f) If additional septic tank capacity over 1,000 gallons is needed, it may be obtained by joining tanks in series provided the following requirements are met:
 - i. The inlet of each successive tank shall be at least two (2) inches lower than the outlet of the preceding tank, and shall have no tee or baffle except for the inlet to the first tank and the outlet for the last tank.
 - ii. The first tank or the first compartment of the first tank shall be equal to fifty percent (50%) or larger of the total septic tank system volume.
- g) An access opening shall be provided to each compartment of the septic tank for inspection and cleaning.

- i. The access opening(s) in the cover/lid of the tank shall have a minimum diameter of twenty (20) inches. Both inlet and outlet devices shall be accessible.
 - ii. Access openings for each compartment shall have a riser from the access opening. Each riser opening shall contain a safety screen. The riser from the access opening shall terminate at a maximum of six (6) inches below the ground surface. Riser covers terminating above grade shall have an approved locking device.
- h) An effluent filter with an opening of 1/8-inch or smaller shall be provided on the outlet of a septic tank or other tank that precedes a small diameter pressure distribution system.

B. Dosing Tanks

- I. Dosing tanks shall meet the same material and installation requirements as septic tanks. Dosing tanks shall have a minimum 20-inch diameter access opening, shall have a riser from the access opening to the ground surface, shall contain a safety screen and the lid shall have an approved locking device. The following table shall be used to calculate the size of the dosing tank:

TABLE 6
Dosing Tank Volume (gallons)

AVERAGE Design Flow (gpd)	0-499	500-999	1000-1499	1500-2000
Between Pump "off" and Tank Inlet	350	700	1000	1300
Between Tank Inlet and Alarm Switch	200	400	600	800
Between Alarm switch and Pump "on"	50	100	100	100
Between Pump "on" and Pump "off"	100	200	300	400
Recommended Pump Capacity (gpm)	10	20	30	40

- II. High water alarms shall be provided for all tanks that use pumps or siphons. The alarm device shall be an audible alarm or an indoor illuminated alarm or both.
- III. The minimum effluent level shall achieve complete submergence of the pump.
- IV. Dosed systems using a siphon shall have a dose counter installed to check for continued function of the siphon.

C. Holding Tanks

- I. Holding tanks shall meet the same material requirements as septic tanks. Holding tanks shall have a twenty (20)-inch minimum diameter access opening, shall have a

riser from the access opening to the ground surface shall contain a safety screen and the lid shall have an approved locking device.

- II. Holding tanks shall not be used for residential systems when other alternative systems are available, except on a temporary, seasonal or intermittent basis, or when used to correct a failed soil absorption system when other alternatives are unavailable.
- III. Holding tanks must be located in an area readily accessible to the pump truck and where the tank itself will not float due to high groundwater. If seasonal high groundwater may be present, the tank shall be properly anchored.
- IV. The minimum liquid volume shall be the greater of 1,000 gallons or seven (7) days storage based upon flow rate determined from Section 1.
- V. All holding tanks shall be equipped with a high-water level alarm. The device shall be an audible alarm or an indoor illuminated alarm or both. The device shall be installed so that the alarm is triggered when the water level reaches 3/4 of the tank capacity.
- VI. A design package for holding tanks is provided online at the Department of Environmental Quality, Water Quality Division's website to assist the applicant in submitting a completed application for coverage under the general permit for small wastewater systems. The worksheet and calculations were prepared by a registered professional engineer employed by the Wyoming Department of Environmental Quality, Water Quality Division. The general design requirements stated in this section are incorporated into the worksheets such that by properly completing the forms and installing the components, the system will comply with these requirements.

D. Abandonment of Septic and Holding Tanks

- I. The following is the procedure to abandon septic tanks and holding tanks when the system is upgraded, equipment replacement is necessary, or central sewer lines are made available.
 - a) The tank to be abandoned should be pumped and the septage hauled to a licensed facility approved to receive the waste or the septage pumped into the newly constructed septic or holding tank. Discharging to a central sewer requires coordination with, and the approval of, the owner/operator of the sewer system.
 - b) Once the abandoned tank is empty, it should be removed and the excavation backfilled. As an alternative to removing the tank, the access covers can be removed; the bottom drilled or broken up sufficient to drain; and the tank filled with native soil, pit run, or sand.
 - c) If the abandoned tank is part of a Class V UIC facility, the abandonment must also be in compliance with Chapter 27, Section 19 of the Wyoming Water Quality Rules and Regulations.

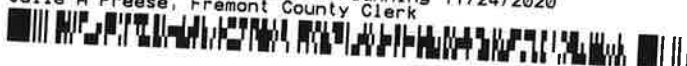
7. Effluent Distribution Devices.

- A. Distribution boxes and flow divider tees are suitable for level or nearly level ground and shall be installed before the soil absorption system with the goal of splitting flows equally between soil absorption system laterals. Drop boxes are suitable for sloping ground and are installed to achieve serial loading.
 - I. Distribution Boxes
 - a) The distribution box shall be installed on a level, stable base to prevent tilting or settling, and to minimize movement from frost heave.
 - b) Boxes shall be watertight and constructed of concrete or other durable material.
 - c) Boxes shall be designed to accommodate the inlet pipe and the necessary distribution lines. The inlet piping to the distribution box shall be at least one (1) inch above the outlet pipes and all pipes shall have a watertight connection to the distribution box.
 - d) The box shall be protected against freezing and made accessible for observation and maintenance.
 - e) Boxes shall have flow equalizers installed on each outflow.
- B. Flow divider tees may be used in place of distribution boxes.
- C. Drop boxes are suitable for sloping ground and are installed to achieve serial loading. The drop boxes shall meet the requirements of Section 7 (A) I above.

8. Standard Soil Absorption Systems.

A. General Design Requirements:

- I. All soil absorption systems shall be designed in such a manner that the effluent is effectively filtered and retained below the ground surface. The absorption surface accepts, treats, and disperses wastewater as it percolates through the soil.
- II. Soil absorption systems shall not be excavated when the soil is wet enough to smear or compact easily. Open soil absorption system excavations shall be protected from surface runoff to prevent the entrance of silt and debris. All smeared or compacted surfaces shall be raked to a depth of one (1) inch, and loose material removed before filter or filler material is placed in the soil absorption system excavation.
- III. Soil absorption systems shall be designed to approximately follow the ground surface contours so that variation in excavation depths will be minimized. The trenches may be installed at different elevations, but the bottom of each individual trench shall be



level throughout its length.

- IV. Shallow soil absorption system depths are encouraged to promote treatment and evapotranspiration. The minimum soil cover depth over the soil absorption system is one (1) foot. The maximum depth to the bottom absorption surface of a soil absorption system is five (5) feet. Finished grading shall prevent ponding and promote surface water runoff.
- V. Pipes, chambers or other products shall be bedded on firm, stable material. Heavy equipment shall not be driven in or over soil absorption systems during construction or backfilling.

B. Pipe and Stone Trench

- I. Standard trenches refer to perforated pipe embedded in aggregate-filled trenches that shall conform to the following:
 - a) The perforated pipe shall have a minimum diameter of 4 inches. Suitable pipe materials include: ASTM D-2729-11 PVC, ASTM D-3034-08 PVC, Schedule 40 PVC ASTM d1784-11, and ASTM F810-07 PE.
 - b) The aggregate shall be crushed rock, gravel or other acceptable, durable and inert material that is free of fines, and has an effective diameter between 1/2 inch and 2- 1/2 inches.
 - c) Prior to backfilling, the aggregate shall be covered throughout with a woven/non-woven geotextile material or equivalent.
 - d) Aggregate shall extend the full width and length of the soil absorption system to a depth of at least twelve (12) inches with at least six (6) inches of drain gravel under the distribution pipe and at least two (2) inches over the distribution pipe.
 - e) Maximum width of trench excavation is three (3) feet.
 - f) Minimum spacing of trenches (wall to wall) is three (3) feet. Trench spacing shall be increased to nine (9) feet when the area between each trench is considered as reserve area. For clay loam soils that have percolation rates greater than 60 min/in., the nine (9) foot spacing shall also be required but it is not considered as reserve area.

C. Pipe and Stone Bed

- I. Standard beds shall conform to the same pipe and aggregate requirements for trenches as found in Section 8 (B). I, a) thru d) above. Standard beds shall also conform to the following:
 - a) The soils shall have percolation rates less than 60 minutes per inch (5-60 mpi). The bottom of the bed must be level, therefore the site shall be relatively flat, sloping no

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more than one (1) foot from the highest to the lowest point in the installation area.

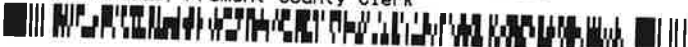
- b) Distribution laterals within a bed must be spaced on not greater than six (6) feet centers. Sidewalls shall not be more than three (3) feet from a distribution lateral.
- c) Beds must not be wider than twenty-five (25) feet if gravity distribution is used. Multiple beds must be spaced at one-half the bed width.
- d) Rubber tired vehicles must not be driven on the bottom surface of any bed excavation.

D. Chamber Trench

- I. Chambered trenches, when used in lieu of perforated pipe and aggregate, shall be installed in conformance with the manufacturer recommendations. No cracked, weakened, modified, or otherwise damaged chamber units shall be used in any installation.
 - a) All chambers shall be an open, arch-shaped structure of durable, non- degradable design, suitable for distribution of effluent without filter material.
 - b) All chamber endplates shall be designed so that the bottom elevation of the inlet pipe is at least six (6) inches from the bottom of the chamber.
 - c) Inlet and outlet effluent sewer pipes shall enter and exit the chamber endplates. Inspection ports shall be installed at all outlet effluent sewer pipes.
 - d) All chambers shall have a splash plate under the inlet pipe or another design feature to avoid unnecessary channeling into the trench bottom.
 - e) The maximum width of the bottom absorption surface for a chambered trench is three (3) feet. The excavation to install a chambered trench may exceed three (3) feet.
 - f) Minimum spacing of trenches (wall to wall) is three (3) feet. Trench spacing shall be increased to nine (9) feet when the area between each trench is considered as reserve area. For clay loam soils that have percolation rates greater than 60 min/in., the nine (9) foot spacing shall also be required but it is not considered as reserve area.

E. Chamber Bed

- I. Chambered beds shall conform to the same requirements for chambered trenches as found in-Section 8 (D) I, a) thru d) above. Aggregate, as specified in Section 8 (B) I b) above, or native soil shall be used to fill the space between the chambers.



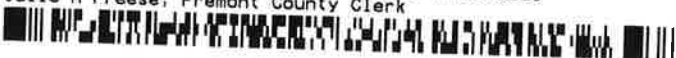
F. Serial Sidehill Trench

- I. A minimum of six (6) feet of undisturbed soil shall be maintained between adjacent trench or bed side walls.
- II. The bottom of each serial trench or bed system shall be level.
- III. The overflow pipe between serial soil absorption systems shall be set no higher than the mid-point of the upstream distribution pipe. The overflow pipe shall not be perforated.

9. Pressure Distribution Systems.

A. General Design Requirements:

- I. The basic elements of a pressure distribution system include a dosing tank, filter, and a means to deliver specified doses to a small diameter pipe network within a soil absorption system. Pressure distribution is required for mound systems or for bed systems with a width greater than twenty-five (25) feet.
- II. Pumps must be sized to match the distribution system curve or demand. Pumps shall be designed for sewage pumping applications and be accessible from the ground surface.
- III. The control system for the pump and dosing tank shall, at a minimum, consist of a “pump off” switch, a “pump on” switch, and a “high liquid alarm.”
 - a) All electrical connections must be made outside of the chamber in either an approved weatherproof box or an explosion-proof junction box.
 - b) The wiring from the junction box to the control box must pass through a sealing fitting to prevent corrosive gases from entering the control panel.
 - c) All wires must be contained in solid conduit from the dosing chamber to the control box.
- IV. The pressure transport piping between the tank and the soil absorption system shall be designed to prevent freezing.
 - a) The ends of lateral piping shall be constructed with long sweep elbows or an equivalent method to bring the end of the pipe to finished grade. The ends of the pipe shall be provided with threaded plugs, caps, or other devices to allow for access and flushing of the lateral.
 - b) All joints in the manifold, lateral piping, and fittings shall be solvent- welded using the appropriate joint compound for the pipe material. Pressure transport piping may be solvent-welded or flexible gasket jointed.



- c) Where automatic siphons or other devices are used, they shall be designed to empty the dosing tank in less than ten (10) minutes.
- V. The pressure distribution system shall have a combination of at least three (3) vertical feet of filter sand and/or unsaturated native soil above the high groundwater level. The filter sand shall conform to ASTM C-33, with less than 2% passing the #200 sieve.

10. Sand Mound Systems.

A. The sand mound consists of a sand fill, an aggregate bed and a soil cap.

I. Selection Criteria:

- a) The high groundwater level, bedrock, or impervious clay layer is less than four (4) feet below the bottom of the soil absorption system excavation.

II. Site Requirements:

- a) A minimum of one (1) foot of vertical separation of the native soil is required between the bottom of the sand fill and the top of the high groundwater level, any restrictive layer, or any highly permeable material.
- b) The percolation rate of the native soil at the interface of the sand fill shall be greater than five (5) and less than sixty (60) minutes per inch (5-60 mpi). The percolation shall be measured in the top twelve (12) inches of native soil.

III. General Design Requirements:

a) Sand Layer

- i. Filter sand shall conform to ASTM C-33, with less than two percent (2%) passing through the #200 sieve.
- ii. The minimum depth of sand below the aggregate bed surface shall be one (1) foot.
- iii. The sand mound shall have a combination of at least four (4) vertical feet of filter sand and unsaturated native soil above the high groundwater level.
 - For sand mounds using pressure distribution systems, the depth to high groundwater shall be three (3) feet below the bottom of the absorption surface if the percolation rate of the soil is five (5) minutes per inch or greater (5-60 mpi).

- iv. The top of the sand layer under the aggregate bed shall be level in all directions.

- v. The sand layer shall fill around the perimeter of and to the top of the aggregate bed.
- vi. The slope of all sides shall be three (3) horizontal to one (1) vertical or flatter. The side slopes shall be graded to prevent seepage and/or ponding at the bottom of the slope.
- vii. The infiltration area, which is the bottom of the sand fill, shall be calculated by dividing the design flowrates (gpd) from Table 1 or Table 2 by the loading rate (gpd/ft²) found in Table 5.

b) Aggregate Bed

- i. The aggregate shall be crushed rock, gravel or other acceptable, durable and inert material that is free from fines, and has an effective diameter between one-half (1/2) inch and two and one half (2 1/2) inches.
- ii. The aggregate bed depth shall not be less than nine (9) inches with a minimum of six (6) inches of clean aggregate placed below the distribution pipe and two (2) inches above the distribution pipe. The aggregate shall be covered with an approved geotextile material after installation and testing of the pressure distribution system.
- iii. The design shall be a long, narrow bed design with a maximum width of twenty-five (25) feet.
- iv. The infiltration area, which is the bottom of the aggregate bed, shall be calculated by dividing the design flowrates (gpd) from Table 1 and Table 2 by the loading rate of 0.8 gpd/ft².

c) Soil Cover

- i. The soil cap shall be constructed of a sandy loam, loamy sand, or silt loam. The depth of the soil cap shall be at least six (6) inches at the edges to twelve (12) inches at the center. The slope of all sides shall be three (3) horizontal to one (1) vertical or flatter.
- ii. A layer of top soil at least six (6) inches thick shall be placed over the entire sand mound area. The sand mound should be planted with vegetation that does not require watering and will not establish deep roots. Native grasses are commonly used.

11. Small Wastewater Lagoons.

A. Selection Criteria:

- I. Lagoons shall only be considered in areas of Wyoming where the annual evaporation exceeds the annual precipitation during the active use of the lagoon.
- II. Lagoons shall only be allowed when the percolation rate exceeds sixty (60) minutes per inch and the soil extends vertically down at least two (2) feet from the bottom of the lagoon to the seasonal high groundwater table or bedrock formations.
- III. A lagoon shall not be constructed within the 100 year floodplain.

B. General Design Requirements:

- I. Beyond the horizontal setback distances requirements specified in Table 4, the lagoon shall not be placed within one hundred (100) feet of the owner's property line.
- II. The use of a septic tank that meets the specifications in Section 6 shall be required ahead of any small wastewater lagoon.
- III. The lagoon shall be located and constructed so it will not receive surface runoff water.
- IV. The slope of the lagoon site shall not exceed five percent (5%).
- V. The lagoon site must be located in an area of maximum exposure to sun and wind.
- VI. The lagoon shall be designed for complete retention.
- VII. The area of the lagoon shall be calculated based on the following formula.

$$A = \frac{584 \times Q}{(365 \times S) + (E - P)}$$

A = Area of the lagoon (in square feet) at the maximum operating depth of five (5) feet.

Q = Average daily sewage flow, gallons per day. (Multiply values from Table 1 or 2 by 0.6 to get average daily flow.)

E = Average annual lake evaporation in inches per year. (Note: lake evaporation is less than pan evaporation; lake evaporation equals pan evaporation times a pan coefficient of 0.7)

P = Average annual precipitation rate in inches per year.

S = Seepage rate in decimal form, in inches per day.

- VIII. The slopes of the dikes shall not be steeper than three (3) horizontal to one (1) vertical. The minimum width of the top of the dike shall be four (4) feet.
- IX. All fill shall consist of impervious material that is well compacted and free of rocks, frozen soil, or other large material.
- X. The minimum operating depth shall be two (2) feet. The dikes shall provide a minimum freeboard of two (2) feet.
- XI. The floor of the lagoon shall be level and maintained free of all vegetation.
- XII. All small non-discharging waste stabilization ponds shall be two (2) compartment and separated by an earthen berm or partition dike. The partition dike must have a weir at the operating level and be lined with suitable material to prevent erosion.
- XIII. The influent line into the lagoon must discharge near the center.
- XIV. A cleanout, with a tightly fitting cap shall be provided in the influent line near the dike.
- XV. The area around the small wastewater lagoon shall be fenced to preclude the entrance of livestock, pets, and humans. The fence shall be equipped with a locking gate. The gate shall have a sign indicating "NO TRESPASSING – WASTEWATER LAGOON."

12. Privies or Outhouses.

- A. Privies or outhouses shall not be used for residential systems when other alternative systems are available, except on a temporary, seasonal or intermittent basis.
- B. Privies or outhouses shall be sealed, water-tight vaults and shall meet the following conditions.
 - I. The horizontal setback distance requirements for sealed privies or outhouses shall comply with Table 4 for septic tanks.
 - II. The depth to seasonally high groundwater from the bottom of a water tight vault shall be sufficient to prevent floatation of the empty vault.
 - III. The vault must have sufficient capacity for the dwelling served, and must have at least 27 cubic feet or 200 gallons of capacity.
 - IV. Privies or outhouses must be insect tight; must have a self-closing door; the privy or outhouse seat must include a cover; and all exterior openings, including vent openings,

shall be screened.

V. Privies or outhouses must be adequately vented.

VI. Privies or outhouses shall not be constructed within the 100 year floodplain.

13. Greywater Systems.

A. Greywater Systems are generally not recommended in Fremont County except for seasonal, non-freezing temperature, use. Prior to considering installation of a Greywater System, you should consult Fremont County Planning to determine its applicability and cost.

I. Greywater Operation and Requirements

a) Restrictions

- i. Greywater shall not leave the property on which it is generated. Ponding or runoff is prohibited.
- ii. Greywater systems shall not be installed in a delineated floodplain.
- i. The volume of greywater shall not exceed an average of 2000 gallons per day.
- ii. Greywater shall not come in direct contact with or adversely impact surface or groundwater.
- iii. Food crops for direct human consumption should not be harvested for 30 days after application of greywater.

b) Odor control of the greywater system shall meet the requirements of Wyoming DEQ Air Quality Regulations Chapter 2, Section 11.

c) If the greywater system is to be used during the winter, the greywater system shall be designed to prevent freezing.

II. Estimating Greywater Discharge

a) The greywater discharge for single family and multi-family dwellings shall be calculated by estimates of greywater use based on water use records, or the following procedure:

- i. The number of occupants of each dwelling unit shall be calculated as 2 occupants per bedroom.
- ii. The estimated greywater flows of each occupant shall be calculated in gallons per day (gpd) as follows:

- Showers, bathtubs and wash basins – 25 gpd/occupant
 - Laundry – 15 gpd/occupant
- b) The total number of occupants shall be multiplied by the applicable estimated greywater discharge as provided above and the type of fixtures connected to the greywater system.

III. Greywater System Configurations

- a) All greywater systems shall be constructed following the design recommendations described in Chapter III, 8, B-F.
- b) All greywater systems shall have means to direct greywater to either the blackwater system or the greywater system.
- c) Diverter valves shall not have the potential to allow backflow from the blackwater system into the greywater system.
- d) Greywater used for surface irrigation should be disinfected. The disinfection should achieve a fecal coliform level of 200 cfu/100 mL or less.

IV. Setbacks

- a) A 30-foot buffer zone is required between the greywater application site and adjacent property lines and any public right-of-way.
- b) A 30-foot separation distance is required between greywater application sites and all surface waters.
- c) A 100-foot separation distance is required between greywater application sites and all potable water supply wells.

14. Operation and Maintenance.

- A. For any system that disposes of wastewater through land application or subsurface filtration, the owner shall not add any chemical or biochemical additive to the system that would adversely affect the quality of the groundwater as stated in the WDEQ Water Quality Rules & Regulations, Chapter 8.
- B. Septic tanks shall be pumped as needed to prevent solids carryover into the soil absorption system.
- C. Holding tanks and sealed vaults shall be pumped prior to reaching their maximum capacity.

- D. Any service provider that pumps septic tanks, holding tanks, or sealed vaults, shall dispose of the wastewater contents at a permitted wastewater treatment facility or in a manner approved by the Department of Environmental Quality, Water Quality Division and permitted by Fremont County Planning.
- E. Damaged fittings and broken, crushed or plugged piping associated with any small wastewater system shall be replaced in a timely manner.
- F. Composting or non-discharging toilets, where permitted, shall have their waste disposed of at a permitted wastewater treatment facility or landfill, or in a manner approved by the Department of Environmental Quality, Water Quality Division and Fremont County Planning.
- G. Leachfields shall be protected from vehicular traffic or other forces that may compact the soils.

15. System Failure.

- A. Any septic system where effluent is 'daylighting' shall be replaced.
- B. When a septic tank inspection indicates structural deficiency of the tank, the tank shall be replaced.
- C. When inspection reveals tank or system construction that does not meet the requirements of these regulations, the tank or system shall be replaced.

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CHAPTER IV

ENFORCEMENT

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1. Validity.

- A. If any section, subsection, sentence, clause, or phrase of these rules and regulations is for any reason held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of these rules and regulations.

2. Enforcement

- A. Any person, firm, or corporation violating the provisions of these regulations maybe deemed guilty of a misdemeanor. Each and every day or partial day during which any violation of any of the provisions of the regulation is committed, continued, or allowed shall be considered a separate offense. Upon conviction of any such violation, such a person may be punished as provided by law with a fine accruing for each day of violation, and/or imprisonment. Any person who violates, or any director, officer or agent of a corporate permittee who willfully and knowingly authorizes, orders or carries out the violation of any provision of these regulations, or who violates any determination or order of the Board of Fremont County Commissioners pursuant to these regulations, or any rule, regulation, standard, permit, license or variance is subject to penalties, fines, imprisonment, and/or temporary or permanent injunctions per W.S. § 35-11-901 (a).
- B. Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained under these regulations or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under these regulations shall, upon conviction, be fined not more than \$10,000.00 per day for each violation, and/or shall be imprisoned for not more than one (1) year, pursuant to W.S. § 35-11-901(k).
- C. If an owner or operator of a small wastewater facility under these regulations voluntarily reports a violation disclosed by an audit conducted under W.S. § 35-11-1105 within sixty (60) days of the completion date of the audit, the limitations on civil penalties will apply, as detailed in W.S. §35-11-1106.
- D. Enforcement procedures.
 - I. In the event that any of the requirements stated in the Fremont County Small Wastewater Regulations are not satisfied, or a small wastewater system is illegally installed or a system has failed, the following notices will be employed. The notices fall into four (4) categories: Notice of Deficiency, Notice of Failure, Notice of Non-Compliance and Notice of Violation. In cases where a septic pumping company illegally applies septage to the surface without a permit, only the Notice of Non-Compliance and Notice of Violation shall apply.

- a) A Notice of Deficiency is used to alert the permittee/contractor of any deficiencies found at the time of final inspection. Corrective action is called for and, when implemented, assures that the project has been brought into full compliance.
- b) A "Notice of Failure" is used to alert the owner that the small wastewater system on their property has failed and that immediate corrective action must be taken to ensure that there is no threat to health, safety, or welfare.
- c) A "Notice of Non-Compliance" is issued in the event that a septic pumping company illegally applies septage to the surface without a permit or an individual fails to submit an application, pay the fee(s), comply with installation requirements described in these regulations, or fails to comply with Notice of Deficiency or Notice of Failure.
- d) A "Notice of Violation" is used when a "Notice of Non-Compliance" has not been complied with within thirty (30) days of issuance or may be used for a person or persons who disregards requests for submission of application materials and contractors/installers who install systems without the benefit of a permit.

II. Purpose.

- a) The purpose of the notices is to convey to the public the type of deficiency or nature of any potential threat to public health and welfare by; (1) outlining the nature of the violation, and, (2) listing the steps required to bring the system into compliance.
- b) The goal of the notices is to help ensure the health of individuals involved and protect groundwater resources.

III. Consequences resulting from the issuance of a Notice.

- a) The issuance of a Notice of Non-Compliance or a Notice of Violation can impede the sale of a property at the time of closing as the title will be clouded which can only be cleared when the Fremont County Small Wastewater Regulations are complied with and the Notice is rescinded.

IV. Protocol for issuing Notice of Deficiency

- a) The landowner will be contacted by telephone or via site visit and an informal request for compliance will be made verbally. The request will then also be stated in writing and a copy will be mailed to the landowner. If the landowner does not comply within the amount of time stated in the request, the Notice of Deficiency will be sent via certified mail, giving the landowner thirty (30) days after its receipt to comply. Failure to comply with the request within the specified thirty (30) day deadline will result in the issuance of a Notice of Non-compliance.

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V. Protocol for issuing Notice of Failure.

- a) Because of the immediate danger to health and safety that a failed small wastewater system presents, the landowner will be contacted by telephone or via site visit and a request for an immediate solution to the failure will be made verbally. The request will also be stated in writing and a copy will be mailed via certified mail to the landowner. A Notice of Failure letter shall stipulate that a solution to the failed system must be addressed within fifteen (15) days or a Notice of Non-Compliance will be issued.

VI. Protocol for issuing Notice of Non-Compliance.

- a) Failure to comply with a Notice of Deficiency or Notice of Failure request within the specified deadline or discharging septage to the surface without an approved Permit will result in the issuance of a Notice of Non-Compliance. After the Notice of Non-Compliance is issued, the landowner or pumping company owner may make a written request, within ten (10) days of its receipt, for a hearing before the Board of Fremont County Commissioners. If a hearing is requested, the Notice of Non-Compliance will not be recorded with the County Clerk unless the Fremont County Commissioners deny the landowner's written request, or if they find in favor of the landowner at the hearing.
- b) Ten days after the pumping company or landowner's receipt of the Notice of Non-Compliance, said Notice will be recorded with the office of the Fremont County Clerk, unless a hearing has been requested. A copy of the recorded Notice will be forwarded to the landowner, applicant or pumping company owner and the original document will be archived with the Fremont County Planning Department. The notification shall comply with the recording requirements for recording public documents as stipulated in W.S. §34-1-119.
- c) The recorded document shall contain:
 - i. The original document will contain an original signature of the Fremont County Director of Planning, date of the document, and shall be notarized prior to recording the document;
 - ii. Legal description of the location of the violation;
 - iii. Contact information for individual in violation and for the County;
 - iv. Nature of the infraction with corresponding regulation cited;
 - v. Requisite corrective action conforming to standards as outlined in Fremont County Small Wastewater Regulations;
 - vi. The page margin shall leave ample room for the Clerk to affix a recording label.



CHAPTER V

ADOPTION

This resolution setting forth various rules, regulations and standards for a Permit to construct, install, or modify small wastewater facilities in Fremont County, Wyoming shall be in force and effect after its adoption by the Board of County Commissioners and its proper filing with the Fremont County Clerk and Recorder in accordance with the requirements of the Wyoming Administrative Procedures Act.

APPROVED AND ADOPTED THIS 17th DAY OF November, A.D. 2020

Board of County Commissioners
Fremont County, Wyoming

Travis Becker
Travis Becker, Chairman

Larry Allen
Larry Allen, Vice-Chairman

Jennifer McCarty
Jennifer McCarty, Commissioner

Clarence Thomas
Clarence Thomas, Commissioner

Michael Jones
Michael Jones, Commissioner

ATTEST:

Julie Freese
Julie Freese
County Clerk



VII. Protocol for issuing Notice of Violation.

- a) In addition to the steps previously outlined for Notices of Non-Compliance, Notices of Violation will be issued when corrective action has not been taken within the stated thirty (30) day period of time from the recordation of the Notice of Non-Compliance.
- b) The potential enforcement action and penalty as outlined in Chapter IV Section 2 of the Fremont County Small Wastewater Regulations shall be listed in the Notice.
- c) The Notice of Violation will not be recorded with the County Clerk until fourteen (14) days after issuance.

VIII. Protocol for Rescinding Notices.

- a) Fremont County Planning Department staff shall physically verify onsite compliance with Fremont County Small Wastewater Regulations and the terms of the Notice. All remediation must be complete and must comply with these regulations.
- b) All necessary paperwork must be in good standing as described in Chapter II Section 2 and on file with the Fremont County Planning Department including the application fee.
- c) When the terms and conditions set forth in the Notice of Non-Compliance or the Notice of Violation have been met to the satisfaction of the Fremont County Planning Department or when determined by the court, a "Notice of Compliance" shall be recorded with the office of the Fremont County Clerk. A copy of the recorded Notice of Compliance will be forwarded to the landowner or applicant and the original document will be archived with the Fremont County Planning Department. The Notice of Compliance shall comply with the recording requirements for filing public documents as stipulated in W.S. §34-1-119.

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APPENDIX A

PERCOLATION TEST PROCEDURE

A. Purpose

- I. Percolation tests are used to determine absorption system site suitability and to size the absorption system.

B. Procedure

I. General Requirements:

- a) Percolation tests shall not be conducted in test holes that extend into groundwater, bedrock, or frozen ground.
- b) The percolation test shall be conducted only after the soil exploration pit has been dug and examined.
- c) A minimum of three (3) percolation test holes are required.
- d) The percolation test holes shall be spaced uniformly over the proposed soil absorption system site.

II. Preparation

- a) A twelve (12) inch diameter hole shall be dug or bored to the proposed depth of the soil absorption system.
- b) The walls shall be vertical, with the natural soil surface exposed without smearing.
- c) The sides and bottom shall be scarified with a sharp pointed instrument and the loose material shall be removed from the hole.
- d) Two (2) inches of gravel or coarse sand shall be placed in the bottom of the hole to prevent it from scouring and sealing during water addition.

III. Presoaking

- a) The purpose of presoaking is to have the water conditions in the soil reach a stable condition similar to that which exists during continual wastewater application. The minimum time of presoaking varies with soil conditions but must be sufficiently long so that the water seeps away at a constant rate. The following presoaking instructions are usually sufficient to obtain a constant rate:
 - i. Fill each hole with clear water to a level at least eighteen (18) inches above the gravel or coarse sand. If the eighteen (18) inches of water seeps away in

eighteen (18) minutes or less, add eighteen (18) inches of water a second time. If the second filling of eighteen (18) inches of water seeps away in eighteen (18) minutes or less, this indicates the soil is sandy and is excessively permeable. The soil absorption system shall meet the requirements of Chapter III of the Fremont County Small Wastewater Regulations.

- ii. If either the first or second fillings of eighteen (18) inches of water does not seep away in ninety (90) minutes, eighteen (18) inches of water must be maintained in the hole for at least four (4) hours to presoak the test hole. After the four (4) hours of water contact time, wait at least twelve (12) hours before starting the percolation rate measurement.

IV. Percolation Rate Measurement

- a) Fill each test hole with twelve (12) inches of water and allow the soil to rehydrate for fifteen (15) minutes prior to any measurements.
- b) Establish a fixed reference point to measure the incremental water level drop at constant time intervals. The water level drop should be measured to the nearest $\frac{1}{8}$ of an inch and the minimum time interval is ten (10) minutes.
- c) Refill the test hole to twelve (12) inches above the gravel before starting the measurements. Continue to measure the incremental water level drop at a constant time interval until a consistent incremental water level drop is achieved. A consistent water level drop is achieved when three (3) consecutive water level drops are within $\frac{1}{8}$ inches of each other.
- d) Before the water level drops below one (1) inch above the gravel, refill the test hole to twelve (12) inches and continue to measure the incremental water level drop.
- e) The percolation rate is calculated for each hole using the following formula:

$$\text{Percolation Rate (minutes/inch)} = \frac{\text{Time Interval (minutes)}}{\text{Final Water Level Drop (inches)}}$$

- f) If only three to five percolation tests are performed, the design percolation rate for the absorption system is the largest rate from all the holes tested. If six or more percolation tests are performed, the design percolation rate for the absorption system is the average of all the holes tested as determined by the above formula.

V. The following information shall be recorded:

- a) Date(s) of test(s);
- b) Location, diameter, and depth of each test hole;

- c) Duration of presoak;
 - d) Time of day for beginning and end of each water-level drop interval;
 - e) Each water-level drop measurement;
 - f) Calculated percolation rate;
 - g) Name and signature of person performing test;
 - h) Name of owner or project name;
 - i) Certification that the percolation test was done in accordance with Wyoming Water Quality Rules and Regulations Chapter 25 Appendix A.
- C. Fremont County Planning Department reserves the right to reject any submitted percolation test data that does not follow the proper procedures or is deemed questionable as to its final results.
- D. Questionable results will be compared to neighboring percolation test data and NRCS soil data when making determinations. Fremont County Planning Department will, at its discretion, use a percolation rate that it deems to be representative for the given soil type.
- E. The burden of proof falls on the permittee or contractor who does not agree with Fremont County Planning Department's determination.
- F. The permittee or contractor's recourse, should they disagree with the Planning Department determination, is as follows (one of the following):
- I. Perform a second percolation test conducted by an independent third party. All costs will be incurred by the permittee.
 - II. Perform a second percolation test with the Small Wastewater Specialist present. This will count as an additional inspection and will incur an additional fee as found in the latest version of the Fremont County Planning and Rural Addressing Fee Schedule.

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APPENDIX B

Municipal Service Sewer Line Connection Distances

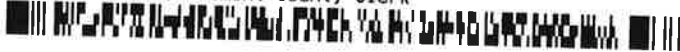
Unless authorized by the city, no new small wastewater system shall be approved in the Cities of Riverton, Dubois, Shoshoni or Hudson for a residential home where municipal sewer service lines are located within two hundred (200) feet of the proposed project and where connection to a sanitary sewer is allowed by the controlling authority for the sanitary sewer.

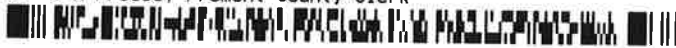
Unless authorized by the city, no new small wastewater system shall be approved in the City of Lander for a residential home where municipal sewer service lines are located within three hundred (300) feet of the proposed project and where connection to a sanitary sewer is allowed by the controlling authority for the sanitary sewer.

Unless authorized by the city, no new small wastewater system shall be approved in the City of Pavillion.

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APPENDIX C

Land Application of Domestic Septage in Remote Areas

- A. Restrictions and Requirements: To qualify for a Permit for the land application of domestic septage in remote areas, the following conditions must be met.
- I. Location restrictions:
- a) Domestic septage generated on a specific property may be land applied on said property, and shall not be transported to another location for land application.
 - b) No land application of domestic septage shall occur within 1,000 feet of all adjacent properties.
 - c) No land application of domestic septage shall occur within 300 feet of a public road, permanent surface water body, or intermittent stream.
- II. Site restrictions:
- a) The land application of domestic septage shall only occur on those sites with established vegetation such as rangeland, pasture or hay meadows.
 - b) No more than 5,000 gallons of domestic septage per acre per year shall be land applied.
 - c) No land application of domestic septage shall occur where the site's slope exceeds five percent (5%) or where the depth to groundwater is less than four (4) feet.
 - d) The land application of domestic septage shall not occur between November 1 and May 1, or any other time when frozen or saturated ground conditions exists.
 - e) No public access shall be allowed to any site where domestic septage has been applied for at least one (1) year following application.
 - f) No grazing animals shall be allowed access to any site where domestic septage has been land applied for at least thirty (30) days following application.
- III. Crop restrictions:
- a) No root crops shall be harvested from soils where domestic septage has been land applied for at least thirty-eight (38) months following application
 - b) No truck crops (harvested parts touch land surface) shall be harvested from soils where domestic septage has been land applied for at least fourteen (14) months following application.

- c) No commodity crops (other food, feed, and fiber crops whose harvested parts do not touch land surface) from soils where domestic septage has been land applied shall be harvested for at least thirty (30) days following application.
- d) No turf shall be harvested from soils where domestic septage has been land applied for at least one (1) year following application.

IV. Reporting Requirements:

- a) The property owner shall notify the appropriate Department of Environmental Quality, Water Quality Division (DEQ/WQD) District Engineer and Fremont County Planning prior to the land application of domestic septage to confirm the requirements and to arrange a possible DEQ/WQD/Fremont County inspection of the land application.
- b) All records related to each septage application will be maintained by the landowner for at least five (5) years.
- c) There is a worksheet provided online at the Department of Environmental Quality, Water Quality Division website that must be completed, signed, and returned to the DEQ/WQD, and Fremont County Planning, within 15 days of the land application.

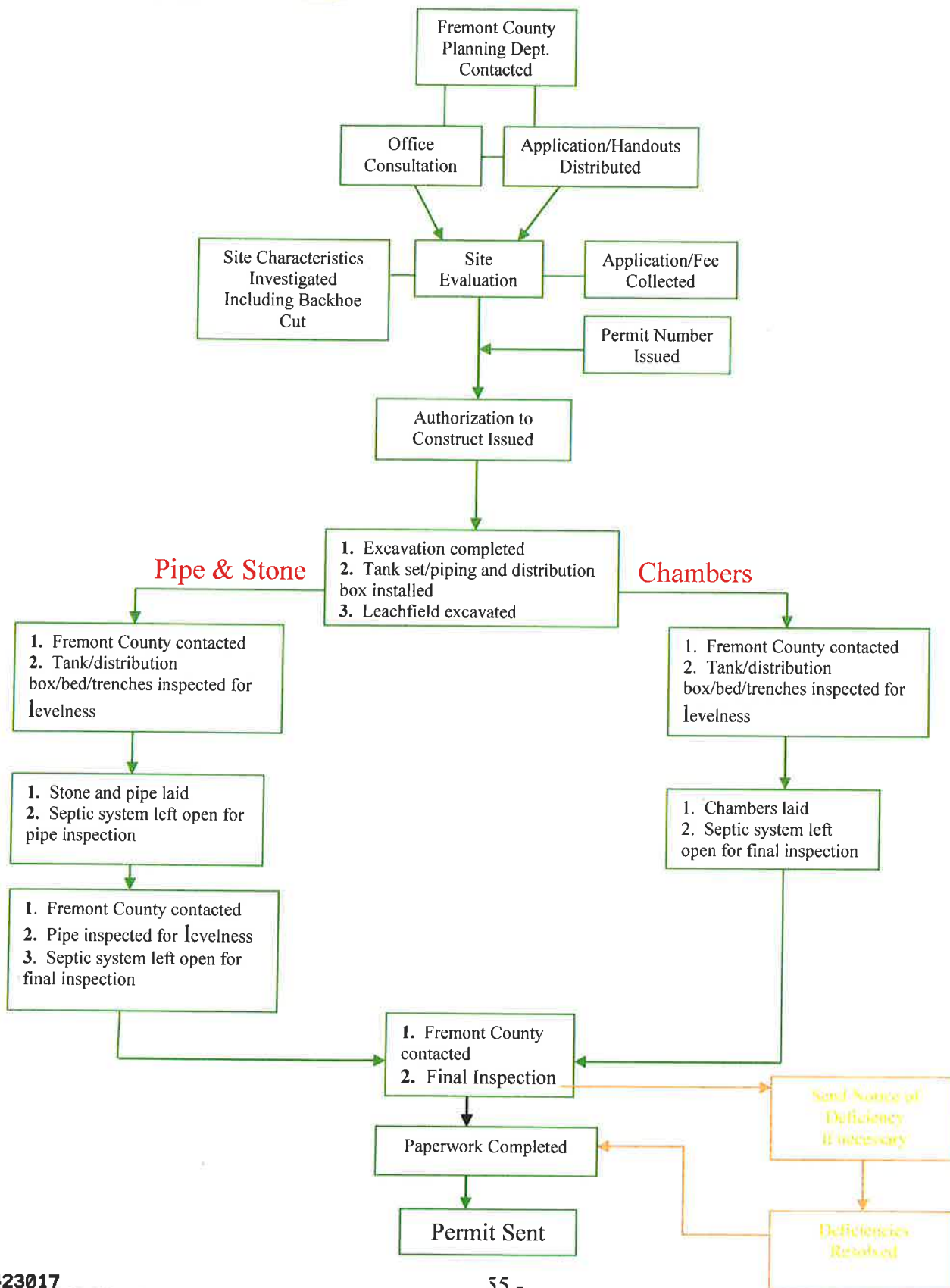
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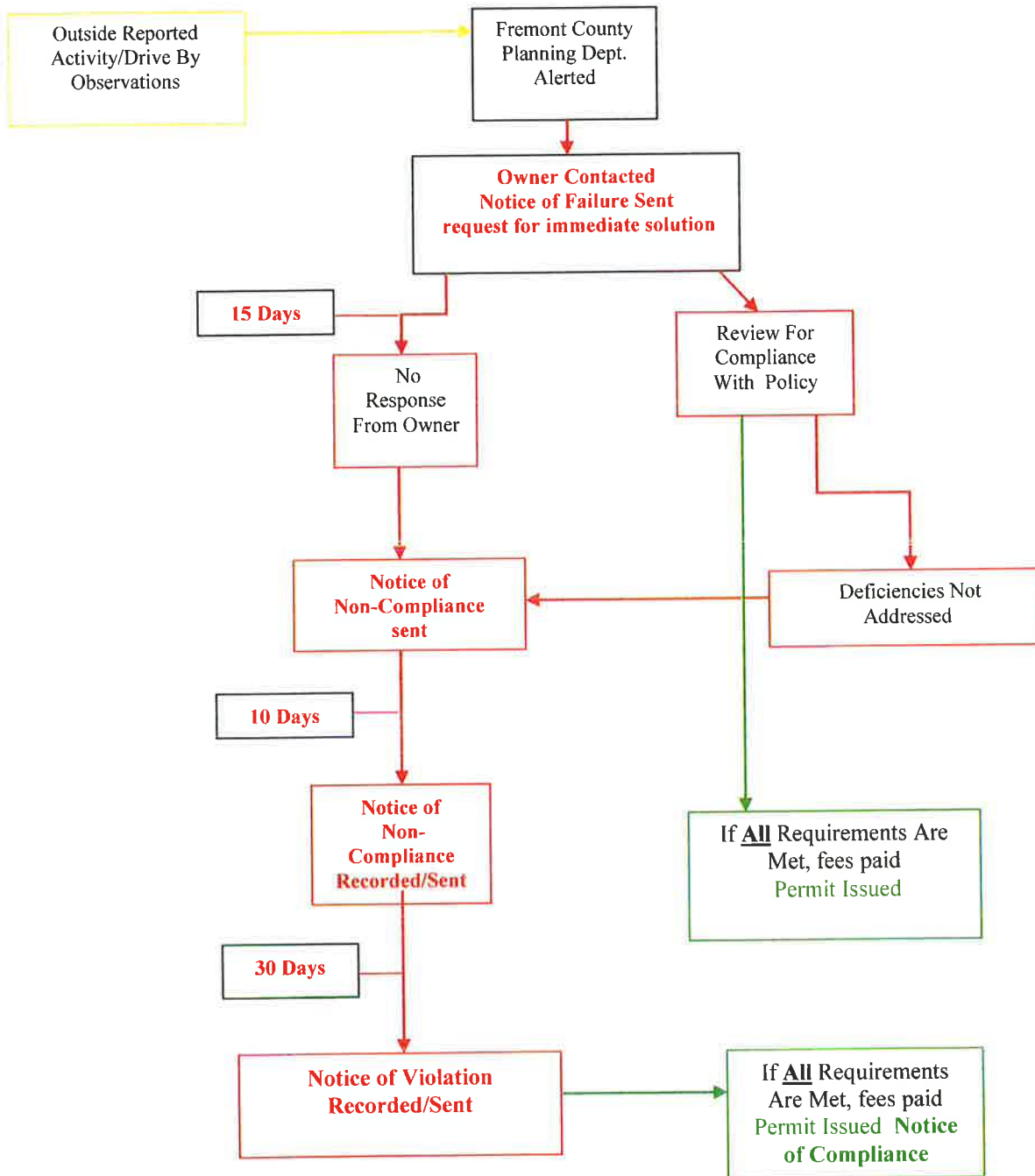


APPENDIX D Permitting Flow Chart(s)

Conventional Permitting



Failed System Process

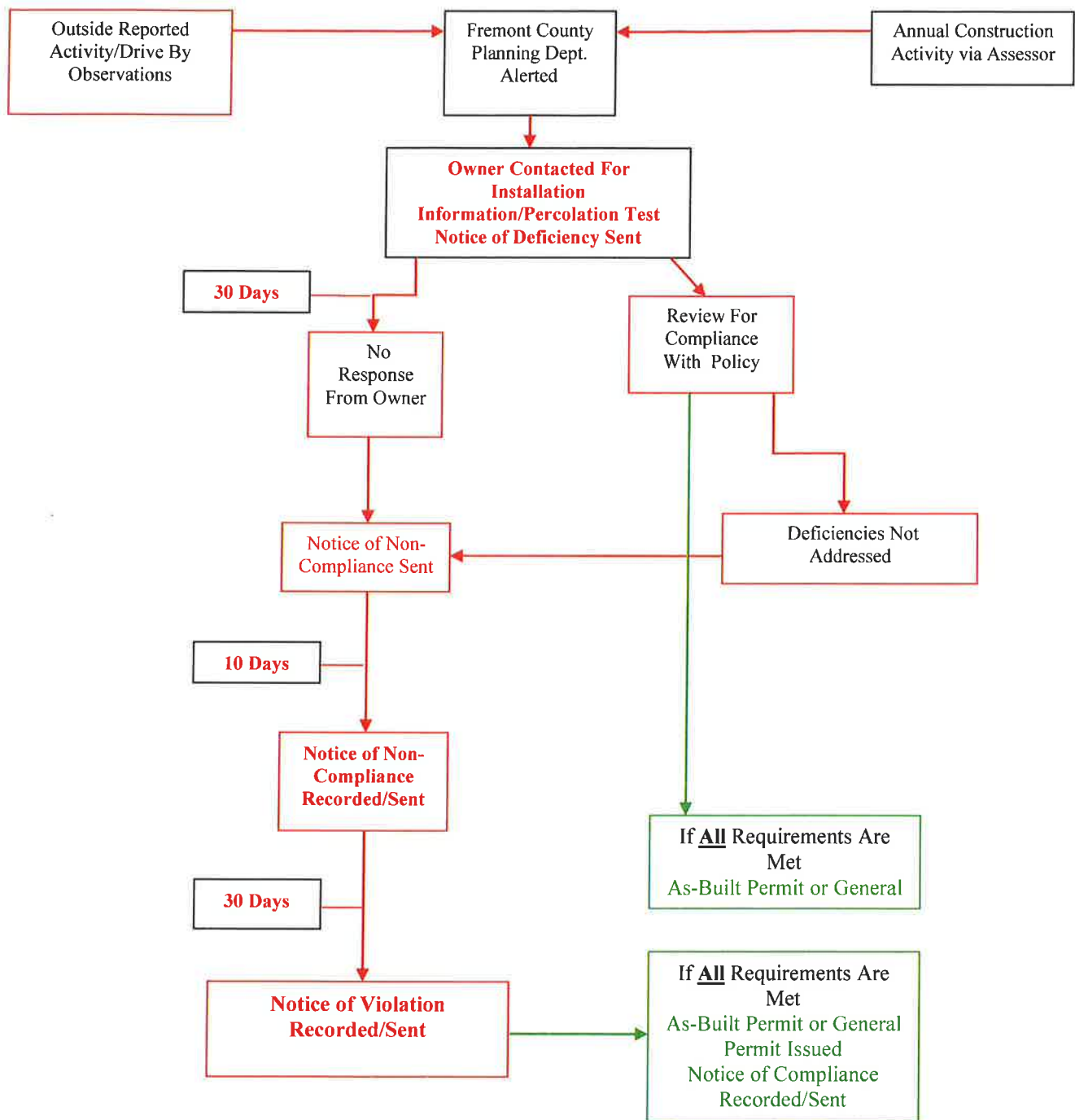


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Illegal Installation Process



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