

TETON COUNTY
SMALL WASTEWATER FACILITY REGULATIONS

Prepared by
Teton County Engineering Department

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ADOPTED:

Teton County Board of County Commissioners

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REGULATIONS FOR A PERMIT TO CONSTRUCT,
INSTALL OR MODIFY SMALL WASTEWATER
FACILITIES AND RELATED DESIGN STANDARDS

BOARD OF COUNTY COMMISSIONERS
TETON COUNTY, WYOMING

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

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

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

NOW THEREFORE BE IT RESOLVED:

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Appendix A - Percolation Test Procedure

SMALL WASTEWATER FACILITY RESOLUTION

TETON COUNTY REGULATIONS FOR A PERMIT TO CONSTRUCT, INSTALL OR MODIFY SMALL WASTEWATER FACILITIES AND RELATED DESIGN STANDARDS

SECTION 1. AUTHORITY

This regulation is promulgated pursuant to the Wyoming Environmental Quality Act, W.S. 35-11-101 through W.S. 35-11-1207. Specifically, W.S. 35-11-301 stipulates that no person, except when permit authorized, shall: construct, install, modify or operate any small wastewater facility. W.S. 35-11-304 stipulates that to the extent requested, authority to enforce and administer W.S. 35-11-301(a)(iii) shall be delegated to qualifying municipalities, water and sewer district or counties.

SECTION 2. PURPOSE

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

SECTION 3. APPLICABILITY

These regulations shall apply to all small wastewater systems as defined in Section 5 of these regulations within Teton County.

SECTION 4. INTENT

The design and construction standards included in these regulations are directed toward conventional small wastewater systems. These standards impose limiting values of design for which a construction, installation or modification permit application and plans and specifications can be evaluated by the County Sanitarian.

The terms "shall" and "must" are used when practice is sufficiently standardized to permit specific delineation of requirements or when safeguarding public health or protection of water quality justifies such definite action. Other terms, such as "should", "recommend", and "preferred" indicate desirable procedures or methods which allow deviations provided the purpose of these regulations can be accomplished.

Wherever County Sanitarian is used it shall mean County Sanitarian or his designated representative.

SECTION 5. DEFINITIONS

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

Absorption System, conventional – a system constructed under the surface of the ground which receives and distributes effluent from a pretreatment device effectively filtering the effluent through soil or media.

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

At-Grade System - an alternative type of onsite wastewater system where the bottom of the absorption system is placed at or below the elevation of the existing site grade, and the top of the distribution pipe is above the elevation of existing site grade, and the absorption system is contained within a fill body that extends above that grade.

Bedrock - the rock, usually solid, that underlies soil or other unconsolidated, superficial material.

Bedroom – any portion of a dwelling which is so designed as to furnish a minimum isolation necessary for use as a 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.

Building Drain – that part of the lowest piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls of the building and conveys it to the building sewer beginning 2 feet (.6 meters) outside the building wall.

Building Sewer – the building sewer is that part of the horizontal piping of a drainage system which extends from the end of the building drain and conveying it to the septic tank or other on-site sewage disposal facility.

Cesspool – a covered pit into which raw sewage is discharged for final disposal by leaching into the surrounding porous soil. Cesspools are not allowed under these regulations.

Distribution Box – 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.

Domestic Sewage – the liquid and water-borne wastes derived from the ordinary living processes, free from industrial wastes, and of such character as to permit satisfactory disposal without special treatment.

Dosing System – the system of tanks, pumps or siphons, and piping located between the septic tank and soil absorption system which is intended to apply a large quantity of settled wastewater to the absorption system in a short period of time.

Effluent Filter – a removable filter that is located in the septic tank outlet tee (baffle) or on the inlet of an effluent pump.

Greywater – untreated wastewater which has not come into contact with toilet waste. Greywater includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, sinks (including kitchen sinks), and laundry tubs, and does not include garage floor drains or other hazardous chemicals.

Ground Water, Perched – unconfined ground water separated from an underlying body of ground water by an unsaturated zone and is underlain by a restrictive strata or impervious layer.

Ground Water Level, Seasonal – the highest elevation reached by the ground water (usually spring or early summer). Irrigation influences may affect the duration and depth of the seasonal high ground water.

Gravel-less Chamber – a type of absorption system where the media consists of an open bottom, chamber structure of an approved material and design, which may be used as a substitute for the gravel media with a perforated distribution pipe.

Hydrogeological Study – a study of the occurrence, distribution, quality and movement of the shallowest groundwater of the state and the potential impact of wastewaters on the groundwater.

Impermeable Soil – any soil which has a percolation rate greater than 60 minutes per inch.

Mound System - an alternative onsite wastewater system where the bottom of the absorption system is placed above the elevation of the existing site grade, and the absorption system is contained in a mounded fill body above the grade.

Percolation Rate - the time expressed in minutes per inch required for water to seep into saturated soil at a constant rate during a percolation test.

Percolation Test - the method used to measure the percolation rate of water into soil as described in Appendix A. Percolation tests shall not be conducted in test holes which extend into groundwater, bedrock, or frozen ground.

Permeability - the rate at which a soil transmits water when saturated.

Permit – written authorization issued by the County Sanitarian, duly executed which authorizes the permittee to construct, install, or modify the facilities as set forth in these regulations.

Privy – a covered pit into which only urine and fecal material are discharged for final disposal by leaching into the surrounding soil or by hauling to an approved disposal site. Greywater or toilet carriage water may not be discharged into a privy.

Pump Tank – a tank in which the dosing pumps or siphons are installed.

Septic Tank – a liquid-tight receptacle which receives for storage and digestion, raw sewage from a building sewer, and which has been designed and constructed so as to retain the solids and to allow the liquids to discharge through a secondary system of piping into a disposal area.

Small Wastewater System – any sewerage system, disposal system or treatment works having simple hydrologic and engineering needs which is intended for domestic wastes with 2000 gallons or less of sewage per day.

Soil Profile Hole - an 8-foot deep excavation to allow examination of the soil to evaluate its suitability for absorption systems including but not limited to soil type, depth to bedrock or impermeable layer, and depth to groundwater.

Watercourse Protection District shall include—

1. All private lands within 150 feet of the top of each bank of the Snake, Gros Ventre, Hoback, and Buffalo Fork Rivers.
2. All private lands within 50 feet of the top of each bank of all other streams, creeks or irrigation ditches including any channelized section created to prevent bank erosion or to stabilize the watercourse, but not including ditches or canals created to contain irrigation waters.

SECTION 6. PROHIBITIONS

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

- A. Construct, install, or modify any small wastewater system.

- B. Construct, install, or modify any small wastewater system in non-compliance with the terms and conditions of an issued permit.
- C. Construct, install, or modify a small wastewater system with a permit that has expired or has been suspended or revoked.
- D. Discharge wastes into any small wastewater system which is inconsistent with the type and or quantity of wastes for which the facility is designed.
- E. Discharge wastes to surface waters or ground surface. Effluent from any onsite wastewater system shall not be discharged to surface waters or upon the surface of the ground. Effluent processed by an enhanced treatment system and disinfection may be dispersed by drip irrigation. Sewage shall not be discharged into any abandoned or unused well, or into any crevice, sinkhole, or similar opening, either natural or artificial.

SECTION 7. PERMIT REQUIRED; CONTROL OF CONSTRUCTION, INSTALLATION AND MODIFICATION PERMITS; RESPONSIBILITY ON ISSUED PERMITS; EXEMPTIONS

- A. Construction, installation, or modification of small wastewater facilities shall be allowed only in accordance with the terms and conditions of permits issued pursuant to the provisions of these regulations.
- B. No construction, installation or modification of a small wastewater system shall be allowed unless a permit to construct, install or modify has been obtained from the County Sanitarian.
- C. The issuance of a permit to construct does not relieve the permittee of its responsibility to properly plan, design, construct, operate and maintain the facility described in the application and permit conditions.

SECTION 8. 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 required to be permitted under Section 6 shall submit a written application on forms provided by the County Sanitarian.
- B. The applications for a permit to construct, install or modify must be accompanied by plans, specifications, design data or other pertinent information covering the project, and any additional information required by the County Sanitarian.
- C. All plans and specifications must conform to common engineering practices and include

the following:

1. Plans for small wastewater systems shall contain the following:
 - a. A title showing the name of the owner and the location of the project; a north arrow and drawing scale; and the name and seal or signature of the designing engineer (except on the plans for a single residential unit designed by the owner).
 - b. Datum used shall be indicated.
 - c. A site plan showing topography of the site, boundaries of the project and property nearby wells and waterlines, waterways, buildings, septic tank and drainfield, existing and proposed water features, including all dimensions and isolation distances.
 - d. Detailed drawings both plan and cross-section of septic tank and disposal field.
 - e. Location of percolation test holes and soil test pit(s).
 - f. Percolation test data.
2. Specifications for small wastewater systems shall include the following:
 - a. The identification of the type, size and strength of construction materials.
 - b. The type, size, strength, operating characteristics, rating or requirements and installation procedures for all mechanical and electrical equipment.

D. All the plans and specifications must conform to the minimum design standards identified in Sections 17 through 31.

SECTION 9. APPLICATION PROCESSING PROCEDURES

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

- A. The County Sanitarian shall review each application and take final action within 15 days from the date the application is received.
- B. Incomplete applications will not be processed. The County Sanitarian shall promptly notify the applicant of the deficiencies in the submitted permit application package.

- C. All plans and specifications must meet or exceed minimum design standards and these regulations.
- D. Applications for a modification of an existing permitted facility to increase the capability to treat, hold, or dispose of wastes may be approved requiring only the modification needed to meet the minimum design standards. Facilities not in compliance with these regulations will require additional modifications to other portions of the facility to bring the facility into compliance with these regulations.
- E. Each application must be submitted with all supporting data necessary for review. Processing of the application with respect to recommendations or required changes will be done in accordance with the provisions or required changes will be done in accordance with the provisions of applicable statutes, rules and regulations.
- F. The County Sanitarian shall promptly notify the applicant of the final action taken on the application. 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.
- G. If, upon review of an application, the County Sanitarian determines that a permit is not required, the County Sanitarian shall notify the applicant of this determination. Such notification shall constitute final action on the application.
- H. If, upon review of an application, the County Sanitarian determines that a permit should not be granted, the County Sanitarian shall notify the applicant the permit denial and state the reasons for denial.
- I. If the applicant is dissatisfied with the permit conditions or denial of any permit issued by the County Sanitarian, he may request a hearing in accordance with Section 13.c.
- J. Alternative systems shall be designed by a Wyoming Professional Engineer knowledgeable in the design of waste water treatment systems. Three copies of the stamped drawings and specifications are required by Teton County to process the application. If required, the applicant shall send a fourth copy directly to the WDEQ for joint review.

SECTION 10. 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 County 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 authorization to utilize materials and/or procedures different from those specified in the terms of the issued permit. Such requests shall be directed to the County Sanitarian. A waiver may be granted if materials and/or procedures specified in the permit cannot be obtained or accomplished and alternative materials and procedures meet minimum standards. In order to prevent undue delay during construction, the County Sanitarian may grant a waiver orally, upon oral request, provided that this oral request is followed by a written request within five days. Any changes shall be noted on the permit.
- C. Conduct the operation in accordance with statements, representations, and procedures presented in the complete application and supporting documents, as accepted and authorized by the County Sanitarian.
- D. Notify the County Sanitarian at least 24 hours prior to backfilling of system. The County Sanitarian will perform a final inspection of the installation to ensure compliance with these regulations. The compliance section of the permit will then be signed. If the applicant does not notify the County Sanitarian the following actions may be taken or required by the County Sanitarian:
 - 1. digging up the system to show compliance with these regulations;
 - 2. revocation of the permit;
 - 3. legal action; or
 - 4. all of the above.
- E. Small Wastewater Facility Permit applications prepared by a Wyoming Professional Engineer shall require inspection and certification of completion as per the approved plans and specifications. The certification shall be provided to the County Sanitarian within two weeks of the final inspection.

SECTION 11. DURATION AND TERMINATION OF PERMITS, TRANSFER OF PERMITS

- A. The duration of construction, installation or modification permits will be variable, but shall not exceed one year from the date of issuance. The expiration date will be recorded on each permit issued. Those permits issued without a specified expiration date will be in force no more than one year from date of issuance.
- B. Permits will be issued only to the official applicant of record, who must be the owner of

the permitted facility or his designated agent. A statement authorizing the applicant to act as agent for owner must accompany the application. The permit will be issued to the owner for only the type of construction of record and shall be automatically terminated:

1. Within 60 days after sale or exchange of the facility unless application for transfer is received pursuant to Subsection (c) of this section.
 2. When construction is completed. Except that conditions included in the permit will remain in effect throughout the life of the facility.
 3. Upon issuance of a new, renewed or modified permit.
 4. Upon written request of the permittee.
- C. Permits shall be transferred to new owners by the submittal as a written request from the new owner to the County Sanitarian. The County Sanitarian shall act within 15 days after receipt of the request.
- D. Any conditions established in a construction, installation or modification permit will be automatically transferred to the new owner whenever a transfer of ownership of the facility occurs.

SECTION 12. RENEWAL OF A PERMIT

A permit may be renewed where construction has not been completed by contacting the County Sanitarian stating that there will not be any changes in the plans for construction, installation, or modification of a permitted facility no less than 30 days prior to the expiration date of the permit. A renewal fee is required.

SECTION 13. DENIAL OF A PERMIT

- A. The County Sanitarian may deny a permit for any of the following reasons:
1. The application is incomplete or does not meet applicable minimum design and construction standards as specified in these regulations.
 2. The project, if constructed, will cause violation of applicable state surface or groundwater standards.
 3. The project does not comply with applicable state and local water quality management plans as specified in Section 16 of these regulations.
 4. No new small wastewater system shall be approved for a building to

which connection to a sanitary sewer is required by the Teton County Land Development Regulations.

5. Other justifiable reasons.
- B. If the County Sanitarian proposes to deny issuance of a permit, the applicant shall be notified of the intent to deny and the reason for denial.
 - C. In the case of the denial or conditioning of a permit by the County Sanitarian, the applicant, if he so desires, may request a hearing before the Board of County Commissioners. A request for hearing shall be made in writing within 20 days of notification of the denial to the County Sanitarian and shall state the grounds for the request. Any hearing shall be conducted pursuant to the regulations of Teton County. The Board of County Commissioners may not issue a waiver from the design standards of these regulations.

SECTION 14. MODIFICATION OF A PERMIT

Either before construction is completed upon a permitted small wastewater system, or during the review of a proposed facility application, the County Sanitarian may, for good cause, modify a construction permit.

- A. When reviewing an application or before construction on a facility is completed, the County Sanitarian may modify a permit due to the following reasons:
 1. existing, unknown or changing site conditions which would prevent construction and resultant operation from complying with these regulations; or
 2. receipt of additional information; or
 3. incomplete application on review items where the applicant agrees with the modification; or
 4. review items not in compliance with minimum standards where the applicant agrees with the modification; or
 5. any other reason necessary to effectuate applicable statutes, standards or regulations.
- B. The County Sanitarian shall notify the permittee of the intent to modify the permit.
- C. 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.

- D. The modification shall become final within 20 days from the date of such notice unless within that time the permittee requests a hearing before the Board of County Commissioners. Such request for hearing shall be made in writing to the County Sanitarian and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the regulations of Teton County.
- E. A copy of the modified permit shall be forwarded to the permittee as soon as the modification becomes effective.

SECTION 15. SUSPENSION OR REVOCATION OF A PERMIT

The County 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 County Sanitarian shall notify the permittee of its intent to suspend or revoke the permit in the event that it becomes necessary due to:
 - 1. non-compliance with the terms of the permit; or
 - 2. unapproved modifications in design or construction; or
 - 3. false information submitted in the application; or
 - 4. changing site conditions which would result in violations of applicable regulations; or
 - 5. non-compliance with any requirements of these regulations; or
 - 6. 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 such notice unless within that time the permittee requests a hearing before the Board of County Commissioners. Such a request for hearing shall be made in writing to the County Sanitarian and shall state the grounds for the request. Any hearing held shall be

conducted pursuant to the applicable regulations.

SECTION 16. COMPLIANCE WITH STATE AND LOCAL WATER QUALITY MANAGEMENT PLANS

No permit may be issued for any facility which is in conflict with an approved water quality management plan prepared under Sections 303, 208 and/or 201 of the Federal Clean Water Act, as amended or the Teton County Land Development Regulations.

SECTION 17. FACILITIES AND SYSTEMS NOT SPECIFICALLY COVERED BY THESE STANDARDS

This section is provided to encourage new technology and equipment and provide a process for evaluation and permitting of designs which deviate from these regulations. The construction of innovative facilities and processes not in compliance with these regulations will be permitted provided that the facility, when constructed, can operate meeting the purpose of these regulations. A design provided by an engineer licensed within the State of Wyoming, knowledgeable in the design of wastewater systems, shall be required by the County Sanitarian for any facility which deviates from these regulations.

- A. Each application for a permit to construct a facility not in compliance with these regulations shall be evaluated jointly by the County Sanitarian and the Department of Environmental Quality, Water Quality Division on a case-by-case basis using the best available technology. The following information should be included with the application:
1. Data obtained from a full scale, comparable installation which demonstrates the acceptability of the design and/or,
 2. data obtained from a pilot plant operated under the design condition for a sufficient length of time to demonstrate the acceptability of the design and/or,
 3. data obtained from a theoretical evaluation of the design which demonstrates a reasonable probability of the facility meeting the design objectives; and
 4. an evaluation of the flexibility of making corrective changes to the constructed facility in the event it does not function as planned.
- B. If an applicant wishes to construct a pilot plant to provide the data necessary to show the design will meet the purpose of the act, a permit to construct must be obtained.

SECTION 18. DESIGN FLOWS

The sewerage system, treatment works and disposal system shall have a minimum absorption area based on the minimum peak design flows listed in Table 1.

TABLE 1

Quantities of Domestic Sewage Flows

<u>Type of Establishment</u>	<u>Flow (gallons per day per _____)</u>
Residential Facilities	
Single Family Dwellings	150/bedroom
Multiple Family Dwelling (with laundry)	150/bedroom
Multiple Family Dwelling (no laundry)	120/bedroom
Cottages	50/persons
Mobile Home Parks	350/home*
Commercial Facilities	
Airports (without restaurants)	4/passenger
Bar	3/patron
Bathhouses and swimming pools	10/persons
Campgrounds (indiv sewer hookups avail)	100/sites
Campgrounds (service building only)	75/sites
Church (no food service or dishwashing)	7/seat
Country club	100/member
Factories (domestic waste only)	30/employee
Hospital (domestic waste only)	200/bed
Motels	80/double bed 40/single bed
Office building	30/employee
Rest home	100/resident
Schools:	
Boarding	100/res. student
Day (no gyms, cafeterias or showers)	15/student
Service stations (domestic waste only)	10/vehicle served
Shopping center	2/parking space
Store, retail	30/employee
Theaters:	
Movie	5/seat
Drive-in	15/vehicle space
Warehouses	30/employee

*Must consider flow into the soil absorption system from facilities where taps are allowed to run

to prevent freezing.

SECTION 19. ISOLATION

- A. The isolation distances listed below apply when domestic wastewater is the only wastewater present and the flow is less than 2000 gallons per day (gpd). The minimum isolation distance (in feet) shown in Table 2 shall be maintained.

TABLE 2

<u>From</u>	<u>To Septic Tank Or Equivalent</u>	<u>To Absorption System</u>
Wells (includes neighboring wells)	50	100
Property lines	10	10
Bldg Foundation (w/o foundation drains)	5	10
Bldg Foundation(w/foundation drains)	5	25
Potable Water Pipes	25	25
Septic Tank		10
Stream or Surface		
Body of Water (including seasonal and intermittent)	50	50
Wetlands	50	50
Irrigation Ditches	50	50

- B. Location. Absorption systems shall not be located beneath buildings, parking lots, roadways, corrals or other similarly compacted areas.
- C. Watercourse protection district. No sewage treatment lagoon or subsurface disposal system shall be permitted.
- D. Lining or enclosing watercourses with acceptable impervious material MAY permit a reduction in the isolation distance requirement. In situations where the bottom of the canal or watercourse is at a higher elevation than the ground in which the absorption system is to be installed, a reduction in the isolation distance requirement may be justified, but must be approved by the County Sanitarian.

SECTION 20. SITE SUITABILITY

- A. Soil exploration. Soil exploration (profile hole) to a minimum depth of 4 feet below the bottom of the proposed absorption system (8-foot minimum) shall be made to provide information on subsoil conditions.
- B. Soil Evaluation.

1. No less than three percolation tests shall be run in the proposed absorption system location. The percolation tests shall be performed in accordance with Appendix A. The type of soil encountered at the percolation test location shall be specified.
2. An evaluation of the soil texture, by a person experienced in soils classification, may be used to estimate the percolation rate, but at least one percolation test shall be performed.
3. Percolation tests shall not be conducted in test holes which extend into groundwater, bedrock, or frozen soil.
4. Effort shall be made to protect the natural absorptive properties of the soil during construction. Soil absorption systems shall not be installed during adverse weather or soil conditions. Rain, severely cold temperatures, or excessively moist soils are considered adverse weather conditions. All smeared or compacted surfaces shall be restored to their original infiltrative conditions prior to replacement backfilling of the absorption system.
5. The installation of new wastewater systems is prohibited from November 15 through April 15 of each year unless approved by the County Sanitarian due to special circumstances. Repair of existing wastewater systems is not subject to the seasonal prohibition.
6. The requirements for percolation tests and/or soil texture evaluation MAY be waived by the County Sanitarian when adequate historical soil information is available and soil classification is verified by the County Sanitarian's examination of the required profile hole.

C. Bedrock or impermeable soil separation.

1. For single family homes, the depth to bedrock or impermeable soil must be at least 4 feet from the bottom of the absorption system and the natural ground surface in areas where absorption systems are to be constructed.
2. For all systems other than single family homes up to 2000 gallons per day, the depth to bedrock or impermeable soil must be at least 4 feet from the natural ground surface in areas where absorption systems are to be constructed.
3. Excessively permeable soils. Soils having a percolation rate of 1 minute per inch or less are unsuitable for subsurface sewage disposal. These soils may be used if a 6-inch layer of soil having a percolation rate of 5 minutes per inch or greater is placed between the bottom of the absorption field and the existing soil. The soil absorption system shall be sized based on the percolation rate of the fill material.

D. Ground water Requirements.

1. In areas where absorption systems are to be constructed, the depth to seasonally high groundwater must be at least four (4) feet from the bottom of the absorption system and at least two (2) feet from the natural ground surface. Also, a minimum of four (4) feet of unsaturated soil shall be maintained between the bottom of the absorption system and the estimated groundwater mound imposed on the seasonally high groundwater table, including perched groundwater and/or irrigation induced groundwater. The use of conventional onsite wastewater systems will be prohibited if the highest estimated elevation of the groundwater is expected to reach or exceed these requirements for any reason over the full operating life of the onsite wastewater system.
 - a. The height of the groundwater mound may be estimated from Figures 1 through 6. The average daily flow should be used and may be estimated as 0.6 times the flow determined from Table 1.
2. The maximum groundwater table shall be determined by one or more of the following methods:
 - a. Direct visual observation of the maximum groundwater table in a soil exploration pit.
 - b. Observation of soil in a soil exploration pit for evidence of crystals of salt left by the maximum ground water table; or chemically reduced iron in the soil reflected by a mottled coloring.
 - c. Previous groundwater records and climatological or other information may be consulted in cases where the anticipated maximum groundwater table is expected to rise to closer than forty-eight (48) inches from the original ground surface and an alternative or experimental onsite wastewater system would be considered.
 - d. A curtain drain or other effective groundwater interceptor may be required to be installed for an absorption system as a condition for its approval. The County Sanitarian may require that the effectiveness of such devices in lowering the groundwater table be demonstrated during the season of maximum groundwater table.

FIGURE 1

"Saturated thickness": Distance between the seasonally high groundwater table and the underlying impervious layer such as: clay, bedrock, or soils with significantly lower permeability.

"Estimated Rise in Water Table": The estimated distance the water table will rise at the center of the absorption system above the initial water table when the indicated flow is applied daily.

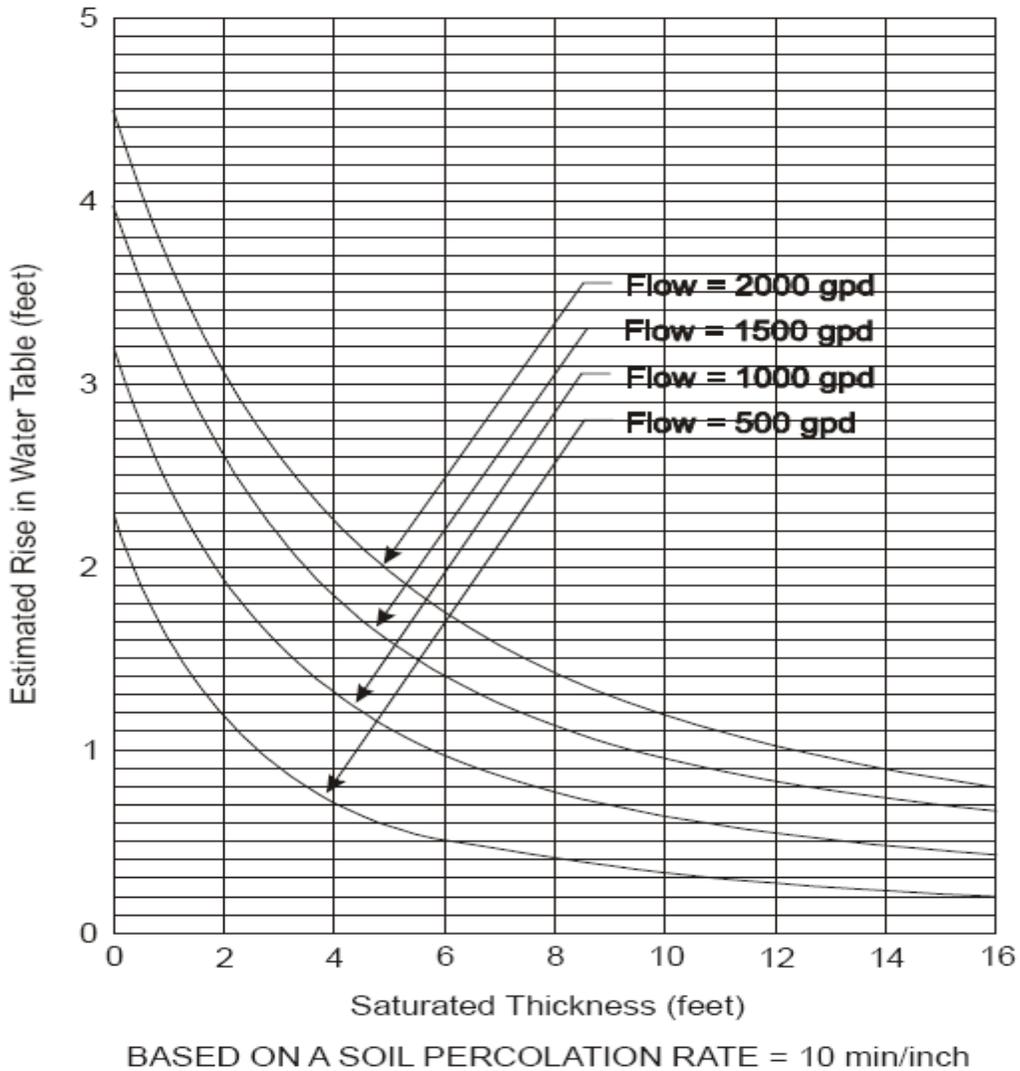


FIGURE 2

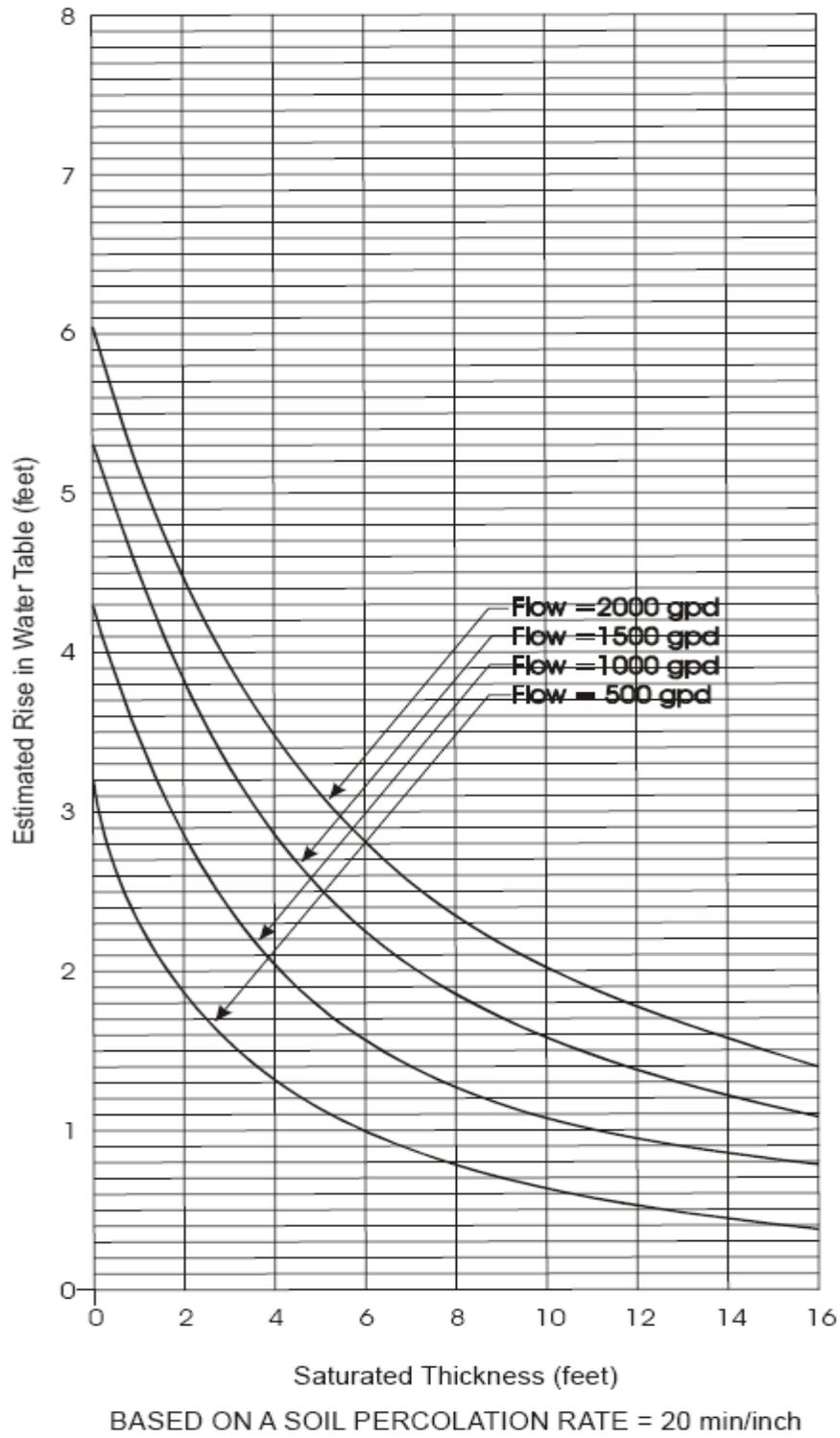


FIGURE 3

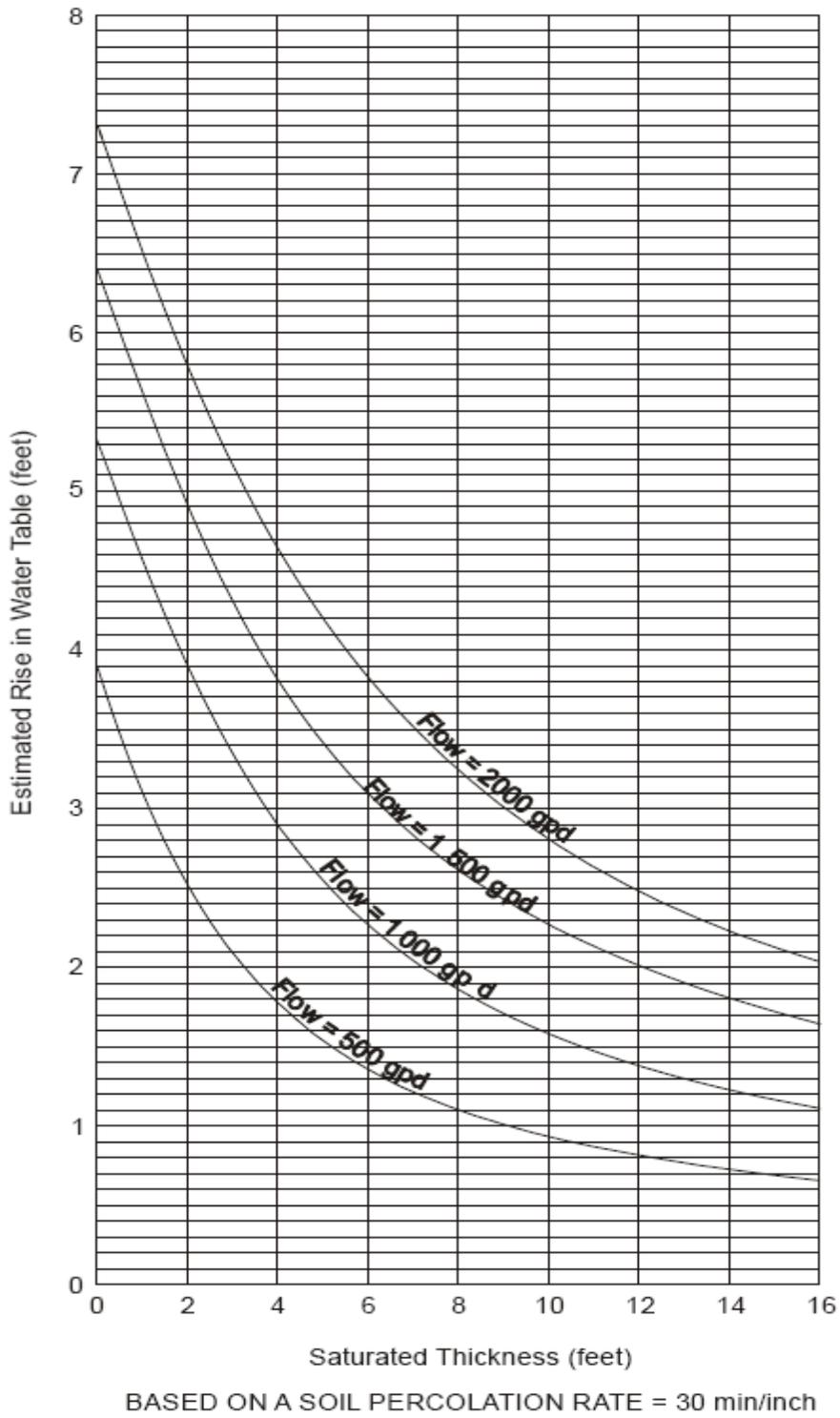


Figure 4

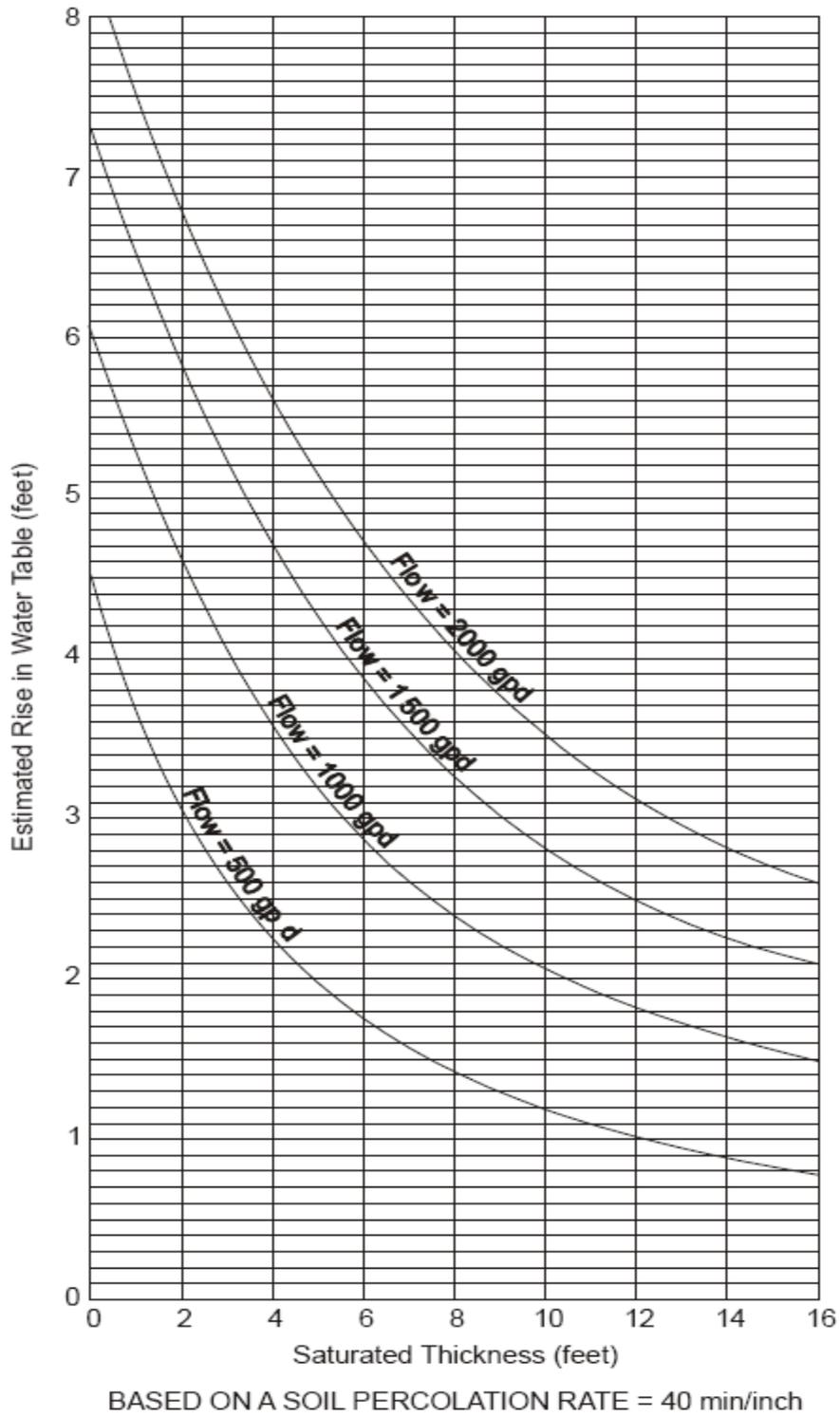


FIGURE 5

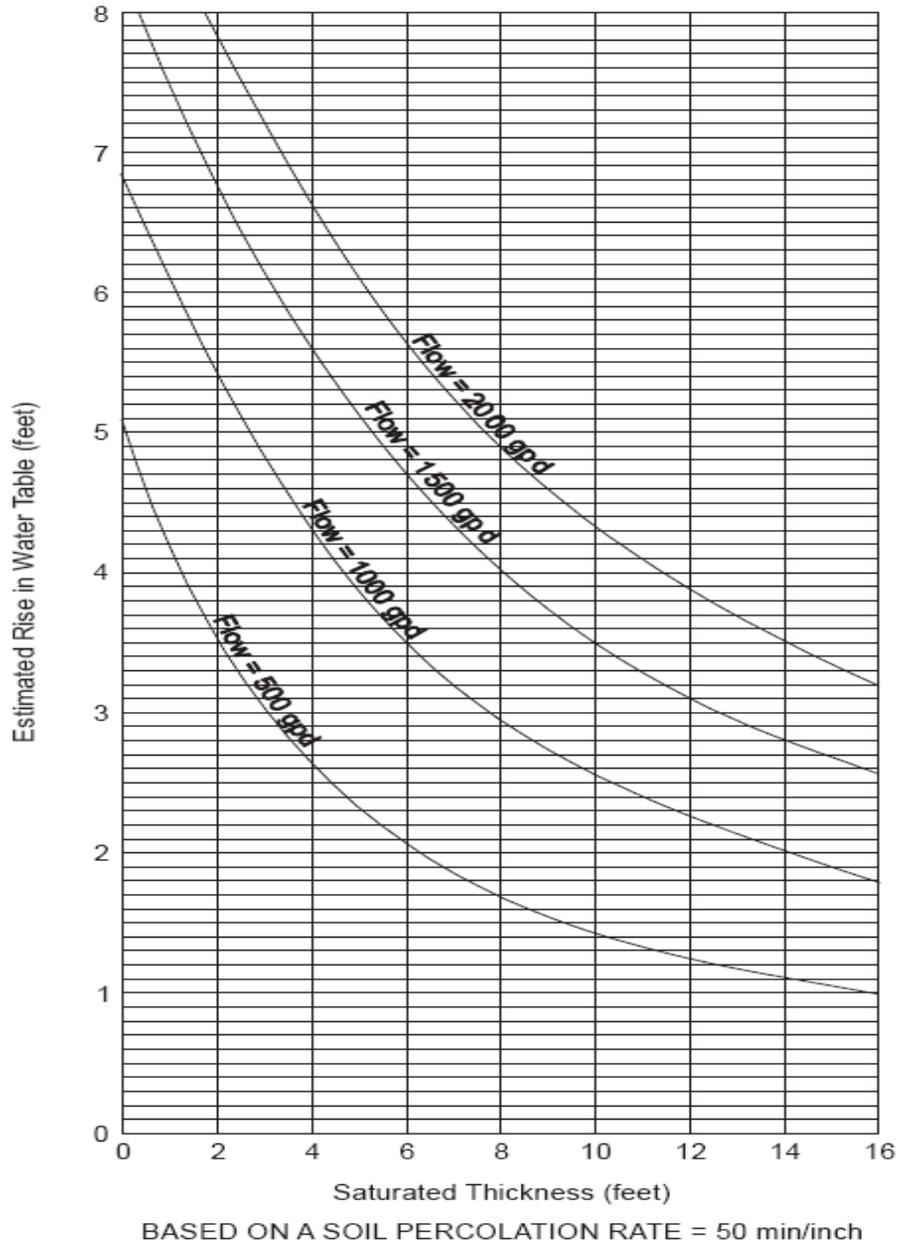
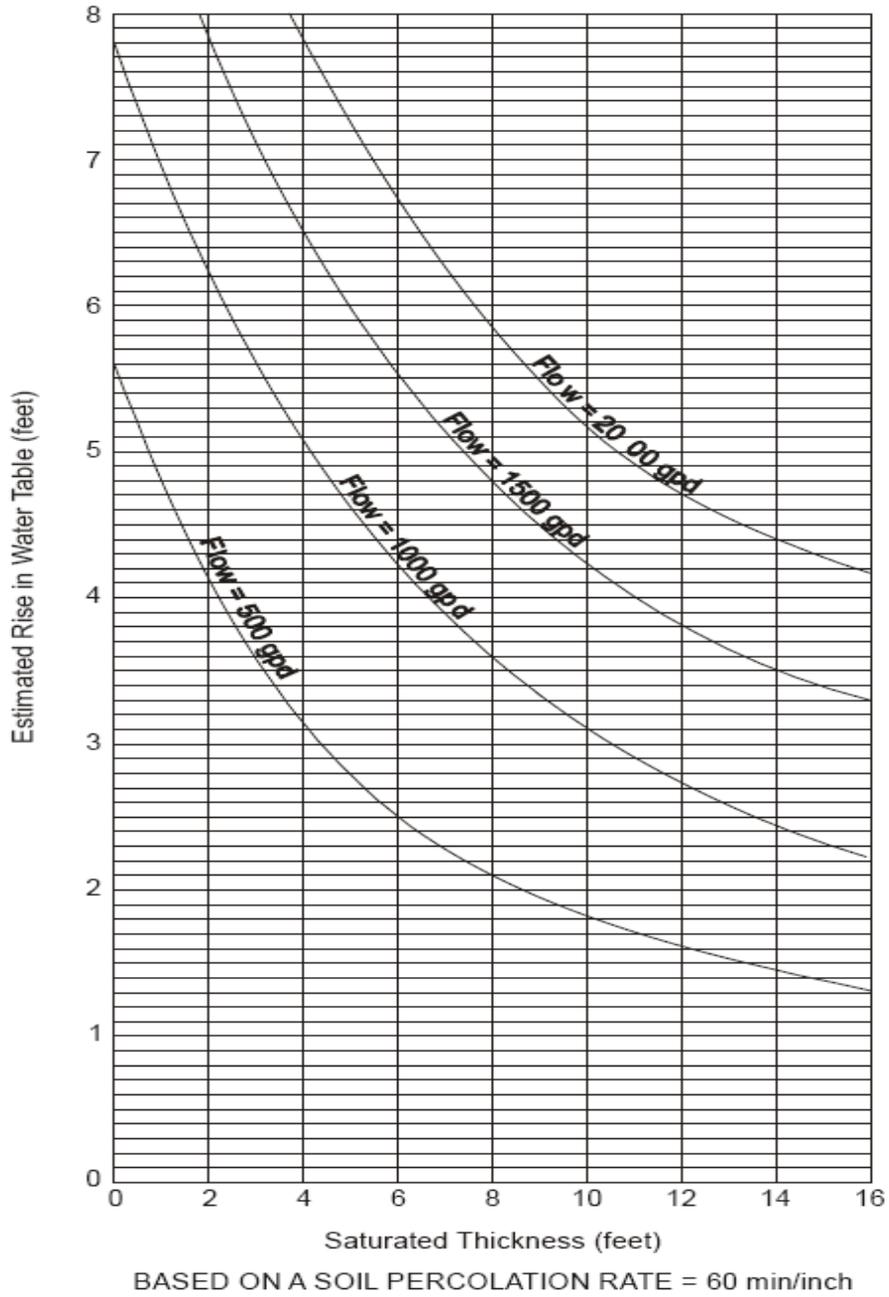


FIGURE 6



D. Sloping ground installations.

1. Absorption systems shall not be located in an area where the natural slope is steeper than stated below. The following are the maximum permissible slopes on which an absorption system may be constructed.

Percolation Rate (min/inch)	Maximum Slope*
Faster than 5	25%
6-45	20%
46-60	15%

*Flatter slopes may be required where the effluent may surface down slope.

2. All absorption systems must be located at least 15 feet from the top of any break in slope which exceeds the maximum allowed in Subsection 1 above.

SECTION 21. BUILDING SEWER PIPES

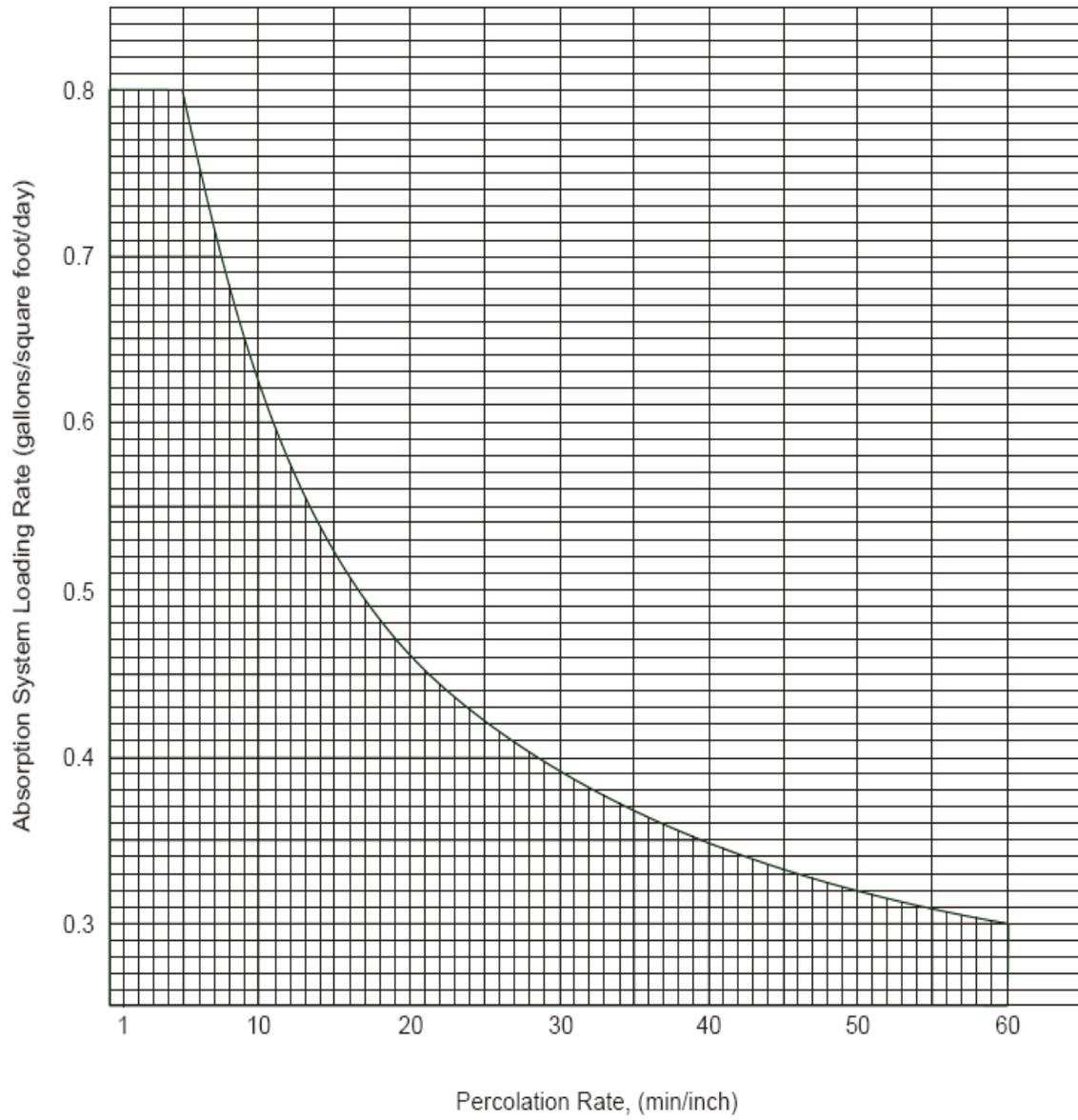
- A. Building drain pipe. All building drain pipe shall comply with the standards published in the locally approved, nationally recognized plumbing code.
- B. Building sewer pipe. All building sewers shall be installed in accordance with the locally approved nationally recognized plumbing code. In the absence of an approved plumbing code, the building sewer shall comply with the following:
 1. Material. Polyvinyl Chloride (PVC), Acrylonitrile - Butadiene - Styrene (ABS), Schedule 40 pipe shall be used for sewer pipes.
 2. Size. Building sewer pipes shall not be smaller than 4 inches in diameter. They shall be sized to handle the peak hourly flow from the building.
 3. Slope. Building sewer pipes should be laid at a minimum slope of 1/4 inch per foot.
 4. Alignment. Building sewer pipes should be laid in a straight line. Any single change or cumulative change of alignment of 22-1/2 degrees or greater shall be served by a cleanout.

5. Cleanouts. Cleanouts shall be provided every 100 feet maximum. A 4-inch capped cleanout within five feet of the building foundation is required.
6. Backfilling. 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. Special care shall be utilized to prevent lateral movement or ovalation during backfilling. The backfill material shall be compacted to a density at least equivalent to the trench walls. Backfill or other insulating material over the pipe shall be of sufficient depth to protect the pipe from expected traffic loads and the wastewater from freezing.

SECTION 22. SOIL ABSORPTION SYSTEM SIZING

- A. Trench and bed systems. The total infiltrative surface of a soil absorption system shall be calculated based on the flow rate as determined by the criteria stated in Section 18 and with the allowable loading rate as determined by using Figure 7. The total infiltrative surface is the sum of the sidewall and bottom areas of the absorption system below the invert of the distribution pipe, or the standard equivalent infiltrative surface area as determined by the WDEQ for the use of gravel-less chambers.
- B. Soils with a percolation rate of 60 minutes per inch or greater are unacceptable for standard absorption systems.

FIGURE 7



SECTION 23. PRETREATMENT

A. Septic tanks.

1. **Material.** The septic tank shall be constructed of durable material not subject to excessive corrosion or decay and structurally capable of supporting the loads to which it will be subjected. The tank shall be water-tight and accessible for inspection and cleaning. Steel tanks are not approved. Only concrete precast and manufactured fiberglass or polyethylene septic tanks are approved. Fiberglass and polyethylene tanks are allowed only when difficult access conditions exist and when specifically approved by the County Sanitarian. No poured-in-place or cement block tanks will be approved.

2. **Size.**
 - a. Residential units serving no more than 4 families. Minimum liquid volume of septic tanks shall be 1000 gallons for residences through 4 bedroom capacity. Additional capacity of 250 gallons per bedroom shall be provided for each bedroom over 4.

 - b. Commercial/industrial units. Septic tanks shall have a minimum effective liquid capacity sufficient to provide at least 36-hour retention at peak flow or 1000 gallons, whichever is greater.

3. **Configuration.**
 - a. The septic tank shall have a length to width ratio of no less than 2 to 1, or be so partitioned as to provide protection against short circuiting of flow. The water depth shall be no less than 4 feet nor greater than 6 feet. The septic tank inlet shall be provided with a tee or baffle. The outlet shall be provided with a tee or baffle and an effluent filter that extends into the middle third of the water depth to prevent floating or settled solids from carrying over into the disposal field or bed. The inlet pipe shall be at least 3 inches higher than the outlet pipe.

 - b. Two-compartment septic tanks are required. The volume of the first compartment must be at least 50 percent of the total required volume. The partition shall allow venting of the tank.

 - c. The outlet elevation shall be designed to provide a distance of 20 percent of the liquid depth between the top of the liquid and the bottom of the septic tank cover for scum storage.

4. A manway access shall be provided to each compartment of the septic tank for inspection and cleaning. The manway access shall have a minimum opening of 24 inches in the least dimension. Both inlet and outlet devices shall be accessible. Minimum 24-inch diameter covered risers extending to within 6 inches of the ground surface are required over both tank openings.
5. Installation. 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 bottom of the hole should be excavated an additional 6 inches and backfilled with sand, crushed stone, or gravel to the proper grade. 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.
6. Locations shall meet the requirements of Section 19 a. and c.
7. Tanks in Series. Additional septic tank capacity over 1,000 gallons may be obtained by joining tanks in series provided the following requirements are met:
 - a. No tank in the series shall be smaller than 1,000 gallons;
 - b. The outlet of each successive tank shall be at least 2 inches lower than the outlet of the preceding tank and shall be unrestricted except for the inlet to the first tank and the outlet for the last tank.
 - c. The number of tanks in series shall not exceed 3.

SECTION 24. DOSING SYSTEMS FOLLOWING THE SEPTIC TANK

A. Pumping systems for flow up to 2000 gallons per day.

1. Pump tank. Where only one pump is provided, the single compartment pump tank shall have the minimum volume as required in Table 3 below. The tank shall comply with the material requirements for septic tanks. The pump tank shall be vented. The vent shall have a downward turn that terminates at least 12 inches above ground and shall be provided with a screen. The pump tank shall have an access manhole provided with a minimum 24-inch diameter opening.

TABLE 3

Pump Tank

Volume (gallons) Required Between

<u>AVERAGE FLOWS (gallons per day)</u>	<u>"OFF" & "ON" SWITCH</u>	<u>"ON" & "ALARM" SWITCH</u>	<u>"ALARM" SWITCH & TANK INLET</u>	<u>PUMP CAPACITY (gpm)</u>
0-499	50	50	200	10
500-999	100	100	400	20
1000-1499	150	100	600	30
1500-2000	200	100	800	40

2. Pumps.

- a. Sizing. The pump shall have a flow rate of at least 10 gallons per minute when installed. The pressure loss (feet of head) of the system can be calculated by adding: the elevation difference between the discharge outlet at the soil absorption system and the low water level in the pump tank; and the friction losses incurred in the pressure transfer pipe and distribution piping. Table 4 may be used to estimate the head loss of the pipe when pumping 10 gallons per minute and using plastic pipe.

TABLE 4

Head Loss
(for 10 gallons per minute)

<u>Diameter (inches)</u>	<u>Head Loss per 100 feet of pipe (in feet)</u>
1	12
1 1/4	4
1 1/2	2

- b. Installation/removal. The pump shall be installed in the tank so that it can be removed without entering the tank. This can be accomplished by (1) looping the pipe up near the access manhole with a pipe union provided at the top of the loop, (2) using a quick disconnect sliding coupler, or (3) using a pitless adapter. Chains, cable, or piping can be used to lift the pump out of the tank if designed for this loading. Setting the pump on an 8-inch block minimizes the transfer of any solids that may enter the pump tank. An effluent filter is required at the outlet of the septic tank prior to the pump tank to further minimize the transfer of solids that may enter the pump tank.

- c. Electrical controls. The electrical control system for the wastewater pump shall consist of a "pump off" switch, a "pump on" switch, and a "high water alarm" switch which shall be located to provide the necessary volumes as stated in Table 3. All electrical controls (pump electrical cord, switches, etc.) shall comply with the National Electrical Code, Class 1, Group D, Division 1 locations. In addition, equipment located in the pump tank shall be suitable for use under corrosive conditions. All openings around the cables or cords entering the tank shall be sealed.
- 3. Pressure transfer pipe. The pressure transfer piping between the tank and the leach system shall be designed to drain after each pump cycle or be adequately insulated to prevent freezing. This can be accomplished by either eliminating the check valve at the pump or by providing a weep hole in the pipe in the tank. If the pipe is long, the tank shall be enlarged by the volume of the pipe to accommodate the volume of liquid drained from the pipe.
- B. Siphons. Recommended when site conditions offer adequate elevation differential. Where automatic siphons are used, they shall be designed to empty the siphon tank in less than 20 minutes. The siphon tank shall be sized in accordance with Subsection 24.a.1., above.
- C. Squirt Test. All pressure distribution systems shall be installed and tested under normal operating conditions, prior to backfill, to demonstrate to the satisfaction of the design Engineer and/or County Sanitarian, a minimum discharge head of 24 inches and equal flow distribution throughout the system.

SECTION 25. DISTRIBUTION BOXES

- A. General. When a distribution box is used it shall be provided with a means of access and shall be installed between the tank and disposal area. Distribution boxes shall be watertight and constructed of concrete or other durable material. They shall be designed to accommodate the necessary distribution piping leading to the disposal area to provide equal distribution of sewage liquids.
- B. Distributing piping. The inlet piping to the distribution box shall be at least 1 inch above the outlet pipes.
- C. The distribution box shall be of a construction approved by the County Sanitarian.
- D. Approved flow divider tees may be used in place of distribution boxes when approved by the County Sanitarian. Straight sanitary tees are not permitted.

SECTION 26. CONVENTIONAL SUBSURFACE TREATMENT AND DISPOSAL SYSTEM

A. General requirements.

1. **Replacement area.** An area shall be designated and shown on the plans for future installation of a replacement absorption system. If a trench system is used, the replacement area may include the area between the trenches if sufficient spacing has been provided. At least 3 feet of undisturbed soil shall remain between the existing and replacement trench side walls.
2. **Protection.** Effort shall be made to protect the natural absorptive properties of the soil. Soil absorption systems shall not be installed during adverse weather or soil conditions. Rain, severely cold temperatures, or excessively moist soils are considered adverse weather or soil conditions. All smeared or compacted surfaces shall be restored to their original infiltrative conditions prior to backfilling the absorption system.
3. **Runoff.** Surface runoff shall be diverted around or away from all soil absorption systems.
4. **Stone.** Soil absorption system stone shall be sized between 1/2 inch to 2-1/2 inches. At least 2 inches of stone shall be placed over the distribution pipe, and at least 12 inches of stone shall be placed under and beside the distribution piping. The stone shall be free from sand, silt and clay.
5. **Gravity pipe.** All plastic gravity absorption system pipes shall have a minimum diameter of 4 inches and shall conform to ASTM standard D2729. Piping in all horizontally constructed absorption systems shall be laid with the holes centered around the vertical axis at the bottom of the pipe. Piping in horizontally constructed absorption systems shall have a maximum slope of 3 inches per 100 feet. The ends of drain field pipe shall be connected together to form a complete circuit.
6. **Pressure pipe.** All pressure distribution piping shall be designed to withstand the anticipated pressures with a safety factor of two, provide uniform application of the wastewater, and have non-clogging orifices.
7. **Distribution box.** If a distribution box is used, it shall be installed to provide uniform distribution of the wastewater and shall be placed so that it will not be subject to frost heave and in accordance with Section 25.
8. **Stone cover.** A suitable filter cloth shall be placed over the stone prior to

backfilling the system.

9. Gravel-less Chambers. Gravel-less chambers may be used in lieu of the gravel media and perforated effluent pipe providing the installation is in accordance with manufacturers recommendations, as modified by the following:
 - a. No cracked, weakened, modified or otherwise damaged chamber units shall be used in any installation.
 - b. All chamber endplates shall be designed and constructed so that the bottom of the effluent pipe is at an equal or higher elevation than the highest elevation of the chamber sidewall louvers.
 - c. All chambers shall have a splash plate under the inlet pipe or other design feature to avoid unnecessary scouring or channeling into the trench bottom.
 - d. All chambers shall meet International Association of Plumbing and Mechanical Officials (IAMPO) standards.
10. Earth cover. A minimum of 12 inches of earth shall be placed over the absorption system. The earth shall be permeable soil that will allow aeration of the system and will support the growth of grass. The earth cover shall be graded to ensure that water will not pond on the surface.
11. Levelness. The bottom of soil absorption systems and each segment of a sidehill system shall be level.
12. Location. It shall meet the requirements of Section 19 a. and c.
13. Special requirements for trench systems. An undisturbed soil column shall be maintained between trench sidewalls. The minimum horizontal separation distance shall be 3 feet or 1.25 times the vertical depth of the trenches, whichever is greatest.
14. Special requirements for serial sidewall trench or bed systems.
 - a. Separation. A minimum of 3 feet of undisturbed soil shall be maintained between adjacent trench or bed sidewalls.
 - b. Levelness. The bottom of each serial trench or bed system shall be level.
 - c. Overflow. The overflow pipe between each serial leach system shall be set no higher than the mid-point of the upstream distribution pipe. The

overflow pipe shall not be perforate.

15. Special requirements for bed systems. The distribution system piping shall be spaced no more than 10 feet apart.

SECTION 27 ALTERNATIVE TREATMENT AND DISPOSAL SYSTEMS

A. Mound Systems.

1. Design requirements. Mound systems shall be allowed over naturally existing soils with a percolation rate between one to 60 minutes per inch provided:
 - a. The minimum separation distance between the maximum groundwater level and the natural ground surface shall be a least 24 inches.
 - b. A minimum of 4 feet of soil, either imported or natural, with a percolation rate between 5 and 60 minutes per inch shall be required from the infiltrative surface to the maximum groundwater level or impervious strata.
 - c. The native ground surface shall not exceed 25 percent for the installation of a mound system.
2. Sizing.
 - a. The infiltrative surface between the stone or gravel-less chambers and the fill material shall be sized based on the flow rate as determined by Section 18 and the allowable loading rate as determined by Figure 7 of Section 22 for the percolation rate of the fill. The total infiltrative surface is the sum of the sidewall and bottom areas of the stone-soil interface below the distribution pipe or the total equivalent area of the gravel-less chambers.
 - b. The interface area between the fill soil and the native soil shall be sized based on the infiltration rate of the native soil as determined by Figure 7.
3. Grade. The finished grade shall extend at least 3 feet horizontally beyond the stone or gravel-less chambers and then be sloped to the parent soil at a grade no steeper than four horizontal to one vertical.
4. Fill soil. The fill soil that is placed between the native soil and the stone or gravel-less chambers shall have a minimum percolation rate of 5 minutes per inch. Topsoil shall be placed over the mound to promote vegetative cover.

5. Preparation. All trees, roots, and other organic matter shall be removed from the area to be occupied by the mound. Effort shall be made to protect the natural absorptive properties of the soil. Soil absorption systems shall not be installed during adverse weather or soil conditions. Rain, severely cold temperatures, or excessively moist soils are considered adverse weather conditions. All smeared or compacted surfaces shall be restored to their original infiltrative conditions prior to placement of fill materials and backfilling.

B. At-Grade Systems.

1. Design requirements. Absorption trenches and beds may be placed in the at-grade position provided:
 - a. The top of the effluent distribution pipe or the bottom of the absorption trench is placed at the native ground surface. The maximum slope for above ground fill shall be four horizontal to one vertical.
 - b. A minimum of 4 feet of soil, either imported or natural, with a percolation rate between 5 and 30 minutes per inch shall be required from the infiltrative surface to the maximum groundwater level or impervious strata.
 - c. The site shall be graded such that surface water drains away from the wastewater system.
 - d. The native ground surface must be cleared of vegetation and the surface soil scarified to a minimum depth of 6 inches. Tilling shall not be permitted and any furrows resulting from the scarification shall be perpendicular to the slope.

SECTION 28. HOLDING TANKS

- A. Uses. Holding tanks shall not be used for residential systems when conventional or alternative systems are available, except when used to correct a failed subsurface disposal system when other alternatives are unavailable. Use of holding tanks for new construction is prohibited. Holding tanks require a Teton County Small Wastewater Facility Permit and are subject to approval of the County Sanitarian. Where holding tanks are allowed, they shall be sized on the basis of 7 days storage at the flow rate determined from Table 1.
- B. Acceptance. A letter of verification from the receiving agency, denoting acceptance of the wastewater generated shall be submitted with the plans.

- C. Location. The location and construction of holding tanks shall meet the requirements in Sections 19 a. and c. and Section 23 a.1 respectively. Sewage 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 levels or saturated soil conditions. In areas where groundwater may be high enough to “float” the tank when empty or partially full, adequate ground anchoring procedures shall be required as per the tank manufactures recommendations.
- D. Vent. Each holding tank shall be provided with a 2-inch minimum diameter vent ending in a return elbow above final grade. The vent shall terminate at least 30 feet from any door, window, or fresh air inlet. The vent should be screened.
- E. Alarm. All holding tanks shall be equipped with a high water level alarm. The device shall be an audible alarm or an indoor illuminated alarm. The alarm level shall be placed at 3/4 the depth of the tank.
- F. Pump out. A minimum 20-inch access riser which extends to the surface shall be provided. It shall be capped at all times.

SECTION 29. PRIVIES

- A. General requirements.
 - 1. All privies shall be designed and constructed to prevent access by flies and rodents.
 - 2. If indoor plumbing is installed, the greywater disposal method shall meet the requirements of Sections 18 through 28. The minimum design flow for greywater shall be obtained from Table 1 with a reduction of 33 percent allowed for the elimination of black wastes.
 - 3. The privy shall consist of a watertight vault and an outhouse building.
 - 4. The minimum size of a vaulted privy is to be not less than 500 gallons. Steel privies are not permitted.
- B. Isolation. The isolation requirements for privies shall comply with Section 19 a. and c. for absorption systems.
- C. Soil exploration. Soil exploration to a minimum depth of 4 feet below the bottom of the proposed vault shall be made to provide information on subsoil condition.
- D. Groundwater and bedrock separation. The depth to seasonally high groundwater shall be sufficient to prevent floatation of an empty watertight vault.

- E. Sizing. Vaults shall have a minimum capacity of 500 gallons per riser and shall be a minimum of 4.5 feet deep.
- F. Construction.
 - 1. The vault shall be constructed and installed to resist breakage and damage imposed by frost heave, uplift pressures from a fluctuating water table, loads imposed by the outhouse building and soils, and damage that may be caused by vandalism or rough cleaning procedures. The vault shall be constructed to prevent access by flies.
 - 2. Materials used for vault construction shall be resistant to alkali attack, hydrogen sulfide gas, and other corrosive elements associated with decomposing waste.
 - 3. A clean-out manhole shall be installed and shall have a minimum opening of 20 inches in the least dimension. The manhole shall be located outside of the outhouse building and be equipped with a tight-fitting secure cover.
 - 4. The vault shall be ventilated to a point outside and above the outhouse building. The outhouse building shall have a set of vents installed near the floor on two opposite sides of the building and a roof vent that has a rain cap. All vents shall be screened.
- G. Vault additives. No chemical or biological additive shall be placed in the vault that may adversely affect the operation of a sewage treatment facility where the vault waste will ultimately be disposed or that may adversely impact the quality of the groundwater as specified in Chapter VIII, "Quality Standards for Groundwater of Wyoming."

SECTION 30. CHEMICAL TOILETS

- A. General requirements. Chemical toilets shall only be used only during periods of construction and shall only be used in the containment of body wastes. Chemical or port-a-potty toilets are not approved for use once the residence is completed, even if only used seasonally.
- B. Greywater. If indoor plumbing is installed, a separate greywater disposal is required and shall meet the requirements of Sections 18 through 28. The minimum design flows for greywater shall be obtained from Table 1 with a reduction of 33 percent allowed for the elimination of black-water wastes.
- C. Disposal. All chemical toilet wastes shall be disposed of at an approved wastewater facility. A letter of verification from the receiving agency, denoting acceptance of the wastewater generated shall be submitted with the plans. These wastes shall not be

discharged into a soil absorption system.

- D. Construction. Chemical toilets shall be constructed and installed to resist breakage or damage from routine usage. Outdoor chemical toilets shall be adequately stabilized and secured to prevent overturning. Materials used shall be resistant to the sewage wastes and the chemicals encountered. The holding compartment of the toilet shall be constructed to prevent accessibility by the public and by flies and rodents.
- E. Additives. No chemical or biological additive shall be placed in the toilet that may adversely affect the operation of a sewage treatment facility where the toilet waste will ultimately be disposed or that may adversely impact the quality of the groundwater as specified in Chapter VIII, "Quality Standards for Groundwater of Wyoming."

SECTION 31 ABANDONMENT PROCEDURE

In the event a small wastewater system must be abandoned, the following requirements must be met:

- A. The tank must be pumped and waste shall be disposed of at an approved wastewater facility.
- B. The tank may be removed and the excavation where the tank was located filled with compacted gravel or topsoil. If the tank is to be left in place the bottom of the tank must be perforated to facilitate drainage then filled with gravel or topsoil.

SECTION 32. VALIDITY CLAUSE

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

SECTION 33. ENFORCEMENT

The Board of County Commissioners, through the County and prosecuting attorney or any other duly authorized enforcement official, shall enforce the provisions of this resolution.

- A. All officials, departments, and employees of the County vested with the authority or duty to issue permits, certificates, or licenses shall comply with the provisions of this resolution, and shall issue no permit, certificate or license which conflicts with the provisions of this resolution. Any permit, certificate, or license issued in conflict with the provisions of this resolution shall be null and void. Any person, owner, or agent, who is in violation of this resolution, shall not be allowed to apply for a permit related to the

alleged violation until the violation enforcement proceedings have been finally determined by the proper authority.

- B. The County shall have the authority to inspect any site and review the construction or maintenance of improvements to ensure conformance with the requirements of this resolution, provided that such inspections are conducted during weekday working hours.
- C. Whomever, being the owner or the agent of the owner of any land located within the unincorporated area of Teton County, develops or uses such land in violation of any of the provisions of this resolution, or any amendment thereto, shall be fined not more than \$100 for each offense. Each day's continuance of any violation is a separate offense.
- D. This resolution shall be enforceable by the County by injunctive action, in addition to all other remedies at law or in equity.

APPENDIX A
PERCOLATION TEST PROCEDURE

SECTION 1. LOCATION

The percolation test holes shall be spaced uniformly over the proposed absorption field site. A minimum of 3 test holes are required.

SECTION 2. PREPARATION

A 12-inch hole shall be dug or bored to the proposed depth of the absorption field. The walls shall be vertical. To expose a natural soil surface, the sides and bottom shall be scraped with a sharp pointed instrument and the loose material shall be removed from the hole. Coarse sand or gravel shall be placed in the bottom of the hole to prevent it from scouring and sealing.

SECTION 3. PRESOAKING

The purpose of presoaking is to have the water conditions in the soil reach a stable condition similar to that which exists during continual wastewater application. The minimum time of presoaking varies with soil conditions but must be sufficiently long so that the water seeps away at a constant rate. The following presoaking instructions are usually sufficient to obtain a constant rate.

- A. In sandy soils, place 12 inches of water in the hole and allow it to seep away. Fill the hole again with 12 inches of water and if the water seeps away in 10 minutes or less, it indicates that the soil is excessively permeable and requirements in Section 20.d. of these regulations shall be followed. If the water remains after 10 minutes, additional saturation is necessary. Refer to Section 3.b. below.
- B. In other soils, maintain 12 inches of water in the hole for at least 4 hours. After the 4 hours of water contact, allow the soil to swell for 12 hours before starting the percolation rate measurement as stated in Section 4 below.

SECTION 4. PERCOLATION RATE MEASUREMENT

The water level should be adjusted to 6 inches above the gravel initially and after each time interval measurement when necessary.

A. In other soils, establish a fixed reference point and measure the drop in water level at constant intervals. The water level drop should be measured to the nearest 1/8 of an inch. The test may be terminated when the water drop is consistent for 3 consecutive measurements.

B. The percolation rate for each hole is calculated as follows:

Time Interval (minutes)

Final Water Level Drop (inches)

If only 3 to 5 percolation tests are performed, the design percolation rate for the absorption system is the slowest rate from all the holes tested. If 6 or more percolation tests are performed, the design percolation rate for the absorption system is the average of all holes tested as determined by the above formula.