

Teton County Small Wastewater Facility Regulations

Teton County Engineering Department

DATE*

Part 1

Introduction and Organization

Introduction

These regulations govern the permitting of Small Wastewater Systems in Teton County, Wyoming. They are based primarily upon two chapters of the Wyoming Department of Environmental Quality's Water Quality Rules:

CHAPTER 3 REGULATIONS FOR PERMIT TO CONSTRUCT, INSTALL OR MODIFY PUBLIC WATER SUPPLIES, WASTEWATER FACILITIES, DISPOSAL SYSTEMS, BIOSOLIDS MANAGEMENT FACILITIES, TREATED WASTEWATER REUSE SYSTEMS AND OTHER FACILITIES CAPABLE OF CAUSING OR CONTRIBUTING TO POLLUTION

and

CHAPTER 25 SEPTIC TANKS, SOIL ABSORPTION SYSTEMS, AND OTHER SMALL WASTEWATER SYSTEMS

The structure of this SWF regulation has been arranged so that Part 2: Permit Administration is an adaptation of Chapter 3, tailored for use in Teton County, and covering the administrative elements of the permit system. Part 3: Technical Standards is an adaptation of Chapter 25, suited toward conditions in Teton County, and predominantly covering the technical design and construction aspects of small wastewater systems.

In basing these regulations on corresponding State standards, it is intended that familiarity with WYDEQ regulations will expedite understanding and facilitate compliance.

List of Acronyms and Abbreviations

WYDEQ—Wyoming Department of Environmental Quality

WQD—Water Quality Division of the WYDEQ

WQRR—Water Quality Rules and Regulations of the WYDEQ

BCC—Teton County Board of County Commissioners

SWF—Small Wastewater Facility

GPM—Gallons per minute

W.S.—Wyoming State Statute

§--Section

PE—Professional Engineer licensed in Wyoming

UIC—Underground Injection Control

PWS—Public Water System

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PART 2

Permit Administration

Section 1 Authority

Pursuant to the Wyoming Environmental Quality Act, specifically W.S. 35-11-301, which stipulates that no person, except when permit authorized, shall construct, install, modify or operate any public water supply, sewerage system, treatment works, disposal system or other facility, excluding uranium mill tailing facilities, capable of causing or contributing to pollution, except that no permit to operate shall be required for any publicly owned or controlled sewerage system, treatment works, disposal system or public water supply. W.S. 35-11-304 stipulates that to the extent requested, authority to enforce and administer W.S. 35-11-301 (a) (iii) and (v) shall be delegated to qualifying municipalities, water and sewer district or counties. Delegation of authority is limited to small wastewater facilities, publicly owned or controlled non-discharging treatment works, sewerage systems and public water supply distribution systems.

These regulations are an integral component of the delegation agreement in effect between the Teton County Board of County Commissioners, and the Director of the Wyoming Department of Environmental Quality. According to statute, these regulations may not be less stringent in effect than the corresponding WYDEQ regulations.

Section 2 Applicability

(a) These regulations shall apply to all Small Wastewater Facilities capable of causing or contributing to pollution, that are constructed, modified, or operated within the boundaries of Teton County, Wyoming.

(b) Initial emergency response activities to stop and contain a release that enters or threatens to enter waters of the state or presents an immediate threat to human health, safety or the environment, will not require a permit under this chapter if prompt notification to the Teton County Engineering Department is given following the start of the response activities. A permit may still be required promptly after emergency response actions have achieved initial stabilization or containment.

Section 3 Timing of Compliance with These Regulations

Small Wastewater Facility Permit applications submitted after the effective date of these regulations shall be processed and evaluated according to these regulations. Small Wastewater Facility permits issued according to these regulations shall remain subject to them. Small Wastewater Facility permits applications that were submitted, and permits issued prior to the effective date of these regulations shall continue to be subject to the previous regulations in force at that time. The effective date of these regulations shall be determined by the Teton County Board of County Commissioners at the time of adoption.

Section 4 Intent

The fundamental objective of these regulations is to safely handle, treat, and dispose of human wastes and domestic wastewater in a manner that protects the life, health, and safety of persons from the risks that are known to arise from direct or indirect exposure to such wastes and wastewaters. As a complementary objective, it is recognized that the preservation and restoration of the natural environment is integral to long-term human welfare, and therefore the prevention of environmental pollution from the handling and disposal of human wastes and wastewater is essential.

Section 5 Prohibitions

No person, except when authorized by permit issued pursuant to these regulations, shall:

- (a) Construct, install, or modify any small wastewater facility capable of causing or contributing to pollution;
- (b) Construct, install, or modify any facility in non-compliance with the terms and conditions of an issued permit;
- (c) Construct, install, or modify a facility with a permit that has expired or has been suspended or revoked;
- (d) Discharge wastes into an exempted or permitted treatment works, sewerage or

disposal system which are inconsistent with the type or quantity of wastes for which the facility is designed.

Section 6 **Permit Compliance**

(a) Permittees authorized by a permit shall remain subject to compliance for all actions or inaction in connection with the permit, regardless of other contractual arrangements, agency, or obligations they may enter or accept.

(b) Construction, installation, or modification of facilities shall be allowed only in accordance with the terms and conditions of permits issued pursuant to the provisions of these regulations.

(c) No construction, installation or modification of a small wastewater facility capable of causing or contributing to pollution shall be allowed unless a permit to construct, install or modify has been obtained, or the facility is permitted by rule and the proper notification has been received and acknowledged by the sanitarian.

(d) The issuance of a permit 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.

Section 7 Permit Application Requirements

The following procedures will be followed in applying for a permit:

- (a) Any person who proposes to construct, install or modify a facility requiring a permit according to these regulations shall submit an application on forms provided by the Teton County Engineering Department. The information indicated on the form must be furnished by the applicant completely to qualify for processing by the sanitarian.
- (b) Applications for permits shall contain the following information in addition to the completed forms:
 - (i) Plans, specifications, design data, performance testing, operation and maintenance (O & M) manual, site investigation and supporting material, and other pertinent information covering the project, and any additional information required by the sanitarian. In instances where an environmental monitoring program is required as determined by the sanitarian, the application shall also include a proposed monitoring program to satisfy the requirements of Section 15;
 - (ii) All plans, specifications and reports submitted under this chapter shall be sealed, signed, and dated by a licensed professional engineer under W.S. Title 33, Chapter 29;
 - (iii) All plans and specifications must conform to common and accepted engineering practices as determined by the sanitarian. Plans and specifications must be presented so that they clearly and thoroughly inform the installation, and indicate when the Engineer must be contacted.

Section 8 Application Processing Procedures

- (a) All permit applications will be processed in the following manner:
 - (i) The sanitarian shall review each application or resubmittal within 45 days from the date the application or resubmittal is received.
 - (ii) Incomplete applications will be processed in the following manner:
 - (A) Additional information shall be requested to allow the review to determine compliance with regulations, or the application may be returned to the applicant entirely, depending on the degree of insufficiency. Incomplete permit applications that are not made complete after notification will result in permit denial;
 - (B) If an application is rejected because of incompleteness necessitating a request for additional information, the applicant shall have a maximum of six months to comply with the request. If the applicant fails to provide the requested information within that period, the entire incomplete application shall be administratively withdrawn from the county permitting process; no refund of applications fees will be given.
 - (C) Resubmittal of information by an applicant on an incomplete

application will be processed as described in this section.

(iii) All plans and specifications must meet or exceed minimum design standards and these regulations. Applications for modification of existing facilities permitted by the division to increase capacity to treat, hold, or dispose of wastes may be approved requiring only the modification to meet minimum design standards if the existing facility is not in violation of applicable regulations. Facilities not in compliance will require modifications to other portions of the facility to bring the facility into compliance with applicable regulations. Other modifications will be allowed if minimum standards for the modification are met.

(iv) Each application must be submitted with all supporting data necessary for review.

(v) The sanitarian shall promptly notify the applicant of all formal actions taken on the application. Notification shall be made to the applicant listed on the application form, who shall be the owner of the property or an agent acting on his behalf. Notifications may be attempted using email, phone, or similar convenience, and according to the contact given on the application form. The sanitarian shall provide notification by registered or certified USPS mail in the absence of acknowledgement following other attempts.

(vi) The sanitarian may contact the design engineer directly to discuss or clarify technical matters or indicate insufficiencies in the design submittal. Contact with the design engineer shall not be made in lieu of formal notification to the applicant.

(vii) If the conditions of the permit are different from the proposed application submitted by the applicant for review, the notification shall include reasons for the changes made.

(viii) If, upon review of an application, the Sanitarian determines that a permit is not required under the Teton County Small Wastewater Facility Regulations, the sanitarian will notify the applicant of this determination. Such notification shall constitute final action on the application. Whether a permit is determined to be required or not, any installation or alteration of a wastewater facility shall be in conformance to applicable standards of these regulations.

(ix) If upon review of an application, the sanitarian determines that a permit should not be granted, the sanitarian shall notify the applicant of the permit denial and state the reasons for denial.

(x) If the applicant is dissatisfied with the conditions imposed upon or denial of any permit decided by the Sanitarian, the applicant may request a hearing in accordance with Section 12.

Section 9 Construction and Operation in Compliance with Issued Permit.

The permittee shall:

(a) Conduct all construction, installation, or modification of any facility permitted

consistent with the terms and conditions of the permit. Unauthorized changes, deviations or modifications will be a violation of the permit. A new application or amended application must be filed with the sanitarian to obtain modification of a permit. No modification shall be implemented until a new or modified permit has been issued or a waiver given pursuant to subsection b;

(b) Request in writing authorization to utilize materials and/or construction different from those specified in the terms of the issued permit or make other adjustments to accommodate unanticipated conditions discovered after permit issuance. Such requests shall be directed to the sanitarian. A waiver may be granted if materials and/or construction specified in the permit cannot feasibly be obtained or accomplished and alternative materials and procedures meet minimum standards. Requests for waiver must demonstrate that the deviation is necessary for installation and does not interfere or compromise the function of the system. In order to prevent undue delay during construction, the administrator may grant a waiver verbally, upon request, provided that this request is followed by a written request within five (5) days;

(c) Conduct the operation in accordance with statements, representations, and procedures presented in the complete application and supporting documents, and permit conditions issued on the permit;

- (d) Retain the service of the Design Engineer during installation
- i. The design engineer shall remain connected to the installation and associated site construction sufficiently that he may determine the installation is proceeding according to the permitted design and specifications, and accommodate his certification of construction according to the design.
 - ii. Prior to, or coinciding with Final Inspection of the installation by the Sanitarian, the design engineer shall Certify that the installation of the small wastewater system conforms to the approved design.. The certification shall document that that the engineer has sufficiently verified installation of the system to reasonably conclude it will operate as intended by the design.
 - iii. The permittee may retain a substitute Engineer to replace the design engineer. The substitute engineer must understand and accept the permitted design to serve in this role. If a substitute engineer is retained who does not understand or accept the permitted design, then an application for modification of the facility may be submitted reflecting his design.

Section 10 **Duration and Termination of Permits; Transfer of Permits**

(a) The duration of construction, installation, or modification may vary, but shall not exceed five (5) years from the date of issuance. The expiration date for construction, installation or modification will be recorded on each permit issued. Those permits issued without a specified expiration date will be in force no more than five (3) years from date of issuance.

(b) Permits will be issued only to the owner of record, as filed with the Teton County Clerk.

(c) A transfer of ownership of the permitted property shall require notice to the Sanitarian requesting permit transfer. Once contact information for the new owner s received, and the permit conditions are acknowledged by the new owner, the permit shall transfer to the new owner.

(d) Any conditions imposed on construction, installation, modification or operation with an issued permit will be automatically transferred to the new owner whenever a transfer of ownership of the facility occurs.

(e) Coverage for facilities permitted by rule shall extend until the facility is properly closed or until a notice is provided that coverage is denied, revoked or issued pursuant to another section under this chapter.

Section 11 **Renewal of a Permit**

A permit may be renewed where construction has not been completed prior to the expiration date set at permit issuance by filing a notice with the Sanitarian stating that there will not be any changes in the plans for construction, installation, or modification of a permitted facility, and showing good cause for the failure to complete the permitted installation. If the renewal is not granted, a new application must be submitted to permit the facility.

Section 12 **Denial of a Permit**

(a) The sanitarian may deny a permit for any of the following reasons:

(i) The application is incomplete or does not meet applicable minimum design, construction, treated wastewater reuse, or land application standards as specified by these regulations;

(ii) The project, if constructed, is reasonably expected to cause a violation of applicable state surface or groundwater standards;

(iii) The project does not comply with applicable state and local water quality management plans as specified in Section 16;

(iv) The project, if constructed, would result in hydraulic and/or organic overloading of existing or proposed wastewater facilities,

(v) The proposed facility will serve a structure that is within five hundred lineal feet of an existing sewer collection system that will accept to serve that structure and necessary easements for the connection is legally obtainable, and ;

(vi) Other justifiable reasons necessary to carry out the provisions of these regulations.

(b) Except for denial based upon incompleteness of an application, if the sanitarian proposes to deny issuance of a permit, the applicant may be notified by registered or certified mail of the intent to deny and the reason for denial.

(c) After an applicant has been informed of the intent to deny a permit and reasons for that denial, the applicant shall have the opportunity to amend the application to bring the proposed facility into compliance with these regulations, or address the outstanding deficiency.

(d) In the case of denial of a permit by the sanitarian, the applicant, may request a

hearing before the Teton County Board of County Commissioners. Any appeal hearing held shall be conducted pursuant to the policies of the BCC.

Section 13 **Modification of a Permit**

Either before the permitted activity is completed or during the review of the permit application, the sanitarian may, for good cause, modify a permit.

(a) **Modification of permits**

(i) When reviewing a permit application or before the permitted activity is completed, the sanitarian may modify a permit due to the following reasons:

(A) Existing, unknown or changing site conditions that would prevent compliance with applicable regulations; or

(B) Receipt of additional information; or

(C) Any other reason necessary to effectuate applicable statutes, standards or regulations.

(ii) The sanitarian may notify the permittee by registered or certified mail, as necessary in the absence of acknowledgement, of intent to modify the permit.

(iii) Such notification shall include the proposed modification and the reasons for modification and time frame to have modifications constructed, installed or operational. Modification requirements shall be implemented before construction, installation, or modification of a facility is completed.

(iv) A copy of the modified permit shall be forwarded to the permittee as soon as the modification becomes effective.

Section 14 **Suspension or Revocation of a Permit**

The sanitarian may suspend or revoke a permit before construction, installation or modification of a facility is completed for the reasons set forth below, in item (b).

(a) Before a permit may be suspended or revoked, the permittee shall be given an opportunity to show compliance with all lawful requirements for the retention of the permit.

(b) The sanitarian may notify the permittee by registered or certified mail when acknowledgment is not received, of his intent to suspend or revoke the permit in the event that it becomes necessary due to:

(i) Noncompliance with the terms of the permit; or

(ii) Unapproved modifications in design or construction; or

- (iii) False information submitted in the application; or
 - (iv) Changing site conditions which would result in violations of applicable regulations; or
 - (v) Noncompliance with requirements of state and local water quality management plans; or
 - (vi) Any other reason necessary to effectuate applicable statutes, standards or regulations.
- (c) The notification shall include the reasons for suspension or revocation.
- (d) The suspension or revocation shall become final 20 days from the date of receipt of such notice unless within that time the permittee requests a hearing to appeal before the Board of County Commissioners. Such a request for hearing shall be made in writing to the administrator and shall state the grounds for the request. Any appeal hearing held shall be conducted pursuant to the policies of the BCC.

Section 15 **Environmental Monitoring Program; Permit Application Requirements**

When determined necessary by the Sanitarian or to comply with a State and Local Water Quality Management Plan, applications for a permit shall contain the following:

- (a) A monitoring program, as determined by the sanitarian to carry out the provisions of these regulations, shall consist of any or all of the following:
- (i) Operational monitoring;
 - (ii) Post-discharge or post-operational monitoring;
 - (iii) Record keeping and reporting.
 - (iv) The execution of an agreement or affidavit and recording of same with the Teton County Clerk that secures that the owner and subsequent owners comply with a monitoring program.
- (b) When required by the sanitarian, a monitoring program shall include plans for monitoring the quality of affected or potentially affected surface water and groundwater. The plans shall include the following as determined appropriate by the sanitarian to carry out the provisions of the act:
- (i) Stratigraphic and depth interval to be monitored by each well or sampling point;
 - (ii) Details of monitor well(s) construction or sampling location;
 - (iii) Details of how the monitoring program will be carried out, from preparation to site abandonment;

- (iv) Background water quality obtained from representative samples which characterize water quality and water quality variability for each monitor well;
 - (v) Background water quality for wells and surface water which might be impacted. This information will vary depending on site specifics based on geohydrology;
 - (vi) A description of how representative sampling will be accomplished;
 - (vii) Parameter list(s) and frequency of sampling after operation begins.
- (c) The permittee is responsible for properly installing, operating, maintaining and removing all necessary monitoring equipment.

Section 16 Compliance with State and Local Water Quality Management Plans

No permit may be issued for any facility which conflicts with a governmentally approved or pending water quality management plan. No permit will be issued for any facility which is in conflict with a Department of Environmental Quality approved wellhead protection or source water protection plan. No permit will be issued, or remain issued, when it conflicts with a water quality management plan approved or adopted by Teton County. The terms of such water quality management plans shall be interpreted broadly to ensure that protection is afforded to meet their intent in the restrictions that shall apply to small wastewater facility permitting.

Part III

Technical Standards

Section 17 **Definitions**

- (a) “Public water supply” means a system for the provision to the public of water for human consumption through pipes or constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals. A public water supply includes the source, treatment system, waste disposal system, distribution system, service connections, finished water storage and pumping stations.
- “Small wastewater facility” means 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. This shall include wastewater lift stations and appurtenances, or other wastewater systems that consist of more than simply a building sewer as defined in this section.
 - (b)
 - (c) “**100 year floodplain**” means 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 Federal Emergency Management Agency (FEMA).
 - (d) “**Absorption surface**” means the interface where treated effluent infiltrates into native or fill soil.

- (e) **“Bed”** means a soil treatment and dispersal system where the width is greater than three (3) feet.
- (f) **“Bedrock”** means 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.
- (g) **“Bedroom”** any portion of a dwelling which is so designed as to provide reasonable isolation necessary for use as a regular sleeping area. It may include, but is not limited to, a den, study, office, sewing room, sleeping loft, or enclosed porch. Unfinished basements shall be counted as a minimum of one additional bedroom.. This definition need not coincide with that from the Building Department, nor real estate custom.
- (h) **“Blackwater”** means water containing fecal matter and/or urine.
- (i) **“Board”** means the Teton County Board of County Commissioners.
- (j) **“Five day biochemical oxygen demand (BOD5)”** means a measurement of the dissolved oxygen used by microorganisms in the biochemical oxidation of organic matter during a five (5) day period.
- (k) **“Building sewer”** means the pipe that carries raw wastewater from the building. A building sewer by itself is not considered a small wastewater facility. A building sewer which serves a single building, does not have an exterior lift station, and connects to a permitted sewage collection facility is exempt from these regulations if in compliance with the rules of the corresponding sewage collection facility operator.
- (l) **“Chamber”** means a domed open bottom structure that is used in lieu of perforated distribution pipe and gravel media.
- (m) **“Direct human consumption food crops”** are crops consumed directly by humans. These include but are not limited to fruits, vegetables, and grains grown for human consumption.
- (n) **“Distribution Box”** means a water-tight structure which receives liquid effluent from a septic tank and distributes such effluent in equal portions into two or more pipes leading to the disposal area.
- (o) **“Domestic wastewater”** means a combination of the liquid or water-carried wastes from residences, business buildings, institutions, and other establishments arising from normal living activities.
- (p) **“Domestic septage”** means 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.
- (q) **“Dosing tank”** means a tank equipped with an automatic siphon or pump designed to discharge effluent on an intermittent basis to a subsurface absorption system.
- (r) **“Effluent”** means liquid flowing out of a septic tank, other treatment vessel, or system.
- (s) **“Effluent filter”** means 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 soil absorption system or other downstream treatment components.

(t) **“Evapotranspiration”** means the combined loss of water from soil by evaporation from the soil or water surface and by transpiration from plants.

(u) **“Greywater”** means untreated wastewater that has not been contaminated by any 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, washbasins, clothes washing machines (unless soiled diapers are serviced), laundry tubs, and kitchen sinks (where disposal grinders are not used).

(v) **“Grease interceptor”** means a device designed to separate fats, oils, and grease from wastewater.

(w) **“Groundwater”** means subsurface water that fills available openings in rock or soil materials such that they may be considered water saturated under hydrostatic pressure.

(x) **“High groundwater”** means seasonally or periodically elevated levels of groundwater, particularly when such groundwater may significantly interfere with the effective treatment or operation of a soil adsorption system

(y) **“High strength wastewater”** means a wastewater stream with a BOD5 higher than 200 mg/L.

(z) **“Holding tank”** means a watertight receptacle designed to receive and store wastewater.

(aa) **“Manifold”** means a non-perforated pipe that distributes effluent to individual distribution pipes.

(bb) **“Mound system”** means 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.

(cc) **“Mulch basin”** means an excavated area that has been refilled with a highly permeable media, organic and inorganic materials intended to distribute greywater to irrigate vegetation.

(aa) **“Pathogens”** are disease-causing organisms. These include, but are not limited to certain bacteria, protozoa, viruses, and viable helminth ova.

(bb) **“Percolation rate”** means the time expressed in minutes per inch required for water to seep into saturated soil at a constant rate.

(cc) **“Pipe invert”** means the bottom of the internal surface of the pipe.

(dd) **“Percolation test”** means the method used to measure the percolation rate of water into soil as described in Appendix A.

(ee) **“Permit”** means written authorization issued by the Sanitarian which authorizes the permittee to construct, install, or modify the facilities as set forth in these regulations.

(ff)

(ee) **“Permit by rule”** means a system authorizing the construction, installation, modification, or operation of a facility provided the owner of the facility agrees to and meets the design, construction, operation, and notification standards of applicable regulations. Facilities that are subject to Permit by Rule shall only be those types specifically identified as such.

(ff) **“Pressure distribution”** means a network of pipes in which effluent is forced through orifices under pressure, thereby delivered to the receiving soils of the absorption system.

(gg) **“Restrictive layer”** means a nearly continuous layer that has one or more physical or chemical 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, and dense layers.

(hh) **“Sanitarian”** means the official designated by the BCC to oversee and administer Teton County’s small wastewater facility program, or his appointed designee, or the acting Sanitarian as appointed by the Teton County Engineer until such time as the Board appoints a new Sanitarian.

(hh) **“Septage”** means liquid or solid material removed from a waste treatment vessel that has received wastes from residences, business buildings, institutions, and other establishments.

(ii) **“Septic tank”** means a watertight tank designed and constructed to receive and treat raw wastewater

(jj) **“Serial distribution”** means a group of trenches arranged so that the total effective absorption area of one trench is used before liquid flows into the next trench.

(kk) **“Service provider”** means a person authorized and trained by a system manufacturer or their vendor to operate and maintain any proprietary system.

(kk2) **“Sewage collection facility”** means a sewerage system under the ownership and operational control of an entity, and authorized according to applicable WYDEQ rules and regulations, including pipelines, conduits, storm sewers, pumping stations, force mains, and all other construction, devices, appurtenances and facilities used for collection or conducting wastes to an ultimate point for treatment or disposal

(ll) **“Soil absorption system”** means a shallow, covered, excavation surface, or mound made in unsaturated soil into which wastewater effluent from the septic tank is discharged through distribution piping for application onto absorption surfaces through porous media or manufactured components.

(mm) **“Trench”** means an absorption surface with a width of three (3) feet or less.

(nn) **“UIC system”** means underground injection control facility that disposes wastes to the subsurface and requires a permit from the WYDEQ according to Chapter 27 of the WQRR. More particularly in this context, a UIC system shall mean any Domestic Subsurface Fluid Distribution Systems designed to Receive more than 2,000 gallons per day of domestic sewage with only primary treatment such as effluent from a septic tank. In addition, any facility injecting domestic sewage within any five (5) acres of land is a class 5E3 facility whenever multiple 5E facilities under one owner, operator, or common use, inject a

cumulative maximum peak design flow of more than 2,000 gallons per day of domestic sewage.

Section 18 Design Flows

The volume of wastewater shall be determined by one of the following:

- (a) Tables 1 and 2 provided in this section.
- (b) Metered water supply data from the facility.
- (c) Metered water supply data from another facility where similar water demands have been demonstrated.
- (d) A credible published estimate, such as an engineering textbook or regulation from other jurisdiction, for sources that are not well addressed herein and do not have adequate and representative existing records for the facility.

Table 1. Residential Design Flow Rates per Bedroom (gallons per day, gpd)¹

1 bedroom	150
2 bedrooms	280
3 bedrooms	390
4 bedrooms	470
5 bedrooms	550
6 bedrooms	630

¹An unfinished basement is considered two (2) additional bedrooms.

²The design flow shall be increased by eighty (80) gpd for each additional bedroom over six (6).

Table 2. Non-Residential Wastewater Design Flow Rates¹

Facility	Unit	Flow (gallons/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

¹Values shown in the above table are the typical flow rates from *Wastewater Engineering Treatment and Reuse*, Metcalf and Eddy, 2003.

Section 19 Systems Not Specifically Covered by These Standards

This section is provided to encourage new technology and equipment, allow for design which addresses site-specific constraints, and provides a process for evaluating and permitting designs that deviate from the standards. The proposed construction of facilities and processes not in compliance with the standards may be permitted provided that the facility, when constructed and operated, meets the intent of these regulations.

- (a) Each application for a permit shall include:
- (i) an engineering design report which explains why the proposed facility is favored over those covered by the standards
 - (ii) detailed construction plans that provide sufficient details to both evaluate the proposed facility and to accommodate a successful installation,
 - (iii) technical specifications for all piping, tanks, and equipment,
 - (iv) All of these documents shall have a suitable title showing the owner's name and the Wyoming registration number, seal, and signature of the design engineer.

(b) Each application for a permit to construct will be evaluated on a case-by-case basis. The application shall include at least one of the following:

(i) Data obtained from a full scale, comparable installation that demonstrates the acceptability of the design.

(ii) Data obtained from a pilot plant operated under the design condition for a sufficient length of time to demonstrate the acceptability of the design.

(iii) Standards or design and operation guidance published by other credible jurisdictions, including National, State, Province, or County health departments and environmental agencies. Applicability of these other standards and guidance must be considered and adjusted for appreciable differences in their respective site conditions and those in Teton County.

(iv) Data obtained from the theoretical evaluation of the design that demonstrates a reasonable probability the facility will meet the design objectives.

(v) An evaluation of the flexibility of making corrective changes to the constructed facility in the event it does not function as planned.

(c) If an applicant wishes to construct a pilot plant to provide data necessary to show the design will meet the purpose of the act, a permit to construct must be obtained.

(d) A permit issued under this section may be subject to ongoing operation, maintenance, or monitoring requirements that remain in effect for a period of years or indefinitely to assure that the intent of these regulations is met. An agreement or other relevant legal document may be required of the permittee to be filed by the Teton County Clerk as public record in evidence of acceptance by the owner and all subsequent owners of these ongoing requirements.

Section 20 Site Suitability

(a) Small wastewater systems must be located where the surface drainage is sufficient to allow proper operation of the small wastewater system. The design shall 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) Small wastewater systems shall not be located in areas that are subject to increased organic or nutrient loading, such as corrals, or heavily fertilized landscape or agriculture.

(c) Small wastewater systems shall not be located in areas subject to compaction after they are

constructed, such as vehicle or equipment storage or operation. Soil absorption systems may require suitable permanent markings to serve to identify their location to prevent accidental damage or compaction, as use of surrounding lands warrants.

(d) 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.

(e) 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.

(f) 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 demonstrated percolation rate of the soil is ten (10) minutes per inch or greater (10-60 mpi).

(g) 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 ¹
5	25%
6-45	20%
46-60	15%

¹ Flatter slopes may be required where the effluent surfaces downslope.

(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.

(iv) Deviations from these slope standards shall be evaluated according to section 21, and may require additional site investigation, characterization, analysis, and design, or specific permit conditions.

(h) Soil Exploration Pit and Percolation Tests

(i) Small Wastewater Facility permit applications shall require percolation testing of site soils, in addition to a soil exploration pit.

(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.

(iv) Records of subsurface conditions at nearby locations may be used to support proposed design if they provide pertinent, consistent, and credible documentation. Copies of records must be submitted with the permit application or be publicly available and sufficiently cited in the permit application.

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

Table 4. Minimum Horizontal Setbacks for Domestic Wastewater in Feet^{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 and 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, 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. 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.

(j) The setbacks listed above shall be maintained regardless of whether the feature of interested exists prior to or subsequent to the construction of the small wastewater facility. It shall be a violation of these rules to

construct any such feature of interest that encroaches into the applicable setback.

Section 21 Soil Absorption System Sizing

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

Table 5. Rates of Wastewater Application for Soil Absorption System Areas

Percolation Rate (mpi)	Loading Rate (gpd/ft ²)	Percolation Rate (mpi)	Loading Rate (gpd/ft ²)
5	0.80	21	0.45
6	0.75	22	0.44
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

(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 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

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 five (5) minutes 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.

Section 22 Building Sewer Pipes

Piping that conveys raw wastewater from buildings shall meet the following standards:

(a) 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.

(b) 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.

(c) Plain "Tee" fittings may not be used. Wye fittings or sweeping "clean-out" Tees must be to combine flows in the downstream direction.

(d) Sewer pipe shall not decrease in size flowing downstream.

(e) Sewer piping shall be aligned straight, with bends placed only when unavoidable.

(f) Building sewer pipes shall be laid at a consistent slope of 1/4 inch per foot minimum.

(g) Cleanouts shall be provided between the structure and the tank, at branch connections, every cumulative change in alignment greater than 22.5 degrees, and at least every 100 feet in straight runs.

(h) 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.

(i) 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.

Section 23 Septic Tanks and Other Treatment Tanks

(a) Applicability

(i) A permit is required to construct, modify, or replace the components described in this section unless the ownership or operation is by a WYDEQ-permitted wastewater collection or treatment system.

(b) Septic Tanks

(i) The function of a septic tank is to provide for gravity separation of wastewater constituents and for anaerobic biological treatment. No processes or additives are allowed in design, installation, or operation that interfere with the primary treatment of the influent.

(ii) Septic tanks shall be constructed of precast concrete. Tanks shall be watertight and fabricated to constitute an individual structure and shall be designed and constructed to withstand anticipated loads..

(A) Tanks that have joints or penetrations that are below the designed liquid level shall require a leakage test, where leakage has the potential to threaten water quality or compromise the structural integrity of the tank installation or operation.

(B) The leakage test shall be conducted according under the greatest anticipated hydraulic potential for the installation, and last for no less than 8 hours. A successful test must confirm leakage is no more than 5% of design flow.

(iii) 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 compacted sand, crushed stone, or gravel to the proper grade.

(A) Septic tanks shall not be buried deeper than the tank manufacturer's maximum rated cover for the tank. The minimum depth of soil cover over the top of the tank is six (6) inches.

(B) Lightweight materials may be used during backfill to accommodate the maximum fill depth, so long as they are intended for such buried use, and will not settle appreciably after placement.

(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.

(iv) 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 250 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.

(v) Configuration

(A) Single compartment septic tanks shall have a length to width

ratio of no less than two (2) to one (1), or be partitioned to protect against short circuiting flow.

(I) Tanks not meeting the above criteria shall be sized at two-times (2x) the standard sizing requirement.

(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.

(vi) 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:

(A) 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.

(B) 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.

(vii) An access opening shall be provided to each compartment and for each baffle of the septic tank for inspection and cleaning.

(A) The access opening(s) in the top of the tank shall have a minimum diameter of twenty (20) inches. Both inlet and outlet devices shall be accessible.

(B) Each access opening shall feature a riser that shall terminate no lower than six (6) inches below the ground surface.

- (C) Each access riser shall terminate with a cover that is designed to withstand loading from vehicle traffic, livestock or wildlife, as applicable.
- (D) Access riser covers terminating above grade shall have a tamper-resistant fastening device.
- (E) Finished grade around riser covers shall be sloped to drain away, and prevent ponding or flooding, or inflow to the riser.
- (F) Joints and connections between the tank lid, riser, and cover shall be water-tight.

(viii) Land application of domestic septage in remote areas may be permitted when meeting the conditions found in Appendix B.

(ix) An effluent filter with an opening of 1/8-inch or smaller shall be provided on the outlet of a septic tank, or prior to entry into a pump or siphon, unless a grinder pump is used in connection to a raw wastewater collection system.

(c) Dosing Tanks

(i) Dosing tanks shall meet the same material and installation requirements as septic tanks. Dosing tanks shall have a minimum 24-inch diameter access opening and it shall have a riser from the access opening to the ground surface. The following table shall be used to calculate the minimum size of the dosing tank:

Table 6. Dosing Tank Volume (gallons)

Average Design Flows (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. The alarm's signal shall be conspicuous to persons in their routine activities about the associated structures.

(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.

(d) 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. A riser shall be brought to ground surface from the access opening.

(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 may be used to receive and store liquid waste discharged from

Recreational vehicles, motor homes, boats, and similar vehicles that include sanitary facilities and contain a disinfectant to control odors.

(A) The stored liquid waste must be removed by septic pumper service and disposed in an approved facility

(B) The stored liquid waste may not be disposed in a subsurface adsorption system without pretreatment conforming to the operations guidelines approved with an SWF permit.

(iv) 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.

(v) The minimum liquid volume shall be the greater of 1,000 gallons or seven (7) days storage based upon flow rate determined from Section 5.

(vi) 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.

(e) Lift Stations

(i) Lift stations and similar wastewater pumping facilities must be sized according to the peak hourly flow of all fixtures to which they are connected.

(ii) Lift stations that propose to connect to community sewer collection system must provide evidence of approval for the connection from the owner/ operator of the community sewer collection system.

(iii) The discharge piping, valves, and connection fittings from a lift station to the collection system must be rated for 1.5 times the highest anticipated pumping pressure, and be constructed of materials rated by their manufacturers to be compatible with wastewater.

(iv) The installation of the discharge piping from the exterior of the lift station basin to the main must be leak free, as demonstrated by a pressure test.

(v) For connections to a community force main sewer, the lift station and discharge piping must include at least one check valve and one manual shut off valve that allows servicing of the check valve.

(vi) Potential for air/gas release and vacuum relief shall be addressed in the application where the installation has multiple high points.

(f) Grease Interceptors

(i) A commercial or institutional food preparation facility with a waste stream containing fat, oil, and grease (FOG) in excess of 25 mg/L shall install an exterior grease interceptor or a device approved by the delegated health department or county. Facilities that typically have waste streams high in FOG are, but not limited to, restaurants, cafeterias, slaughterhouses, and institutional kitchens.

(A) For applications for facilities that are typically anticipated to exceed the FOG criteria but are not proposing the installation of a Grease Interceptor, the permittee may be required to conduct monitoring to verify compliance.

(ii) Waste streams high in FOG shall be plumbed separately and directly to a grease interceptor prior to the waste treatment process.

(iii) Waste streams from sanitary facilities such as bathrooms, toilets, urinals, or other similar fixtures shall not be discharged into the grease interceptor. These sources must be connected at least four to six (4-6) feet downstream of the grease interceptor's discharge. The design shall prevent any backflow from the sanitary sources into the grease interceptor.

(iv) Only one source facility per grease interceptor shall be allowed.

(v) Grease interceptors shall be located so that they are easily accessible for inspection, cleaning, and removal of the collected wastes. The interceptor shall not be closer than fifteen (15) feet from the last discharging fixture and no further away than thirty-five (35) feet.

(vi) Grease interceptors shall have at least two (2) compartments with a 20-inch minimum diameter access opening for each compartment for cleanout. Each access opening shall have a riser brought to the surface and have a secured, sealed lid that is rated for any anticipated load. There shall be a means provided to sample the effluent.

(vii) There shall be no internal cleanout tees or bypasses.

(viii) The inlet and outlet of the grease interceptor shall be vented. The vent pipe shall be at least two (2) inches in diameter. The inlet and outlet vents shall not be interconnected.

(ix) The outlet pipe invert shall be no more than two (2) inches lower than the inlet invert.

(x) The dividing wall between compartments shall be the same height as the other walls and the cover should contact the top of the dividing wall. If the partition/dividing wall does not contact the cover, the outlet tee or baffle shall extend below the liquid level, 40-50% of the total liquid depth.

(xi) The effluent from each compartment shall be drawn from the bottom of a riser pipe that terminates at least eighteen (18) inches below the inlet pipe invert of that same compartment.

(xii) Grease interceptors shall be accessible during normal business hours without interrupting normal business operations.

(xiii) Grease interceptors shall be installed in accordance with the manufacturer's instructions and applicable requirements of this section. A copy of the manufacturer's instructions shall be submitted with every permit to construct application submitted to the Sanitarian.

(xiv) Grease interceptors shall be sized according to the following:

Kitchens (grease, garbage)

Number of meals per peak hour	X	Waste Flow rate*	X	Retention time**	X	Storage factor***	=	Interceptor size (liquid capacity)
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*Waste flow rate – see Table 2.

**Retention times

Kitchen waste:	
Dishwasher and/or disposal	2.5 hours

Single service kitchen:	
Single serving with disposal	1.5 hours

***Storage factors

Fully equipped commercial kitchen	8 hr. operation: 1 16 hr. operation: 2 24 hr. operation: 3
Single service kitchen:	1.5

(A) The minimum interceptor size (liquid capacity) shall be 750 gallons.

(g) Other Interceptors

(i) Interceptors are required for oil, grease, sand, and other substances harmful or hazardous to the building drainage system, or the small wastewater treatment system.

(A) Laundries

(I) Commercial laundries, laundromats, and dry-cleaners shall be equipped with an interceptor in order to reduce the quantity of lint and silt that enter the collection system.

(II) The system must be of adequate size and design to allow for cool-down of wastewater so that separation can be more readily achieved.

(III) The interceptor shall be installed with a wire basket or similar device. The wire basket or similar device shall be removable for cleaning and shall prevent passage into the drainage system of solids 1/2 inch (12.7 mm) or larger in size, such as string, rags, buttons, or other materials which are detrimental to the waste treatment system.

(IV) Sizing must be in accordance with the following formula:

Laundries (grease, lint, silt)

Total gallons per cycle	X	Cycles per hour	X	Retention time*	X	Storage factor**	=	Interceptor
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*Retention times

Institutional laundries	2.5 hours
Standard commercial laundry	2.0 hours
Light commercial laundry	1.5 hours

**Storage factors

8 hours of operation	1.0
12 or more hours of operation	1.5

(B) Car Washes

(I) Where automobiles are washed (including detail shops using hand-wash practices), separators shall have a minimum capacity of 1000 gallons for the first bay, with an additional 500 gallons of capacity for every other bay.

(II) Additionally, wash racks must be constructed to eliminate or minimize the impact of run-off from rain/storm events. Minimum requirements are roofed structures with at least two walls and appropriate grading to prevent storm water infiltration into the sanitary sewer.

(III) An effluent sampling point is required.

(h) Abandonment of Septic and Holding Tanks

The following is the procedure to abandon septic tanks and holding tanks when the system is upgraded, equipment replacement as necessary, or central sewer lines are made available.

(i) The abandoned tank shall 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.

(ii) Once the abandoned tank is empty, it shall be handled in one of the following ways:

(A) The tank shall be completely removed and properly disposed, and the excavation backfilled and compacted.

(B) The access covers can be removed; the bottom drilled or broken up sufficiently to drain; and the tank filled completely with native soil, pit run, or sand.

Section 24 Effluent Distribution Devices

Distribution boxes and flow divider tees are suitable for level or nearly level ground and are 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.

(a) Distribution Boxes

(i) The distribution box shall be installed on a level, stable base to prevent tilting or settling, and to minimize movement from frost heave.

(ii) Boxes shall be watertight and constructed of concrete or other durable material to withstand structural loading and chemical attack.

(iii) 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.

(iv) The box shall be protected against freezing.

(v) The box shall be installed and remain in a location that is accessible for uncovering to perform inspection and servicing. The box location shall be suitably identified.

(vi) Boxes shall have flow equalizers installed on each outflow.

(b) Flow divider tees may be used in place of distribution boxes. They shall be rated by the manufacturer and installed to promote even division of effluent.

(c) Drop boxes are suitable for sloping ground and are installed to achieve serial loading. The drop boxes shall meet the requirements in paragraphs (a)(i through v) of this section.

Section 25 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 dispersed and retained below the ground surface. The absorption surface accepts, treats, and disposes the wastewater as it percolates through the soil or porous media.

(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 or chambers are 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.

(vi) 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) Perforations shall be sized and configured to avoid clogging and promote even effluent distribution throughout the absorption area.

(C) 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 ½ inch and 2- ½ inches.

(D) Prior to backfilling, the aggregate shall be covered throughout with a woven/non-woven geotextile material or a three (3) inch layer of straw.

(E) 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.

(F) Maximum width of trench excavation is three (3) feet.

(G) 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.

(vii) Standard beds shall conform to the same pipe and aggregate requirements for trenches as found in subparagraphs (vi)(A through D) of this section. Standard beds shall also conform to the following:

(A) The soils shall have percolation rates greater than five (5) and less than sixty (60) minutes per inch (5-60 mpi).

(B) The bottom of the bed shall be level.

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(C) Distribution laterals within a bed must be spaced on not greater than six (6) feet centers.

(D) Beds must not be wider than twenty-five (25) feet if gravity distribution is used. Multiple beds must be separated by at least 50% of the widest bed width.

(E) Rubber tired vehicles must not be driven on the bottom surface of any bed excavation.

(viii) 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 or remain 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) Chambers shall be bear upon a firm soil foundation that will prevent settling during long-term operation. Imported granular fill may be required as native soils dictate.

(F) 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.

(G) 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.

(ix) Chambered beds shall conform to the same requirements for chambered trenches as found in subparagraphs (viii)(A through E) of this section. Aggregate, as specified in subparagraph (vi)(B) of this section, or native soil shall be used to fill the space between the chambers.

(x) Serial Sidehill Trench:

(A) A minimum of six (6) feet of undisturbed soil shall be maintained between adjacent trench or bed side walls.

(B) The bottom of each serial trench or bed system shall be level.

(C) 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.

Section 26 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. Where site elevations allow, the selection and installation of pressure distribution systems using sufficient hydraulic potential, such as siphons or similar devices, is recommended. Where pumping of effluent to the soil absorption area is required, a pressure distribution shall be required. 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 with a minimum residual distribution pressure of 24 inches of hydraulic head throughout the dosing cycle, measured at a point most distant from the pump. Pressure throughout the distribution area shall not vary by more than 10%. 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” level switch, a “pump on” level switch, and a liquid level “high alarm”.

(A) Teton County Electrical Permits must be separately obtained to cover any work that requires it. Compliance with National Electrical Code as administered by the Teton County Fire Department is a requirement of compliance for SWF permits. A qualified electrician shall be responsible for work on applicable portions of the system.

(B) All electrical connections must be made outside of the chamber in either an approved weatherproof box or an explosion-proof junction box.

(C) 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.

(D) All wires must be contained in solid conduit from the dosing chamber to the control box.

(iv) The pressure transport and distribution piping from the pump through the soil absorption system shall be designed to prevent freezing. The transport piping shall also be sized to promote self-cleaning velocity.

(A) Pressure piping and fittings shall be PVC or HDPE piping that is rated for no less than 1.5 times the highest anticipated pumping pressure, and is installed to provide leak-free integrity. No materials shall be used unless they are rated by their manufacturer for continuous exposure to domestic wastewater.

(B) 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. Manifolding of the lateral ends is allowed.

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(C) All joints in the manifold, lateral piping, and fittings shall be solvent-welded using the appropriate solvent welding chemicals for the pipe material. Pressure transport piping may be solvent-welded or flexible gasket jointed with appropriate restraints.

(D) HDPE piping shall be fused using electrofusion equipment produced for such work, and according to the instructions from the manufacturer.

(E) Where automatic siphons or other hydraulic potential devices are used, they shall be designed to empty the dosing tank in less than ten (10) minutes. The residual distribution head requirements from (a)(i) above shall also apply to dosing systems that do not use a pump.

(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.

Section 27 Sand Mound Systems

The sand mound consists of a sand fill, an aggregate bed or chambers containing pressure-dosed laterals, and a soil cap. Pressure dosing shall be according to the preceding Section 26.

(a) Selection Criteria:

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

(b) Site Requirements:

(i) 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. The rise in groundwater due to effluent loading shall be considered in meeting this standard.

(ii) 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) Sand mound systems must not be sited where they may allow effluent to surface.

(c) General Design Requirements:

(i) Sand Layer

(A) Filter sand shall conform to ASTM C-33, with less than two percent (2%) passing through the #200 sieve.

(B) The minimum depth of sand below the aggregate bed surface shall be one (1) foot.

(C) The total depth of fill sand, other suitable fill material, and native soils must provide at least 3 vertical feet of separation to seasonally high groundwater.

(D) The total depth of fill sand, other suitable fill material, and native soils must provide no less than 4 vertical feet of separation to the top of restrictive soil layers or bedrock.

(E) The top of the sand layer under the aggregate bed, or infiltrative surface which serves as the base for chambers, shall be level in all directions.

(F) The sand layer shall fill around the perimeter of and to the top of the aggregate bed.

(G) 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.

(H) The basal 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 corresponding to the measured percolation rate of in-situ soils.

(ii) Aggregate Bed

(A) 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 ½) inch.

(B) 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.

(C) Chambers may be used in place of an aggregate bed.

(D) The design shall be a long, narrow bed design with a maximum width of twenty-five (25) feet.

(E) The infiltrative surface, which is the bottom of the aggregate bed (top of the sand fill), shall be calculated by dividing the design flowrates (gpd) from Table 1 and Table 2 by the loading rate of 0.8 gpd/ft². No additional area reduction factor shall be allowed when chambers are used in place of the aggregate bed.

(iii) Soil Cover

(A) 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 twelve (12) inches. The slope of all sides shall be three (3) horizontal to one (1) vertical or flatter.

(B) A layer of topsoil 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.

Section 28 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 Section 7(g) of this rule, 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 9 of this rule shall be required before the 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) The influent line into the lagoon must discharge near the center.

(xiii) A cleanout, with a tightly fitting cap, shall be provided in the influent line near the dike.

(xiv) 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".

Section 29 Privies or Outhouses

Privies or outhouses that meet the requirements of this section are permitted by rule. A permit by rule requires the owner to submit the information contained in paragraph (g) of this section to the Teton County Sanitarian prior to constructing or installing the facility. By submission of the required information, the owner acknowledges and certifies they will comply with the requirements contained in this section.

Pre-fabricated privies or outhouses shall be sealed, water-tight vaults and shall meet the following conditions.

- (a) The horizontal setback distance requirements for sealed privies or outhouses shall comply with Section 7(g) for septic tanks.
- (b) The depth to seasonally high groundwater from the bottom of a water tight vault shall be sufficient to prevent floatation of the empty vault.
- (c) The vault must have sufficient capacity for the dwelling served, and must have at least 67 cubic feet or 500 gallons of capacity.
- (d) 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.
- (e) Privies or outhouses must be adequately vented.
- (f) Privies or outhouses shall not be constructed within the 100 year floodplain.
- (g) Privies or outhouses shall not have plumbing where the supplied water can enter the holding tank.
- (h) Owner's name, address, phone number, legal description of privy or outhouse (address, latitude/longitude, or ¼ ¼ section), and the date construction or installation will begin.

Section 30 Greywater Systems

Greywater systems provide an opportunity for greater siting and design flexibility by keeping separate the more heavily contaminated blackwater from modestly contaminated greywater. Greywater systems shall require an individual permit to construct, install, and modify. Greywater systems must demonstrate and maintain compliance with the intent of the Small Wastewater Facility Regulations.

- (a) Greywater Operation and Requirements
 - (i) Restrictions
 - (A) Greywater shall not leave the property on which it is generated. Ponding or runoff is prohibited.
 - (B) Greywater systems shall not be installed in a special flood hazard area.

(C) The volume of greywater shall not exceed an average of 2000 gallons per day.

(D) Greywater shall not come in direct contact with or adversely impact surface or groundwater.

(E) Food crops for direct human consumption should not be harvested for 30 days after application of greywater.

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

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

(b) Estimating Greywater Discharge

(i) The greywater discharge for single family and multi-family dwellings shall be calculated by estimates of greywater use based on water use records, or by using the standard design flows multiplied by 0.75 to subtract for toilet discharge, as applicable.

(c) Greywater System Configurations

(i) All greywater systems that are constructed and operated in parallel with a corresponding blackwater system shall have means to direct greywater to either the blackwater system or the greywater system.

(ii) Diverter valves shall not have the potential to allow backflow from the blackwater system into the greywater system.

(iii) The diverter valve shall be used during system operation whenever the disposal of blackwater wastes enter the greywater system. The diverter valve shall not be operated to direct regular greywater to the blackwater system on an ongoing basis.

(iv) Greywater used for surface irrigation should be disinfected. The disinfection should achieve a fecal coliform level of 200 cfu/100 mL or less.

(d) Black water systems

(i) Where greywater systems are intended to work in tandem with a corresponding black water system, the black water system shall be sized according to organic loading rather than hydraulic loading to the absorption system receiving soils.

(ii) Black water systems are permitted under the same rules as a typical (black and grey water combined) on-site small wastewater facility.

(e) Setbacks

(i) A 30 foot buffer zone is required between the greywater application site and adjacent property lines and any public right-of-way.

(ii) A 30 foot separation distance is required between greywater application sites and all surface waters.

(iii) A 100 foot separation distance is required between greywater application sites and all potable water supply wells.

Section 31 Operation and Maintenance

(a) An Operations and Maintenance (O & M) Manual shall be submitted as part of the permit application, prepared or adopted for such use by the design engineer. The O & M manual shall include:

- (i) An accurate location map of the major components of the small wastewater facility.
- (ii) A basic conceptual description of system components and their functions.
- (iii) A description of operational practices allowed, and those not allowed, and associated recommendations.
- (iv) A description of required maintenance, recommended time intervals for each maintenance procedure, and an indication of what qualifications are required for a person to perform each maintenance procedure.

(b) 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.

(c) Septic tanks shall be pumped as needed to prevent solids carryover into the soil absorption system.

(d) Holding tanks and sealed vaults shall be pumped prior to reaching their maximum capacity.

(e) Any service provider that pumps septic tanks, holding tanks, or sealed vaults, shall dispose of the collected wastes at a permitted wastewater treatment facility or in a manner approved by the WYDEQ.

(f) Damaged fittings and broken, crushed or plugged piping associated with any small wastewater system shall be replaced in a timely manner. Contact the Sanitarian to determine whether a repair permit is required.

(g) 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 WYDEQ.

Section 32 Commercial and Industrial Wastes and/or Domestic Wastes Greater Than 2000 Gallons per Day

According to the Delegation Agreement between Teton County and the Wyoming Department of Environmental Quality, wastewater systems designed for treatment and disposal of flows greater than 2000 gallons per day, or receiving industrial, commercial, or non-domestic wastes cannot be permitted by Teton County, and must be permitted directly by the WYDEQ. This shall apply to any cluster of separate systems under common ownership or within any 5-acre area.

This shall not apply to multiple lift stations that are connected to, and discharge only to an authorized community sewer collection and or disposal facility, so long as each facility is designed for flow less than 2000gpd.

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49 and is excessively permeable. The soil absorption system shall meet the requirements of Section
50 8 (c).

51

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

56

57 (d) Percolation Rate Measurement

58

59 (i) Fill each test hole with twelve (12) inches of water and allow the soil to
60 rehydrate for fifteen (15) minutes prior to any measurements.

61

62 (ii) Establish a fixed reference point to measure the incremental water level drop at
63 constant time intervals. The water level drop should be measured to the nearest $\frac{1}{8}$ of an inch and
64 the minimum time interval is ten (10) minutes.

65

66 (iii) Refill the test hole to twelve (12) inches above the gravel before starting the
67 measurements. Continue to measure the incremental water level drop at a constant time interval
68 until a consistent incremental water level drop is achieved. A consistent water level drop is
69 achieved when three (3) consecutive water level drops are within $\frac{1}{8}$ inches of each other.

70

71 (iv) Before the water level drops below one (1) inch above the gravel, refill the test
72 hole to twelve (12) inches and continue to measure the incremental water level drop.

73

74 (v) The percolation rate is calculated for each hole using the following formula:

75

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

76

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

81

82 (e) The following information shall be recorded:

83

84 (i) Date(s) of test(s);

85

86 (ii) Location, diameter, and depth of each test hole;

87

88 (iii) Duration of presoak;

89

90 (iv) Time of day for beginning and end of each water-level drop interval;

91

92 (v) Each water-level drop measurement;

93

94 (vi) Calculated percolation rate;

- 95 (vii) Name and signature of person performing test;
- 96
- 97 (viii) Name of owner or project name; and
- 98
- 99 (ix) Certification that the percolation test was done in accordance with Wyoming
- 100 Water Quality Rules and Regulations Chapter 25 Appendix A.
- 101

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102 **APPENDIX B Land Application of Domestic Septage in Remote**
103 **Areas**

104 **Section 1. Restrictions and Requirements**

105

106 To qualify for the land application of domestic septage in remote areas, the following
107 conditions must be met.

108

109 (a) Location restrictions:

110

111 (i) Domestic septage generated on a specific property may be land applied on said
112 property, and shall not be transported to another location for land application.

113

114 (ii) No land application of domestic septage shall occur within 1,000 feet of all
115 adjacent properties.

116

117 (iii) No land application of domestic septage shall occur within 300 feet of a public
118 road, permanent surface water body, or intermittent stream.

119

120 (b) Site restrictions:

121

122 (i) The land application of domestic septage shall only occur on those sites with
123 established vegetation such as rangeland, pasture or hay meadows.

124

125 (ii) No more than 5,000 gallons of domestic septage per acre per year shall be land
126 applied.

127

128 (iii) No land application of domestic septage shall occur where the site's slope
129 exceeds five percent (5%) or where the depth to groundwater is less than four (4) feet.

130

131 (iv) The land application of domestic septage shall not occur between November 1
132 and May 1, or any other time when frozen or saturated ground conditions exists.

133

134 (v) No public access shall be allowed to any site where domestic septage has been
135 applied for at least one (1) year following application.

136

137 (vi) No grazing animals shall be allowed access to any site where domestic septage
138 has been land applied for at least thirty (30) days following application.

139

140 (c) Crop restrictions:

141

142 (i) No root crops shall be harvested from soils where domestic septage has been
143 land applied for at least thirty-eight (38) months following application

144

145 (ii) No truck crops (harvested parts touch land surface) shall be harvested from
146 soils where domestic septage has been land applied for at least fourteen (14) months following
147 application.

148

149 (iii) No commodity crops (other food, feed, and fiber crops whose harvested parts
150 do not touch land surface) from soils where domestic septage has been land applied shall be
151 harvested for at least thirty (30) days following application.
152

153 (iv) No turf shall be harvested from soils where domestic septage has been land
154 applied for at least one (1) year following application.
155

156 (d) Reporting Requirements:
157

158 (i) The property owner shall notify the appropriate Department of Environmental
159 Quality, Water Quality Division (DEQ/WQD) District Engineer prior to the land application of
160 domestic septage to confirm the requirements and to arrange a possible DEQ/WQD inspection of
161 the land application.

162 (ii) All records related to each septage application will be maintained for at least
163 five (5) years.
164

165 (iii) There is a worksheet provided online at the Division's website that must be
completed, signed, and returned to the DEQ/WQD, or the appropriate delegated local permitting
authority, within 15 days of the land application.