

**NORTHERN NEVADA**  
**Public Health**

*Serving Reno, Sparks & Washoe County*

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**REGULATIONS  
OF  
THE WASHOE COUNTY DISTRICT BOARD OF HEALTH  
GOVERNING**

**SEWAGE, WASTEWATER, AND  
SANITATION**

**NORTHERN NEVADA PUBLIC HEALTH**

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**AMENDED AND APPROVED ON MAY 23, 2013  
BY THE WASHOE COUNTY DISTRICT BOARD OF HEALTH**

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## **RESOLUTION**

### **SEWAGE, WASTEWATER AND SANITATION REGULATIONS**

#### **FORIN** **THE WASHOE COUNTY HEALTH DISTRICT** **NORTHERN NEVADA PUBLIC** **HEALTH**

**WHEREAS**, the Washoe County District Board of Health has been established pursuant to NRS 439.370 et seq. and vested thereby with jurisdiction over all public health matters within the geographic boundaries of Washoe County, Nevada; and

**WHEREAS**, NRS 444.650 permits local authorities to adopt, amend and enforce reasonable rules and regulations for the sanitary protection of water and sewage disposal; and

**WHEREAS**, the Washoe County District Board of Health deems it advisable to adopt regulations governing permits, construction, installation, operation and repair of on-site sewage disposal systems, sewage and wastewater pumping contractors, non-sewered toilet contractors and dump station operators within the area governed by the Washoe County Health District~~Northern Nevada Public Health~~ and to provide for a hearing board to assist the District Board of Health in processing appeals and variance requests related thereto;

**NOW, THEREFORE, BE IT RESOLVED** that the Washoe County District Board of Health does hereby adopt the following regulations governing Sewage, Wastewater, and Sanitation within ~~the Washoe County Health District~~Northern Nevada Public Health.

## SEWAGE, WASTEWATER, AND SANITATION REGULATIONS

### GENERAL PROVISIONS

These regulations provide the minimum requirements to be followed by any person developing property served by an on-site sewage disposal system. These requirements are promulgated to prevent the spread of disease, protect the water quality of this county and ensure the on-site sewage disposal systems function properly.

### SECTION 010

#### DEFINITIONS

As used in these regulations, unless the context otherwise requires:

- 010.005 AGGRIEVED PERSON** means any person who has been adversely affected by any action taken pursuant to these regulations.
- 010.010 APPROVED** means approved in writing by the [Health Authority](#).
- 010.015 AVAILABLE PUBLIC SEWER SYSTEM** means a public sewer system located no more than ~~400 feet from an existing building to be served or~~ 200 feet from the property line ~~of an undeveloped parcel~~. These distances shall be measured along the most probable route of connection. A public sewer system is available if:
1. Adjacent property owners will grant easements across their property if necessary for connection to the sewer system;
  2. The public sewer system has available capacity for the sewage generated from the parcel; and
  3. The person or governing body overseeing the operations of the sewage treatment plant will commit in writing to serve the parcel.
- 010.020 AVAILABLE SUITABLE LAND** means the minimum land area suitable for the installation of an on-site sewage disposal system exclusive of required setbacks.
- 010.025 BEDROCK** means a massive, continuous body of consolidated material connected by strong permanent cohesive forces and having limited filtering and treatment properties.
- 010.030 BUILDING** means any structure built, erected, installed and/or framed of component parts designed for the housing, shelter, enclosure, or support of persons, animals, or property of any kind.
- 010.035 BUILDING DRAIN** means that part of the drainage system, which receives sewage, discharged from inside the walls of the building and conveys it to the building sewer beginning two (2) feet outside the building.
- 010.040 BUILDING SEWER** means that part of the drainage system, which receives sewage discharged from the building drain and conveys it to an on-site sewage disposal system or other approved point of discharge.

- 010.045 CERTIFIED** means to stamp with the seal of a professional registered engineer as required by Nevada Revised Statute (NRS) 625.230.
- 010.050 CESSPOOL** means a lined or unlined excavation, which may receive direct discharges of sewage.
- 010.060 DEPTH TO GROUNDWATER TABLE** means the vertical distance between the original ground surface and the groundwater table.
- 010.065 DISPOSAL AREA** means that portion of the on-site sewage disposal system area which contains the disposal trench(es), the designated repair area for the disposal trench(es), provides for the required trench separations and meets the required setbacks.
- 010.070 DISPOSAL TRENCH** means that terminal portion of an on-site sewage disposal system that receives effluent from the septic tank or distribution system for final treatment, absorption, and disposal.
- 010.075 DISTRIBUTION SYSTEM** means a watertight structure located between the septic tank and the disposal area which receives effluent from a septic tank and distributes that effluent to the disposal trench(es).
- 010.080 DISTRICT BOARD OF HEALTH (DBOH)** means the District Board of Health ~~of the Washoe County Health District~~ which governs public health matters in Washoe County created pursuant to Chapter 439 of the Nevada Revised Statutes and by interlocal agreement of the Cities of Reno and Sparks and the County of Washoe, Nevada.
- 010.085 DISTRICT HEALTH OFFICER** means the person appointed by the District Board of Health ~~of the Washoe County Health District~~ to administer activities of ~~the Washoe County Health District~~ Northern Nevada Public Health within the ~~Health District~~ area governed by Northern Nevada Public Health, pursuant to the authority of the state and local health laws, ordinances, and regulations.
- 010.086 DOSING TANK** means a self contained commercially constructed tank to provide temporary storage of waste water for pumping or distribution purposes.
- 010.088 DRAINAGE CHANNEL** includes canyons, swales, washes, or depressions over and/or through which storm waters sometimes flow.
- 010.089 DRAIN ROCK** means washed, crushed rock or other approved material for use in the septic design as a media so that wastewater trickles through as a method of treatment and as approved by the Health Authority.
- 010.090 DUMP STATION** means any facility where sewage and wastewater from the tank trucks of sewage and wastewater pumping contractors, non-sewered toilet contractors, and the holding tanks of busses, trailers, recreational vehicles and other similar vehicles are legally discharged for ultimate disposal.
- 010.095 ENGINEER** means a licensed professional engineer with practical experience in the design, installation and operation of on-site sewage disposal systems.
- 010.100 ENGINEERED FILL** means granular material placed upon properly prepared original ground surfaces with controlled uniform relative compaction, tested and certified by an engineer as suitable for sewage disposal. Fill must be designed by engineer to a percolation rate that is

[conductive to the surrounding native material and allows for adequate treatment for sewage. Percolation testing may be required as part of final certification.](#)

- 010.105 ENGINEERED SYSTEM** means an on-site sewage disposal system that are Sand Filter Bed, Engineered "T" Sand Filter or Engineered Fill Systems as described in these regulations or other type of system designed by an engineer.
- 010.110 FAILED SYSTEM** means an on-site sewage disposal system that causes an unauthorized surface discharge of sewage.
- 010.112 FILTER FABRIC** means an air-permeable barrier to prevent cover soil from clogging the drain rock during backfilling over the disposal trench. Usually refers to a landscape material such as weed block available in a roll but may also include hay, newspaper or other materials approved by the [Health Authority](#).
- 010.115 FRACTURED BEDROCK** means bedrock possessing fractures, jointing, fissures or other similar physical characteristics that pose a threat to groundwater quality by having the capability of transmitting wastewater to groundwater without adequate treatment.
- 010.120 GREASE INTERCEPTOR** means a device used to remove grease from wastewater.
- 010.125 GREYWATER** means liquid waste containing little or no solid materials originating from bathing and laundry facilities.
- 010.130 GROUNDWATER** means water below the original ground surface where the soil is completely saturated.
- 010.135 HEALTH AUTHORITY** means the officers and agents of the ~~Washoe County District Board of Health~~ [District Board of Health, which governs public health matters in Washoe County.](#)
- 010.140 HEALTH DISTRICT** means ~~the Washoe County Health District~~ [Northern Nevada Public Health](#) created pursuant to Chapter 439 of the Nevada Revised Statutes and interlocal agreement of the City of Reno, City of Sparks, and the County of Washoe, Nevada, and includes all the incorporated cities and unincorporated areas within the geographical boundaries of Washoe County, Nevada.
- 010.145 HOLDING TANK** means a watertight receptacle for the temporary storage of wastewater.
- 010.150 IMPERVIOUS STRATA** means soil and or bedrock that limit the passage of water to slower than ~~sixty (60) minutes~~ [one hundred twenty \(120\) minutes](#) per inch.
- 010.160 MAXIMUM GROUNDWATER TABLE** means the highest level to which the groundwater table may be expected to rise.
- 010.165 MONITORING TUBE** means a capped and perforated pipe placed vertically in an on-site sewage disposal system or in the ground in the proximity of an on-site sewage disposal system for the purpose of monitoring variations in groundwater depths, groundwater quality or effluent depth and quality.
- 010.175 NON-SEWERED TOILET** means a self-contained toilet not connected to a sewer system that is portable, temporary, fly-tight and capable of being maintained in a sanitary condition.

- 010.180 NON-SEWERED TOILET CONTRACTOR** means any person engaged in the operation, placement, maintenance, servicing and removal of non-sewered toilets.
- 010.181 NORTHERN NEVADA PUBLIC HEALTH (NNPH)** means the agency formerly known as Washoe County Health District, which governs public health matters in Washoe County created pursuant to Chapter 439 of the Nevada Revised Statutes and by interlocal agreement of the Cities of Reno and Sparks and the County of Washoe, Nevada.
- 010.185 ON-SITE SEWAGE DISPOSAL SYSTEM** means a system for sewage collection, treatment and disposal located on an individual parcel as approved by the Health Authority. The components of the system includes all clean outs, the solid line before the tank, the tank itself, any solid lines and/or distribution system before the disposal field, and the disposal (leach) field itself, including the monitoring tube. Any required designated repair area(s) are considered part of the system.
- 010.190 PERCOLATION** means the movement of water through soil or rock.
- 010.195 PERCOLATION RATE** means the time expressed in minutes for clear water to drop one (1) inch in a percolation test hole.
- 010.200 PERCOLATION TEST** means the procedure required by these regulations for testing soil and rock to derive the representative percolation rate for the proposed sidewall absorption area.
- 010.205 PERCOLATION TEST HOLE** means a hole six (6) inches to eight (8) inches in diameter excavated to a minimum depth of twelve (12) inches used in the performance of a percolation test.
- 010.210 PERSON** means an individual, partnership, firm, corporation, or public agency. "Person" includes:
1. Any corporation which owns, leases, manages, rents, operates or possesses any real property located within the area governed by the Health DistrictNorthern Nevada Public Health; and
  2. Any officer, manager, agent or employee who is in charge of any property and who has power to give directions to other employees under his supervision.
- 010.215 PIT PRIVY** means a toilet consisting of a pit in the earth covered with a structure (privy building) affording privacy and shelter and containing one (1) or more stools with an opening into the pit.
- 010.220 PREMISE** includes any tract or parcel of land.
- 010.225 PRIVATE SEWER SYSTEM** means any system that is not a public sewer system.
- 010.230 PRIVATE WATER SYSTEM** means a well and water system that is not a public water system and has from two (2) to fourteen (14) service connections.
- 010.235 PUBLIC HEALTH HAZARD** means any condition which may injure or endanger the safety or health of any person(s), and which may render the soil, air or water impure or unwholesome.
- 010.240 PUBLIC SEWER SYSTEM** means a sewage collection, treatment, and disposal system serving more than one sewage source which is owned and operated by a public entity such as, but not limited to, a general improvement district, a sanitation district, city, county or the state.



- 010.245 PUBLIC WATER SYSTEM** means a water system, which serves at least fifteen (15) service connections or twenty-five (25) people at least sixty (60) days a year.
- 010.250 SEPTIC CONSTRAINT AREA** means an area designated by the District Board of Health where the construction of new on-site sewage treatment systems has the potential to create a health hazard.
- 010.255 SEPTIC TANK** means a watertight, covered receptacle designed and constructed to receive the discharge of sewage from a building sewer, separate the solids from the liquid, digest the organic matter, store digested solids through a period of detention, and allow the clarified liquids to discharge for final disposal.
- 010.260 SEWAGE** means a combination of the liquid and water carried wastes from any building or plumbing fixture, together with such groundwater, surface water and storm water as may be present. Water carried wastes include, but are not limited to, excrement and liquid wastes from kitchens, water closets, laundries, portable toilets and holding tanks.
- 010.262 SEWAGE, WASTEWATER AND SANITATION HEARING BOARD (SWS BOARD)** means an advisory board comprised of unpaid local experts appointed by the District Board of Health (DBOH) to provide technical expertise to the DBOH on matters involving sewage disposal, wastewater treatment, well construction, and public bathing places.
- 010.265 SEWAGE AND WASTEWATER PUMPING CONTRACTOR** means a person engaged in the operation of the removal and disposal of the solid and liquid contents of septic tanks, holding tanks or other wastewater treatment or disposal facilities.
- 010.267 SINGLE FAMILY DWELLING** means a residential building located on an individual parcel that is served by an on site sewage disposal system or public sewer and a domestic water source or a public water system.
- 010.270 SOIL** means sediments or other unconsolidated accumulations of mineral particles which may or may not contain organic material and which have filtering properties.
- 010.275 SUITABLE SIDEWALL ABSORPTION AREA** means that portion of a sidewall of the disposal trench located beneath the level of the perforated disposal pipe(s), which is capable of absorbing and treating the applied effluent.
- 010.280 TEST TRENCH** means a trench excavated for the purpose of observing and/or testing subsurface soil, bedrock, groundwater or other pertinent subsurface conditions.
- 010.285 UNDEVELOPED PARCEL** means a parcel of land not served by an on-site sewage disposal system.
- 010.290 VARIANCE** means a written agreement issued by the District Board of Health exempting the property owner or responsible person from specific law or regulation requirements.
- 010.295 VAULT-TOILET** means a toilet in which waste is deposited without flushing in a permanently installed, watertight, below ground container.
- 010.300 WASTEWATER** means water that is discharged after use.
- 010.305 WATERCOURSE** means a body of water, running or static, including but not limited to creeks, rivers, ponds, lakes, perennial streams, lined or unlined reservoirs, lined or unlined

canals, irrigation ditches and diversions, and subdrains. Watercourse does not apply to small, sealed ornamental recirculating yard features.

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## **SECTION 020**

### **PERMITS AND LICENSES**

- 020.005** The owner, contractor and/or person constructing the on-site sewage disposal system or developing property served by an onsite sewage disposal system is responsible to ensure the construction complies with the provisions of these regulations, variance conditions, the terms and conditions of the permit or any order issued by the [Health Authority](#). If the owner, contractor and/or the person constructing the on-site sewage disposal system or developing property served by an onsite sewage disposal system has specific knowledge of construction in violation of these regulations they shall immediately report that information to the [Health Authority](#).
- 020.010** The owner of the property served by an on-site sewage disposal system shall obtain an on-site sewage disposal construction permit from the [Health Authority](#) prior to any construction. A contractor or the owner's agent may act on behalf of the property owner in obtaining a construction permit, but the property owner shall be ultimately responsible for obtaining the permit.
- 020.015** Any remodel, additions to structures and construction of additional structures on a developed property served by an on-site sewage disposal system shall be submitted to and be approved by the [Health Authority](#) prior to construction. The remodel or construction permit applications shall comply with the applicable sections of 020.005 through 020.070. [Approval will be based upon ability to demonstrate the property has adequate space, as per 040.040, for two complete \(primary and repair\) on site sewage disposal systems, meeting all required setbacks.](#)
- 020.020** The contractor/builder of the Construction Company responsible for the construction of the on-site sewage disposal system shall have a valid Business License and a State Contractor's License prior to starting work in the [Health District area governed by Northern Nevada Public Health](#). Owner-builders do not need a Business License or a State Contractor's License.
- 020.025** A fee shall be charged for the issuance of a construction permit in accordance with the current fee schedule adopted by the District Board of Health.
- 020.030** The contractor or owner shall have a copy of the construction permit, approved plan, variance and/or any other special conditions on the work site at all times during construction.
- 020.035** An on-site sewage disposal construction permit shall be obtained from the [Health Authority](#) to construct, alter, extend, repair, replace or abandon onsite sewage disposal system(s) prior to any construction described in Section 020.015.
- 020.040** Plan submittals for additions of bedrooms to an existing home ~~or, for~~ new residential home construction, [or septic repair permits](#) shall include:
1. The name, address, and current phone number of the applicant.
  2. The Assessor's parcel number of the property which is the subject of the permit.
  3. Two copies of clearly legible complete plans, minimum size 18" x 24", maximum size 24" x 36", [unless plans are allowed to be submitted electronically](#). The scale for properties with less than 10 acres shall be in the range of 1 inch = 10 feet to 1 inch = 40 feet. The scale for properties greater than 10 acres shall be in the range of 1 inch = 50 feet to 1 inch = 100 feet and shall include a detail of the residence and delineated septic

system, well and/or water supply system in a scale range of 1 inch = 10 feet to 1 inch = 40 feet. The plan shall be drawn to scale and the following information must be included on the plan:

- a. The location of all existing and proposed buildings.
- b. The location of all existing and proposed on-site sewage disposal system components and an area delineated for a future replacement of disposal trench(es).
- c. All water lines.
- d. A vicinity map.
- e. A north arrow.
- f. The lot dimensions and total lot area.
- g. The location of roadways, area subject to vehicular traffic, any and all easements, material storage or large animal habitation.
- h. The location and distance to any on-site sewage disposal system within 100 feet of the subject property. If none, so indicate. This information is not required for properties served by an approved community water system.
- i. The location and distance to any private well within 100 feet of the subject property and any public well within 150 feet of the subject property. The locations shall be shown with dimensions to the closest property lines. If none, so indicate.
- j. The location of any percolation hole or test trench(es) on the property with dimensions to the two closest property lines.
- k. The distance to any available public sewer system within 400 feet of the property. If none, so indicate.
- l. The existing and proposed ground contours of the on-site sewage disposal system area shown with 2-foot contour intervals.
- m. The location and layout of all existing and proposed drainage improvement.
- n. The location of any watercourse including lakes, ponds, streams, or irrigation ditches located on or within 100 feet of the property. If none, so indicate.
- o. The boundaries of the Federal Emergency Management Agency (FEMA) 100-year flood plain within 100 feet of the property. If none, so indicate.

**020.045** Plan submittals ~~for expansions of the existing building footprint or construction of a new building that includes plumbing but not additional~~for expansions of the existing building footprint or any other construction required pursuant to 020.015-bedrooms shall include:

1. The name, address, and current phone number of the applicant.
2. The Assessor's parcel number of the property which is the subject of the permit.

3. Two copies of clearly legible complete plans, minimum size 18" x 24", maximum size 24" x 36", unless plans are allowed to be submitted electronically. The scale for properties with less than 10 acres shall be in the range of 1 inch = 10 feet to 1 inch = 40 feet. The scale for properties greater than 10 acres shall be in the range of 1 inch = 50 feet to 1 inch = 100 feet and shall include a detail of the residence and delineated septic system, well and/or water supply system in a scale range of 1 inch = 10 feet to 1 inch = 40 feet. The plan shall be drawn to scale and the following information must be included on the plan:

- a. The location of all existing and proposed buildings.
- b. The location and dimensions of all existing and proposed on-site sewage disposal system components and an area delineated for a future replacement of disposal trench(es).
- c. All water lines.
- d. A vicinity map.
- e. A north arrow.
- f. The lot dimensions and total lot area.

g. The location of roadways, area subject to vehicular traffic, any and all easements, material storage or large animal habitation.

g-h. Any additional information that may required by the Northern Nevada Public Health to ensure that the construction will not impact the property's ability to properly discharge sewage, either with existing system or for future repair area. This may include delineation of wells, watercourses and/or drainages.

~~020.050~~ Plan submittals for applications for constructions not involving plumbing including patio covers, solar arrays, fencing, carports, garages without plumbing, etc. shall include:

- ~~1.~~ The name, address and current phone number of the applicant.
- ~~2.~~ The Assessor's parcel number of the property which is the subject of the permit.
- ~~3.~~ Two copies of clearly legible complete plans showing the location of all buildings, septic system components, wells, water lines, a north arrow, and a vicinity map.

**020.0520** Plan submittals for septic system abandonments or replacement of a septic tank only shall include:

1. The name, address and current phone number of the applicant.
2. The Assessor's parcel number of the property which is the subject of the permit.
3. Two copies of clearly legible complete plans showing the location of all buildings, septic system components, wells, water lines, a north arrow, and a vicinity map.
4. The disposal plan required by section 120.055, if applicable.

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- 020.055** A construction permit for any new on-site sewage disposal system shall only be issued in conjunction with a building permit application for the building it serves. The plans and related information submitted to ~~the Washoe County Health District~~[Northern Nevada Public Health](#) and the Washoe County Building Department shall be the same. A building permit application is not required to obtain a construction permit to repair an existing on-site sewage disposal system.
- 020.060** If the Sewage Disposal Construction permit application does not contain the above information, it will be considered incomplete and will be required to be resubmitted with complete information.
- 020.065** A Sewage Disposal Construction Permit expires eighteen (18) months from the date of issue. Construction shall begin and be completed within the eighteen (18) month period. Permit renewals, extensions, withdrawals, etc. will be considered upon application within the original 18 month period prior to the original permit expiration. [Permits issued in conjunction with a building permit will expire with the building permit.](#)
- 020.070** Once the Sewage Disposal Construction Permit has been approved, no changes or deviations to the approved plan shall be allowed without prior written authorization from the [Health Authority](#). Any preauthorized change will require submittal and approval of an as-built plan from the owner/contractor for accurate record keeping by ~~the Health District~~[Northern Nevada Public Health](#).
- 020.075** A Sewage Disposal Construction Permit shall be denied if the [Health Authority](#) determines that the proposed construction will not comply with these regulations or if there is an available sewer system [as defined by Section 010.015. For existing properties with septic systems in failure, owners may request a financial hardship exemption to be allowed a construction permit if sewer is available. Only construction costs will be considered for evaluation of hardship. In the event that the exemption is not approved, applicant may appeal the decision pursuant to section 170.040. New construction and parcel maps do not qualify for financial hardship appeals.](#) Construction permits are not required for the normal maintenance or the replacement of the solid lines (pipes) connecting the components of a standard on-site sewage disposal system.
- 020.080** If a public sewer system is available as defined by Section 010.015, an onsite sewage disposal system cannot be constructed, altered, reconditioned or replaced, and a required permit for such activities will not be issued.
- 020.085** Site grading shall be completed in such a manner to prevent surface water ponding in the on-site sewage disposal system area, or drain into any on-site sewage disposal system component.
- 020.090** A Sewage Disposal Construction Permit, upon final approval of the construction, becomes an operating permit and constitutes a permit to operate an on-site sewage disposal system. [The Health District may require recording of documents that outline certain operating conditions or restrictions to the property as needed.](#) An operating permit remains valid until the on-site sewage disposal system fails or the property is connected to community sewer.
- 020.095** The owner of the property shall notify the [Health Authority](#) within 24 hours if the on-site sewage disposal system fails. Any surface discharge of sewage shall immediately be mitigated, necessary repairs made, cleaned up and disinfected. Action to prevent a health hazard when an on-site sewage disposal system fails will be consistent with enforcement policies established by the District Board of Health.

- 020.100** For properties that are not owner-occupied, the property owner or their agent is responsible for the safe and proper operation of the on-site sewage disposal system and the safe clean up, disinfection, storage and removal of any surface discharge of sewage.
- 020.105** Properties such as but not limited to apartment complexes, mobile home or RV parks, hotels and motels that do not have a manager or responsible person on the property and available 24 hours a day to respond to sewage failures or problems shall conspicuously post a current emergency phone number. The tenants shall be provided the emergency phone number at the time of occupying the units and shall be notified of any changes of the phone number or responsible person. The responsible person shall have an approved emergency response plan to handle sewage failures, backups and problems.

## **SECTION 030**

### **INSPECTIONS**

- 030.005** Upon request of the Health Authority representative, the owner/contractor shall provide personal photo identification, any permits, plans, and licenses, variances or other documentation pertaining to the on-site sewage disposal system.
- 030.010** Any person who obstructs, hampers, or interferes with any inspection by the Health Authority or any person who refuses entry or access to any property, premise or place where an on-site sewage disposal system is failing or is being constructed, altered, extended, repaired, replaced or abandoned, is guilty of a misdemeanor.
- 030.015** The Health Authority shall inspect the construction of on-site sewage disposal systems:
1. When excavations for the disposal trench(es) are complete and adequate drain rock is onsite; and
  2. When all system plumbing, wiring, bedding, pipe joints and installation of appurtenances are complete, but prior to backfilling of system components, adequate filter and covering material shall be on-site at the time of the final inspection to ensure compliance with Section 100.020.
- 030.020** The Health Authority may require additional inspections. On-site sewage disposal systems required to be designed by an engineer shall be verified/certified by the design engineer prior to final approval.
- 030.025** Property corners shall be clearly marked prior to Health Authority inspection.
- 030.030** The contractor and/or person constructing the on-site sewage disposal system shall give the [Health Authority](#) at least 24 hours or one full working day, whichever is greater, notice to schedule an inspection. The contractor and/or person constructing the on-site sewage disposal system shall provide the On-site Sewage Disposal Construction Permit number, system location by address and ~~assessors~~[assessor's](#) parcel number, company name, licensed contractor's name and the date and time of the inspection request.
- 030.035** If the contractor and/or person constructing the on-site sewage disposal system will not be ready for inspection at the indicated time and date, the contractor and/or person constructing the on-site sewage disposal system shall, as soon as possible, notify the Health Authority of the cancellation. The Health Authority may charge a re-inspection fee each time the contractor and/or person constructing the on-site sewage disposal system makes a late notification or fails to notify the Health Authority of the cancellation. The Health Authority shall charge re-inspection fees for additional inspections required resulting from Correction Notices, Notices of Violations, or Stop Work Orders.
- 030.040** Final written approval by the Health Authority is required prior to occupancy of any building served by an on-site sewage disposal system. This approval may come in the form of a final sign-off by a Health Authority representative on the on-site building permit.
- 030.045** Before leaving the sewage disposal construction site unattended, the contractor and/or person constructing the on-site sewage disposal system shall take precautions and be responsible for



securing the construction site to protect human and animal safety concerns, and the on-site sewage disposal system from damage.

- 030.047** Any damage or alteration to the on-site sewage disposal system beyond the parameter of the original approved plans will require notification to the [Health Authority](#) for further consideration and possible approval thereof. This may include, but not be limited to, a submittal and approval of an as-built plan prior to mitigating and or resuming construction.
- 030.050** The contractor and/or person constructing the on-site sewage disposal system shall make every attempt to prevent ground and surface water contamination on the work site. In the event of an accidental release of any solid waste, liquid waste, regulated substance or hazardous material, the contractor and/or person constructing the on-site sewage disposal system shall immediately notify the Health Authority and clean-up, remove, and properly dispose of the material within the time limits set by the Health Authority. This shall be in accordance with these regulations and the Washoe County District Board of Health Regulations Governing Solid Waste Management.
- 030.055** Whenever any violation occurs to any provision of these regulations, the Health Authority may issue a Stop Work Order to the contractor and/or person constructing the on-site sewage disposal system in person or by posting it in a conspicuous place on the work site. The Stop Work Order shall specify the violations. Upon receipt of the Stop Work Order, the contractor and/or person constructing the on-site sewage disposal system shall immediately stop all construction activities. The contractor and/or person constructing the on-site sewage disposal system shall not resume construction activities until the Stop Work Order has been rescinded by the Health Authority. It shall be unlawful for any person to continue construction activities, or to remove the posted Stop Work Order without prior authorization from the Health Authority.
- 030.060** After notification to the responsible person by the Health Authority of any violation to these regulations, it shall be unlawful for that person to refuse or fail to [correct violations](#) within the time limits set in the notice, unless a time extension is requested by the responsible party and granted by the Health Authority.
- 030.065** Failure to comply with an order by the [Health Authority](#) or to correct an existing violation shall be grounds to revoke the sewage disposal construction permit and/or operating permit. If a permit is revoked, a new construction permit shall be required prior to resuming construction.

## **SECTION 040**

### **AREAS AND LOCATION REQUIREMENTS FOR CONSTRUCTION OF ON-SITE SEWAGE DISPOSAL SYSTEMS**

- ~~**040.005** Lots created prior to October 19, 1972 are exempt from the lot size requirements of Section 040.020 and Table 1.~~
- ~~**040.006** Lots created after October 19, 1972 and prior to March 21, 1991 with an on site water well shall contain a minimum area of one acre (43,560 square feet) and shall comply with the minimum requirements stipulated by 040.020 of these regulations.~~
- ~~**040.010** Lots created prior to March 21, 1991 and served by a public water system shall contain a minimum area of one third (1/3) acre (14,520 square feet) and shall comply with the minimum requirements stipulated by 040.020 of these regulations.~~

~~040.015~~ Lots created after March 21, 1991 and before October 23, 2001, that are to be served by on-site sewage disposal systems, shall be a minimum of one acre and shall comply with the minimum requirements stipulated by 040.020 of these regulations.

~~040.020~~ Minimum lot size shall be increased to account for the average original ground slope of the disposal area according to Table 1:

**TABLE 1**  
**MINIMUM LOT SIZE ACCORDING TO SLOPE OVER DISPOSAL AREA**

Average Slope of the Disposal Area	On-Site System with Well		On-Site System Community Water	
	Sq. Ft.	Acres	Sq. Ft.	Acres
Less than 5%	43,560	1.0 acre	14,520	.033
5% or more but less than 10%	54,450	1.25 acres	18,150	.042
10% or more but less than 20%	65,340	1.5 acres	21,780	0.50
20% or more but less than 30%	87,120	2.0 acres	29,040	0.67

~~040.025~~ On-site sewage disposal fields are prohibited in areas where the original ground slope is greater than 30%.

~~040.02610~~ The minimum lot size for parcels to be served by an onsite sewage disposal system is one acre. Existing lots smaller than 1 acre are allowed to construct one a single family dwelling provided that all applicable onsite sewage disposal system setbacks and regulations are met.

~~040.0270~~ The first four parcels created from lots as they existed on October 23, 2001 shall be a minimum of 1 acre.

~~040.030~~ The minimum lot size for new subdivisions and a second or subsequent parcel map from the original parcel as it existed on October 23, 2001, proposing to use on-site sewage disposal, shall be 5 acres. The [Health Authority](#) may reduce the minimum lot size requirement to as small as one acre per lot if the applicant for division can show to the satisfaction of the Health Authority that adequate measures have been taken to ensure that the smaller lot area will not have a greater impact to the groundwater quality than the 5-acre lot size. In any case, no division shall be approved if the parcel density exceeds the standard established by the Nevada Division of Environmental Protection. Staff decisions regarding the adequacy of the proposed measures shall be approved by the Sewage Wastewater and Sanitation Hearing Board and the District Board of Health through the variance procedure outlined in these regulations. ~~Existing lots and the first four parcels created from an existing parcel shall be a minimum area of 1 acre.~~

~~040.035~~ For other than a single family dwelling, the required minimum area shall be consistent with Table 1 and shall be computed at twenty two (22) square feet per gallon of estimated sewage. Current Uniform Plumbing Code fixture unit values shall be rated at not less than twenty-five (25) gallons per fixture unit per day. One half (1/2) of the required area shall be reserved for sewage disposal only.

~~040.040~~ In all instances, the lot shall contain sufficient area for the installation of two (2) complete disposal trench systems including all applicable and required setbacks as outlined in these regulations (original plus reserve area for future replacement). [Reserve areas must be suitable](#)

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and readily available when designated; any preparation work to make them readily available must be completed at time of designation.

**040.045** The disposal trench sidewall shall have a minimum horizontal set back of twenty (20) feet from the face of the finished slope, as measured at the level of the perforated disposal pipe (See Figure 1).

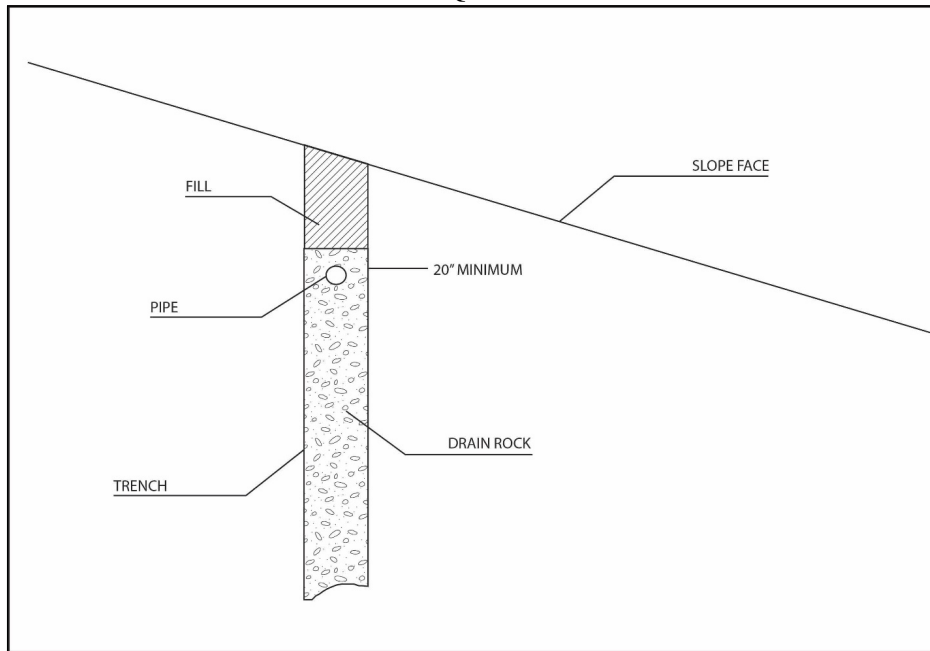
**040.050** The minimum setback for disposal trenches from the flow line/bank of a watercourse (irrigation ditches, rivers, ponds, as defined in section 010.305), as determined by the Health Authority, may be reduced from 100 feet to 50 feet depending upon site conditions, field observations, water flow, and upon approval by the Health Authority.

**040.055** With Health Authority approval, small irrigation diversions and drainages may be crossed by hard line piping from the septic tank without a variance, if standard protection measures are designed by an engineer and certified upon completion. Standard protection measures include encasing the piping in concrete or sleeving and securing the pipe with secondary containment to the minimum setback distance required on either side. The Health Authority will review and determine if the design and situation are appropriate or if a variance is required. All other components of the septic system must meet all applicable setbacks. These options are not available to larger irrigation ditches and diversions, or any other watercourses, as determined by the Health Authority.

**040.060** The Health Authority shall determine and map septic constraint areas within the area governed by the Health District Northern Nevada Public Health. Such maps shall, by District Board of Health action, become part of these regulations. In determining the boundaries of septic constraint areas, the Health Authority shall determine if the geologic and hydrologic conditions would be in compliance with the standards stipulated in these regulations. Legal notices for adoption of septic constraint areas shall include maps, which clearly identify the properties under consideration. Notices of proposed actions would be mailed to the owners of all properties under consideration.

**Commented [DK2]:** IF someone can come up with language that will allow for variability for huge drainages

**FIGURE 1  
SLOPE REQUIREMENTS**



- 040.065 The [Health Authority](#) shall not approve subdivisions or parcel maps, which are proposed to be served by on-site sewage disposal systems which are proposed to be located within a septic constraint area.
- 040.070 No disposal trench may be constructed within fifty (50) feet of any area subject to flood irrigation.
- 040.075 On-site sewage disposal systems within the limits of the 100-year flood plain as delineated on the FEMA Flood Insurance Rate map series shall be designed by an engineer to function and prevent a health hazard during a 100-year flood event.
- 040.080 In areas where [the Health District](#) staff has determined that flood waters may be present for at least three months, the septic tank and leach field shall be set back at least 100 feet from the edge of the highest water level.
- 040.085 On-site sewage disposal systems are prohibited in any area subject to vehicular traffic, large animal confinement, material storage, or any area to be paved, unless adequately protected and approved by the [Health Authority](#).
- 040.090 On-site sewage disposal systems are prohibited under any structure or building.
- 040.095 The minimum setback to an underground easement is 10 feet from the edge of the easement.

- 040.096** No on-site sewage disposal system construction, modification, and/or repairs may be located in any underground easement that is incompatible with the system as determined by the [Health Authority](#).
- 040.097** The minimum setback to property lines is 10 feet from the edge of the property line.
- 040.098** Setbacks to property lines and easements may be reduced with [Health Authority](#) approval.
- 040.100** All on-site sewage disposal systems shall meet the requirements listed in Table [12](#).

**TABLE [12](#)  
LOCATION OF ON-SITE SEWAGE DISPOSAL SYSTEM**

MINIMUM HORIZONTAL DISTANCE (IN FEET)	BUILDING SEWER	SEPTIC AND DOSING TANK	DISPOSAL TRENCH
BUILDING	-	5	2 x TRENCH DEPTH, NO LESS THAN 10 FEET (1) (2)
PROPERTY LINES <a href="#">EASEMENTS</a> (3)	10	10	10
WELLS (private)	50	100	100
WELLS (public)	50 (3)	150	150
WATERCOURSES	50 (4)	100 (4)	100 (4)
BELOW GROUND SWIMMING POOL	5	5	10
DISPOSAL FIELDS	-	5	2 x TRENCH DEPTH, NO LESS THAN 10 FEET (1) (2)
COMMUNITY WATER LINE	10	10	25
BUILDING WATER SUPPLY LINE <a href="#">(5)</a>	10	10	10
DRAINAGE CHANNELS	25	25	25
FLOOD IRRIGATION	25	50	50

- (1) For trenches greater than 10 feet deep the minimum setback does not need to be greater than 20 feet.
- (2) Minimum of 10 feet from structures not supported by concrete foundation or slab (i.e.; mobile homes and above ground swimming pools). Buildings with basements may require greater setback.
- (3) Public water supply wells shall be located at least 150 feet from a sewage force main.
- (4) Watercourses sealed to prevent infiltration/exfiltration of water may reduce the setback to 25 feet if approved by the [Health Authority](#). [Pond liners](#) [Watercourse liner must be a minimum of 30 mil to qualify](#).
- (5) [Reduced setback from water line to building sewer line is allowed with Health Authority approval, provided secondary containment \(sleeving\) is in place on either the water line or the building sewer line. Must be inspected, additional inspection fees may apply.](#)

- 040.105** The [Health Authority](#) shall not approve parcel maps or subdivision maps predicated upon on-site sewage disposal systems when it is evident that such sewage disposal will cause a rise in the maximum groundwater table surface to less than a minimum permitted vertical distance under these regulations.

- 040.115** Where conditions warrant, the [Health Authority](#) may increase the setback distance from watercourses, drainage channels and/or groundwater.
- 040.120** New septic systems, on lots in areas where the nitrate concentration in groundwater has been identified as elevated and/or increasing, may be required to reduce the concentration of nitrates produced from the on-site sewage disposal system.

## **SECTION 050**

### **SEWER LINES**

- 050.005** The building sewer and leach field perforated pipe shall be ASTM F810-85 polyethylene or ASTM D2665-88 PVC or D2661-87a schedule 40 ABS or of materials approved by the [Health Authority](#).
- 050.010** The size of the building sewer will be determined on the basis of the number of fixture units served. The minimum inside diameter shall be four (4) inches.
- 050.015** The building sewer ~~shall be laid on a slope of not less than one-fourth (1/4) inch per foot. and~~ shall be laid on a slope of not less than one-eighth (1/8) inch per foot. ~~and~~ The solid line between the septic tank and disposal field shall be laid on a slope of not less than one-eighth (1/8) inch per foot.
- 050.020** The building sewer and other solid sewer lines shall be uniformly bedded.
- 050.025** An approved ground-level cleanout shall be installed between the building drain and the building sewer of all structures.
- 050.030** Cleanouts are required in the building sewer within two (2) feet of the building foundation and not to exceed ~~fifty (50)~~ one hundred (100) foot intervals to the septic tank, or as required by the [Health Authority](#).
- 050.035** All sewer lines and connection accessories (e.g., cleanouts) shall be rendered watertight by the use of sealing methods appropriate to the type of material used.

## **SECTION 060**

### **SEPTIC TANKS**

**060.005** Any single family dwelling requires the following minimum septic tank capacity:

1. Up to three bedrooms - 1,000 gallons.
2. Four (4) bedrooms - 1,200 gallons.
3. Five (5) to six (6) bedrooms - 1,500 gallons.
4. Seven (7) to eight (8) bedrooms - 2,000 gallons.
5. Additional sizing requirements to be determined by the [Health Authority](#).

**060.010** Additional storage capacity equal to 20% of the liquid volume shall be provided above the liquid level in the tank.

**060.015** Liquid capacity of septic tanks for other than single family dwellings shall be at least 1,000 gallons. The tank capacity will be calculated based upon the number of fixture units served (current U.P.C. Values) and multiplied by three (3). Each fixture unit will be rated at twenty-five (25) gallons per day.

Commented [DK3]: We don't do commercial septic

**060.020** Any septic tank manufactured anywhere but in its permanent location shall be legibly marked with the manufacturer's name and tank capacity.

**060.025** Liquid depths may range from thirty (30) to sixty (60) inches.

**060.030** A two compartment tank shall be used, and the first compartment capacity shall be at least two-thirds (2/3) of the total volume of the tank (see Figure 2). The pass through between compartments shall be located to prevent sludge or grease laden waste to pass through to the second compartment. Unless otherwise approved by the Health Authority, it should be located no lower than 4050% and no higher than 6075% of the liquid depth of the tank.

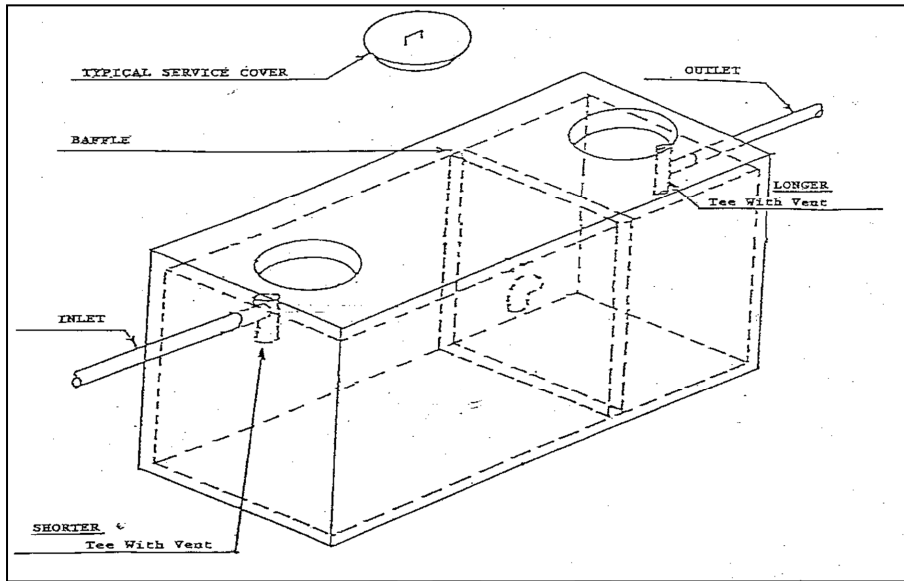
**060.035** The inlet shall be fitted with either:

1. A vented sanitary tee which enters the tank at least three (3) inches above the liquid level;  
or
2. A baffle (See Figure 2).

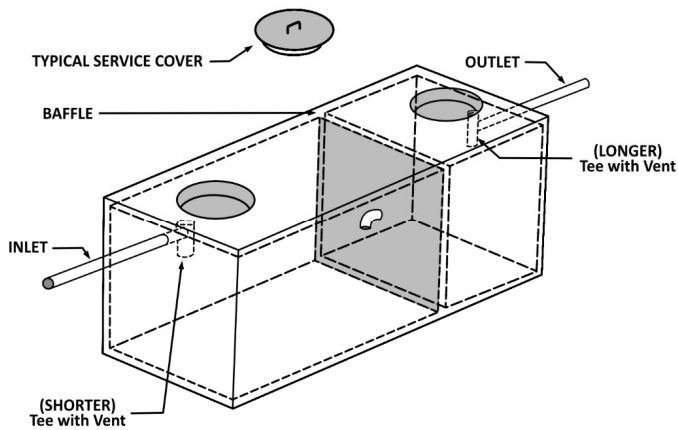
**060.040** The outlet shall be fitted with either a baffle or vented tee.

**060.045** Baffles or tees shall extend a minimum of six (6) inches below the liquid level and in no case greater than 40% of the liquid depth of the tank. The tees shall be installed such that the bottoms of the tees are the same distance below the liquid level of the tank.

**FIGURE 2 - TO BE UPDATED**  
**SEPTIC TANK DETAIL**



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- 060.050** Both inlet and outlet devices shall extend above the liquid level to within one (1) to two (2) inches of the top of the tank.
- 060.055** Inlet and outlet devices shall be sealed watertight where they pass through the septic tank walls.



- 060.060** Plans and design specifications for all built in-place septic tanks shall be submitted to the Health Authority for review and approval prior to construction. Plans shall show all dimensions, reinforcing, structural calculations and other pertinent data as required.
- 060.065** Septic tanks shall be constructed of approved watertight materials as approved by the Health Authority.
- 060.070** The Health Authority may require hydrostatic testing of any septic tank, distribution box, or dosing tank.
- 060.075** All commercially manufactured tanks shall be approved by the Health Authority. Commercially manufactured tanks that include treatment and do not meet the specifications provided above may be allowed with approval of the Health Authority.
- 060.080** Any proposed built in place septic tank and/or holding tank must be designed by an engineer and approved by the Health Authority prior to construction.
- 060.100** These regulations do not preclude the use of treatment devices other than septic tanks. If Ssuch treatment devices are being used as mitigation for inability to meet code, they shall be approved by the SWS Board and District Board of Health through the variance process.
- 060.105** Risers shall be required when the depth of the tank from the final grade is greater than 18 inches. A riser with a minimum internal diameter of twenty-four (24) inches shall be placed over both the inlet and outlet of the septic tank service cover. The risers shall extend to within six (6) inches of the finish grade. The risers shall be covered with a durable, removable lid or lids.
- 060.110** All septic tanks shall have tight fitting, durable and undamaged lids covered by no less than six (6) inches of soil or like material. The use of wooden lids is prohibited.

## **SECTION 070**

### **DISTRIBUTION SYSTEM**

- 070.005** When a distribution box is installed it shall be placed upon a compacted stable sub-grade. The box shall be level and the outlet lines shall be at the same level and at four (4) to six (6) inches above the bottom of the box. The inlet shall be at least one (1) inch above the outlet (See Figure 3).
- 070.010** Manifolds may be used in lieu of a distribution box when plans are submitted, reviewed and approved by the Health Authority. The manifold shall be level to accommodate for even flow and even distribution.
- 070.015** Dosing tanks shall be provided where there are over 500 lineal feet of perforated disposal pipe in the disposal trench (See Figure 4). Dosing tanks may use a siphon or pump to provide dosing. If a pump is used, an audible/visual alarm shall be installed in or on the building being served to indicate when the pump has failed.
- 070.020** Dosing tanks shall be capable of distributing 70% of the interior volume of the perforated disposal pipe(s) each dosing cycle. The dosing cycle shall not occur more than once every four (4) hours.

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- 070.025 All dosing tank siphons shall be automatic. An alternating siphon shall be used when the length of the perforated disposal pipe exceeds 100 feet. Alternating siphons shall discharge to separate disposal trenches.
- 070.030 When dosing tanks are employed, provisions shall be made for venting the disposal trench and approved monitoring tubes shall be installed.
- 070.035 Each dosing tank shall be provided with an access opening over the siphon(s) to facilitate repair or adjustment. All fixtures and facilities shall be installed in such a way that no major repair or work on the equipment will need to be done within the vault/chamber.

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**FIGURE 3 – TO BE UPDATED  
DISTRIBUTION BOX DETAIL**

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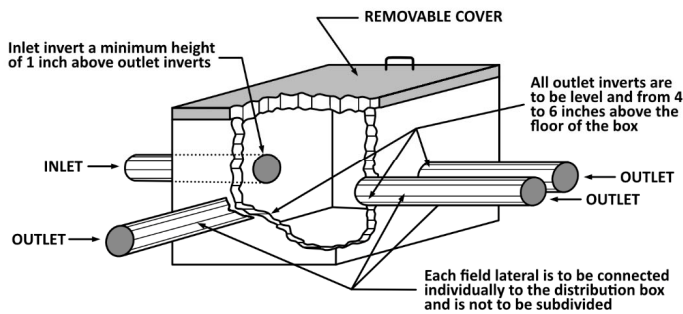
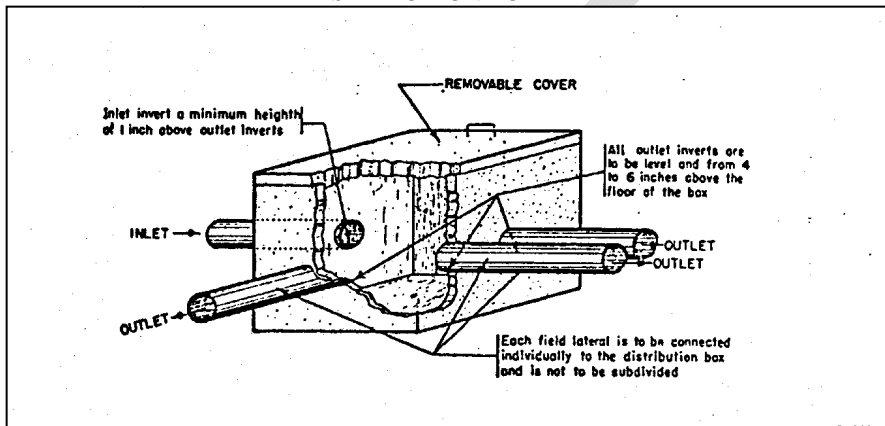
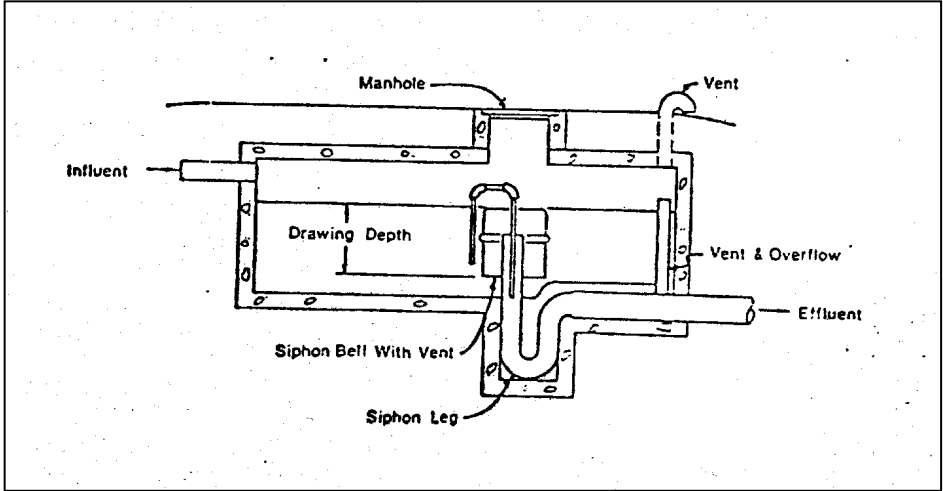
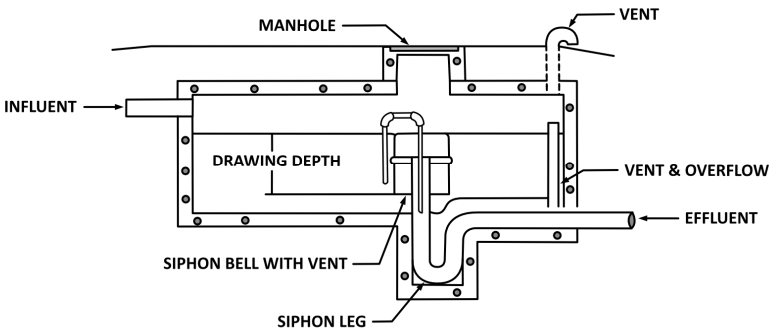


FIGURE 4 – **TO BE UPDATED**  
DOSING CHAMBER WITH SIPHON

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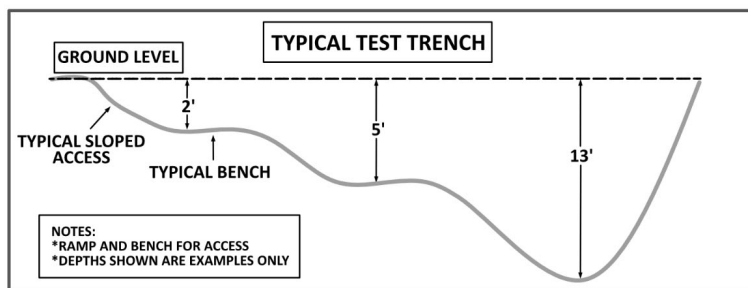
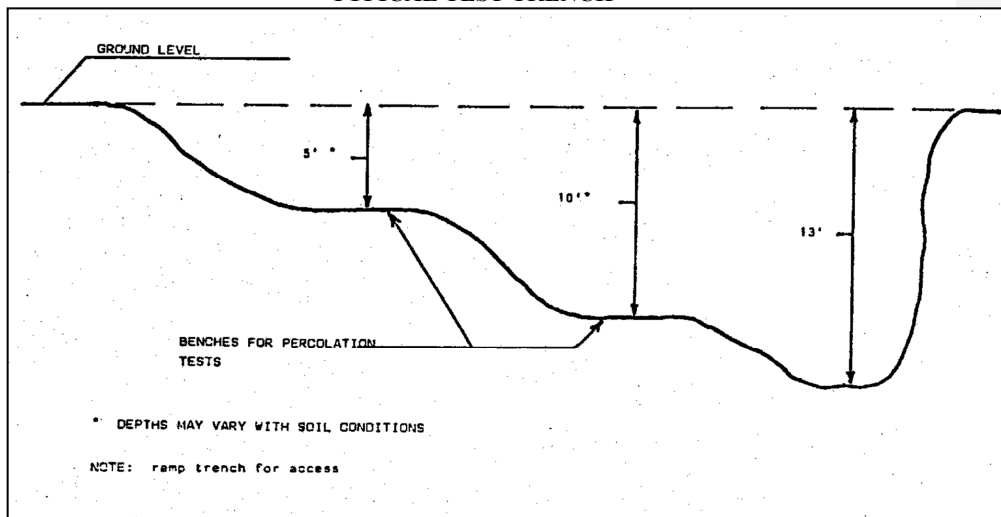
## SECTION 080

### TEST TRENCHES

**080.005** Test trenches shall comply with Figure 5 and the applicable sections of and 080.005 through 080.040.

**FIGURE 5 – TO BE UPDATED**  
**TYPICAL TEST TRENCH**

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- 080.010** Test trenches are required for the proposed primary disposal area and for the proposed replacement disposal area.
- 080.015** Where soil and groundwater conditions are known to be suitable, the [Health Authority](#) may waive the requirement for test trenches.
- 080.020** Test trenches shall be excavated to a minimum depth of thirteen (13) feet unless groundwater or bedrock is encountered at a shallower depth.
- 080.025** The test trench shall be a minimum of twenty-four (24) inches wide and shall be stepped and benched according to Figure 5. The stepped benches shall be constructed in such a way as to make the trench accessible for inspection and testing purposes.
- 080.030** Test trenches shall be excavated at least four (4) feet deeper than the proposed disposal fields or trenches.
- 080.035** All test trenches, regardless of engineer testing, shall be inspected and evaluated by the [Health Authority](#) prior to backfill or percolation test.
- 080.040** All test trenches shall be adequately secured to prevent any safety hazard and shall be properly backfilled not later than two (2) days after all required testing and inspections. Digging, securing and Backfilling of the test trench are the responsibility of the property owner, contractor and/or person constructing the on-site sewage disposal system.

## **SECTION 090**

### **PERCOLATION TEST**

- 090.005** Percolation tests are required prior to the issuance of a construction permit for an on-site sewage disposal system.
- 090.010** A minimum of two percolation tests shall be completed to give a representative percolation rate of the soils, which are proposed for sewage disposal.
- 090.015** Additional percolation tests may be required in a test trench that exhibits confining layers or other geologic variation that may affect treatment and disposal.
- 090.020** The Health Authority shall inspect all test trenches. If after review of the test trench data, the Health Authority determines site characteristics are suitable for wastewater treatment and disposal, the Health Authority may waive the requirement for percolation testing.
- 090.025** All percolation tests shall be performed by or under the supervision of a [State of Nevada Licensed Engineer, Certified Professional Geologist, Certified Environmental Manager or Registered Environmental Health Specialist](#) and be verified/certified by the [Engineer/Certified Professional](#).
- 090.030** The percolation test procedure is not subject to the variance or appeal procedures of these regulations.
- 090.035** The percolation hole shall be excavated into a benched portion of the test trench that is representative of the soils proposed for treatment and disposal.

**Commented [DK6]:** Update to include different name that will include everyone

- 090.040** The diameter of the percolation hole shall be between six (6) to eight (8) inches and may be dug or bored to a depth of twelve (12) inches.
- 090.045** The sides of the percolation hole may be scraped to expose the natural soil surface. The scrapings shall be removed from the hole.
- 090.050** Two (2) inches of one-half (1/2) to three-quarters (3/4)-inch diameter gravel shall be placed in the bottom of the percolation hole to prevent scouring.
- 090.055** Gravel-packed holes may be used as an alternate to the type of holes specified in Section 090.040 above. When gravel packed holes are used, the measured fall in the water level shall be adjusted by computations which include the void ratio of the gravel used. These computations shall be submitted to the [Health Authority](#).
- 090.060** The percolation hole shall be carefully and completely filled with at least twelve (12) inches of clear water. This depth of water shall be maintained for at least four (4) hours except where clay soils are present. A funnel with an attached hose or similar device may be used to prevent water from washing down the sides of the hole. Automatic siphons or float valves may be employed to automatically maintain the water level during the soaking period.
- 090.065** In sandy soils with little or no clay, soaking may not be required. If, after filling the percolation hole twice with twelve (12) inches of water, the water seeps completely away in less than ten minutes the percolation test may proceed immediately.
- 090.070** Except for sandy soils, percolation rate measurements shall be made at least fifteen (15) hours but not more than thirty (30) hours after the soaking period began. Any soil that sloughs into the hole shall be removed and the water level adjusted to six (6) inches above the gravel (or eight (8) inches above the bottom of the hole). At no time during the test may the water level rise more than six (6) inches above the gravel.
- 090.075** Immediately after adjustment, the water level shall be measured from a fixed reference point to the nearest one-sixteenth (1/16) inch at thirty (30) minute intervals. The test shall continue until two (2) successive water level drops do not vary by more than one-sixteenth (1/16) inch. At least three (3) measurements shall be made.
- 090.080** After each measurement, the water level shall be readjusted to the six (6) inch levels. The last water level drop shall be used to calculate the percolation rates.
- 090.085** In sandy soils, or soils in which the first six (6) inches of water added after the soaking period seep away in less than thirty (30) minutes, water level measurements shall be made at ten (10) minute intervals or less for a one (1) hour period. The last water level drop shall be used to calculate the percolation rate.
- 090.090** The percolation rate shall be calculated for each test hole by dividing the time interval used between measurements by the magnitude of the last water level drop. This calculation results in a percolation rate in terms of minutes/per inch.
- 090.095** Engineer stamped copies of all time and water level measurement data shall be submitted to the [Health Authority](#) along with soils logs and plans with accurate locations of the percolation test holes and test trenches. The locations of the percolation test holes shall be shown with dimensions to the closest two property lines. Such copies shall be certified by the engineer. Figure 6 illustrates a typical percolation test data form.

**FIGURE 6 – TO BE UPDATED**  
**TYPICAL PERCOLATION TEST FORM**

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PERCOLATION TEST

Percolation Test Location APN 21-13-42 Test Hole Number 21  
 Depth of Test Hole (Inches) 12" Dia. of Test Hole (Inches) 8"  
 Percolation Test By Mun Date of Test 5/3/94

TIME	TIME INT. MINUTES	MEASUREMENT INCHES	DROP IN WATER LEVEL INCHES	PERCOLATION RATE, MIN. PER INCH	REMARKS
10:00	—	12	—	—	
10:10	10	10 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	5.33	test hole
10:20	1	10 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	6.67	at 4' depth
10:30	1	10 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	8.0	
10:40	1	10 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	8.89	
10:50	1	11	1	10	
11:00	1	11	1	10	

Percolation Rate = 10 Minutes Per Inch.

TEST PIT LOG

DEPTH	LOG	DESCRIPTION
2'		0-1' silty sand
4'		1'-3.5' light brown silty sand
6'		compacted silty, brown
8'		Water table

#### PERCOLATION TEST

Percolation Test Location: APN 21-131-42 Test Hole Number: #1  
Depth of Test Hole (Inches): 12" Dia. Of Test Hole (In): 8"  
Percolation Test by: Murin Date of Test: 5/31/1984

TIME	TIME INT. MINUTES	MEASUREMENT INCHES	DROP IN WATER LEVEL INCHES	PERCOLATION RATE MIN PER INCH	REMARKS
10:00	-	12	-	-	
10:10	10	10 1/8	1 7/8	5.33	Test
10:20		10 1/2	1 1/2	6.67	at 4" depth
10:30		10 3/4	1 1/4	8	
10:40		10 7/8	1 1/8	8.80	
10:50		11	1	10	
11:00	↓	11	1	10	

Percolation Rate: 10 Minutes per Inch

#### TEST PIT LOG

DEPTH	LOG	DESCRIPTION
-		0-1" Top Soil
2"		1"-3.5" Light Brown Gritty Sand
4"		
6"		Compacted Silt, Brown
8"		
-		Water Table

## SECTION 100

### DISPOSAL TRENCHES

**100.005** The septic tank and disposal trench system shall be separated by undisturbed soil at least five (5) feet thick.

**100.010** The bottom of disposal trenches shall be essentially level.

**100.015** Drain Rock Requirements:

1. Washed crushed rock, or similar acceptable drain rock approved by ~~the Health District~~ [the Health Authority](#) and sized according to Table 23; and

~~— Chipped or shredded tires may also be used as a filter media in lieu of drain rock. No more than 10% of the chipped tire material shall have any dimension greater than six (6) inches and no exposed steel wire greater than one half inch long.~~

- a. [Alternative filter media specifically designed for septic usage may be used in lieu of drain rock upon approval by Health Authority.](#)

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2. Washed drain rock must be free from dirt, wood chips, debris, or excessive dust and silt. Unclean drain rock or rock that has a substantial amount of rock smaller than the minimum size will be rejected.
- 4.3. All drain rock must be approved by the Health Authority.

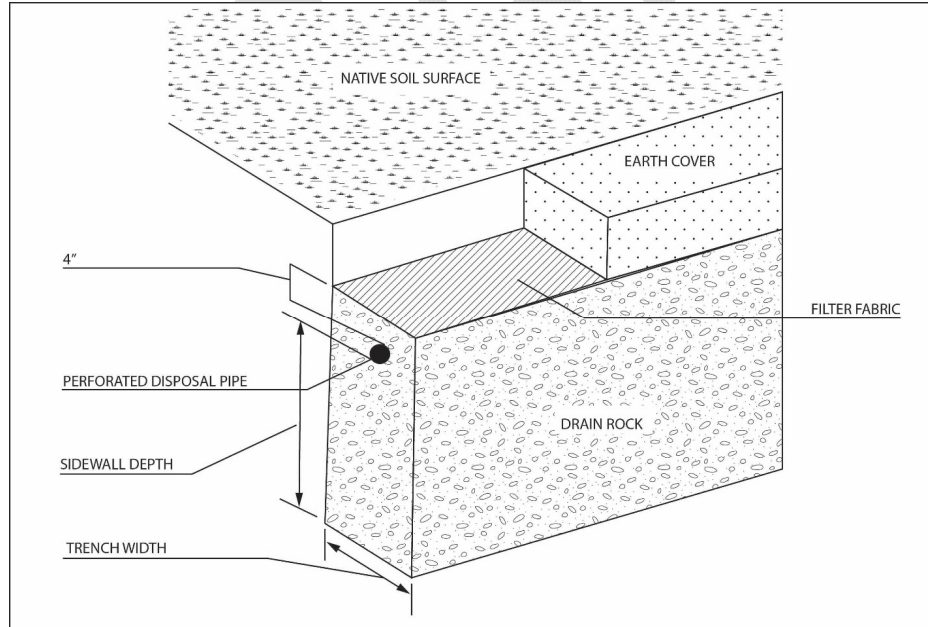
**100.020** Perforated pipe must be placed in such a manner that:

1. All effluent flows uniformly throughout the length of installed perforated pipe;
2. It is uniformly bedded and covered with a minimum of four (4) inches of drain rock consistent with Section 100.015 above; and
3. The drain rock, or alternative filter media, must then be completely covered with filter fabric materials approved by the Health Authority. The filter fabric material must be breathable, permeable, and suitable to prevent clogging of the drain rock during backfill.

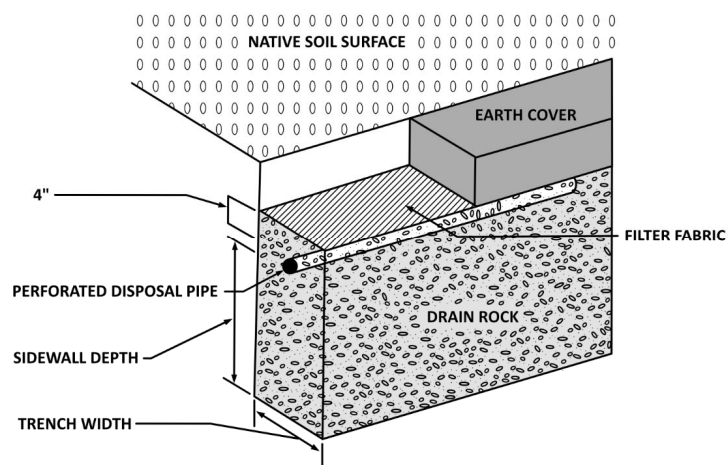
**100.025** Standard disposal trench(es) shall be constructed:

1. In soils with percolation rates of less than sixty (60) min/inch to five (5) min/inch;
2. With a trench depth greater than two (2) feet but not greater than ten (10) feet unless approved by the Health Authority; and
3. In accordance with Figure 7 and Table 23.

**FIGURE 7 – TO BE UPDATED  
STANDARD DISPOSAL TRENCH**



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**TABLE 23**  
**STANDARD DISPOSAL TRENCH REQUIREMENTS**

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	MINIMUM	MAXIMUM
DEPTH OF TRENCH	Greater than 2' below original ground surface	10' (1)
LENGTH OF TRENCH	40'	100'
WIDTH OF TRENCH	18"	48"
GRADE OF PERFORATED DISPOSAL PIPE	2" per 100'	4" per 100'
SEPARATION OF DISPOSAL TRENCHES BASED ON TOTAL DEPTH OF TRENCHES	2 x TRENCH DEPTH, NO LESS THAN 10 FEET (2)	-
DRAIN ROCK SIZE (washed crushed rock)	$\frac{3}{4}" - 1\frac{1}{2}"$	2 $\frac{1}{2}"$
DEPTH OF DRAIN ROCK BELOW PERFORATED DISPOSAL PIPE	18"	18'6"
DEPTH OF DRAIN ROCK ABOVE PERFORATED DISPOSAL PIPE	4"	48"
DEPTH OF EARTH COVER OVER DRAIN ROCK	12"	48"
PERCOLATION RATE	60 minutes/inch	5 minutes/inch (3)
SEPARATION BETWEEN TRENCH BOTTOM AND MAXIMUM SEASONAL GROUNDWATER LEVEL, SATURATED SOIL, IMPERVIOUS STRATA OR BEDROCK	4'	-

(1) Up to 20' with approval of [Health Authority](#).

(2) For trenches greater than 10' deep the minimum setback does not need to be greater than 20'.

(3) Except as allowed by Section 100.105.

**100.030** Standard disposal trench(es) may be placed in engineered fill if:

1. Constructed in soils with percolation rates of sixty (60) min/inch to twenty (20) min/inch;
2. Sized and designed by an engineer based upon actual on-site test data. Original ground interface shall be designed to prevent slippage and to improve percolation. [\(Refer to Figure 2\);](#)

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3. The maximum groundwater table is at least four (4) feet below the original ground surface; and
4. Disposal trenches may be installed in engineered fill which is certified by an engineer and approved by the Health Authority.

**100.040** The Health Authority may require that upon installation of a repair disposal field, the owner of the property shall preserve the failed leach field and install a means of allowing the routing of septic tank effluent flow to either the repair field or the original field.

**100.045** The minimum suitable sidewall absorption area allowed for a three-bedroom single-family dwelling is 600 square feet.

**100.050** For single family dwellings, the suitable sidewall absorption area shall be calculated by using the applicable capacity required by Section 060.005, and by using an application rate equal to five (5) divided by the square root of the representative percolation test rate (See Figure 8).

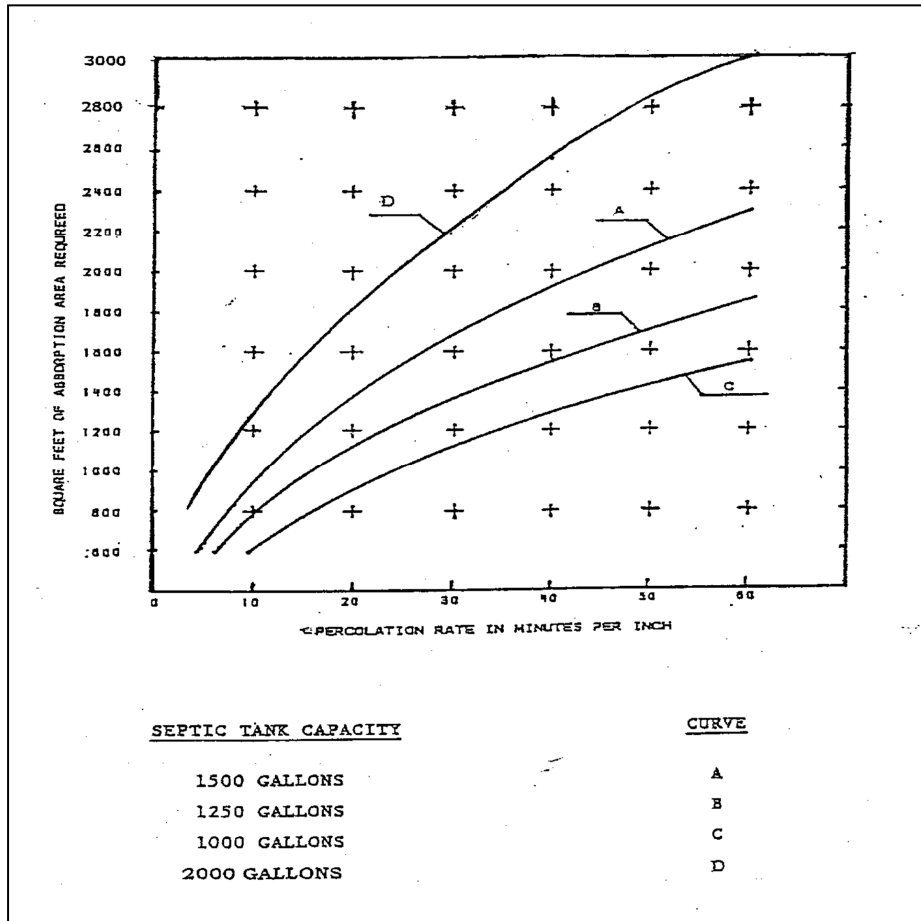
**100.055** For other than single family dwellings, the suitable sidewall absorption area shall be determined on the basis of the minimum required liquid volume of the septic tank required by Section 060.015 and by using an application rate equal to five (5) divided by the square root of the representative percolation test rate (See Figure 8).

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**FIGURE 8 – TO BE ELIMINATED**  
**SIDEWALL AREA CALCULATION CURVES**

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**100.060** A separation of at least four (4) feet of dry soil is required between the bottom of the standard disposal trench and the maximum groundwater table, bedrock or impervious strata.

**100.065** Except when a sand filter bed is to be installed, when a percolation test shows a rate faster (less than) 5 minutes per inch, the vertical setback to maximum groundwater table shall be computed by the following formula:

$$\text{Setback (ft)} = \frac{20}{(p)} \text{ where } p = \text{percolation rate (mpi)}$$

The vertical setback to the maximum groundwater table shall be at least 2 feet from the bottom of a sand filter bed. The maximum groundwater table depth shall be determined to the satisfaction of the Health District staff.

**100.070** All on-site disposal fields shall incorporate a 4-inch monitoring tube in the disposal trench to permit measurement of standing water in the disposal field. The pipe shall be capped and placed so that measurement can be made to the bottom of the trench from the ground surface without excavation.

**100.075** Prefabricated chambers may be approved provided the design meets all Health Authority requirements. Only one chamber row per trench is allowed. Bed Systems are not acceptable.

**100.077** Acknowledging that drip systems technologies are becoming more accepted and commonplace, NNPH will develop a design manual and upon completion, allow drip systems according to the manual. Drip systems that are NSF 40 or 245 certified, as allowed by sections 100.110-100.130, or are accepted by the manufacturer as part of a NSF 40 or 245 certified treatment system shall be allowed according to the manufacturers specifications.

#### **ENGINEERED SAND FILTER SYSTEMS**

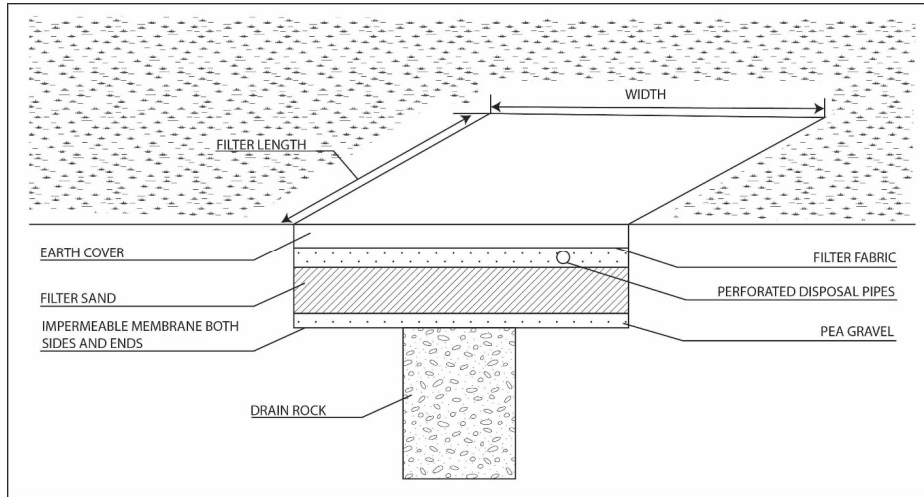
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**100.080** Engineered on-site sewage disposal systems shall be designed by an engineer and submitted to the Health Authority for review and approval. Pressurized distribution lines are preferred to ensure equal distribution to entire filter surface area.

**100.085** The design engineer shall perform such inspections and tests as are needed to certify that the system was constructed in compliance with the approved plans and specifications and all materials and sand meet these regulations. A report of such inspection activities and results shall be submitted by the engineer to the Health Authority for final sign off.

**100.090** Engineered "T" sand filter disposal trench(es) in fractured bedrock or when the percolation rate is between 60 minutes per inch and 90 minutes per inch shall be constructed in accordance with Figure 9 and Table 34 and sized and designed by an engineer based upon actual on-site test data. Unless it can be demonstrated by the design engineer that the effluent will receive a minimum of 24" of soil treatment before reaching groundwater, 24" of engineered fill or other suitable mitigation as approved by the Health Authority is required between the base of the sand filter and fractured rock.

**FIGURE 89**  
**ENGINEERED "T" SAND FILTER DISPOSAL TRENCH**



**TABLE 34  
ENGINEERED SAND FILTER REQUIREMENTS**

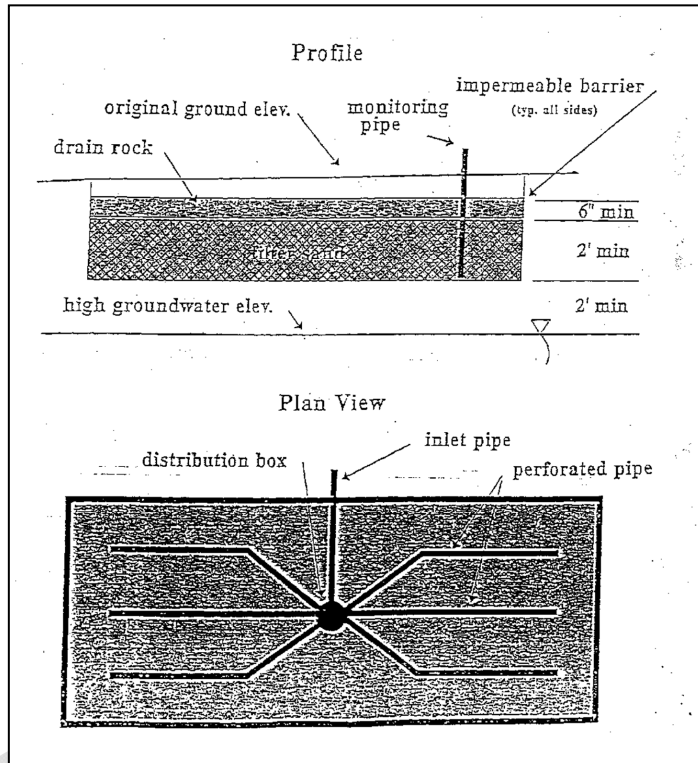
	MINIMUM	MAXIMUM
DEPTH OF TRENCH (1)	5'	20'
LENGTH OF TRENCH (1)	40'	100'
WIDTH OF TRENCH (1)	2'	24'
GRADE OF PERFORATED DISPOSAL PIPE	2" per 100'	4" per 100'
SEPARATION OF PERFORATED DISPOSAL PIPE CENTER TO CENTER	2'	5'
DRAIN ROCK SIZE	3/4" to 1 1/2" open graded	1 1/2" to 3" open graded
DEPTH OF DRAIN ROCK BELOW PERFORATED DISPOSAL PIPE (1)	6"	N/A
DEPTH OF DRAIN ROCK ABOVE PERFORATED DISPOSAL PIPE (1)	4"	N/A
DEPTH OF EARTH COVER	12"	24"
PERCOLATION RATE	90 min/inch	5 min/inch
SIZE OF SAND FILTER MATERIAL	0.3 mm	0.6 mm
DEPTH OF SAND FILTER MATERIAL	24"	-
IMPERMEABLE MEMBRANE THICKNESS	10 mil	30 mil
DEPTH TO MAXIMUM GROUNDWATER TABLE	24"	N/A
DEPTH TO BEDROCK/IMPERVIOUS SOILS	4'	N/A
PEA GRAVEL SIZE	3/8" x 1/2"	1/2" x 1.2"
DEPTH OF PEA GRAVEL BELOW FILTER SAND (1)	6"	12"

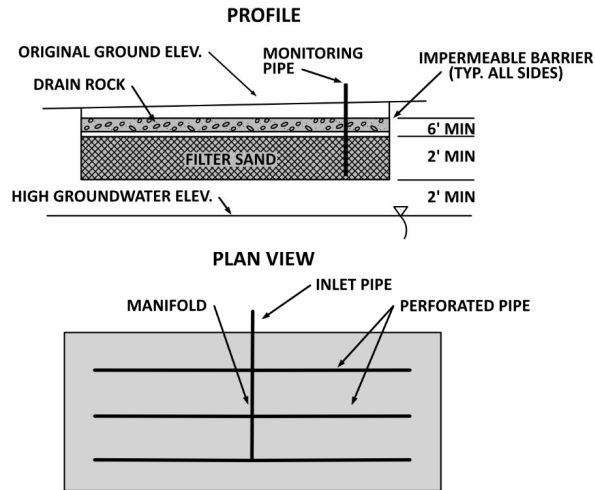
(1) T-sand filter only.

**100.100** Sand filter bed disposal systems in high groundwater areas shall be constructed in accordance with Figure 10 and Table 34 and sized and designed by an engineer based upon actual on-site test data. The base of the sand filter shall be considered as "sidewall absorption area" as used in Sections 100.050 and 100.055. Sand filter beds systems are prohibited in areas where the maximum groundwater table is less than two (2) feet below the original ground surface, unless appropriate mitigation measures such as engineered fill are used to raise-meet the minimum 24" required separation to groundwater.



**FIGURE 9- TO BE UPDATED40**  
**SAND FILTER BED**



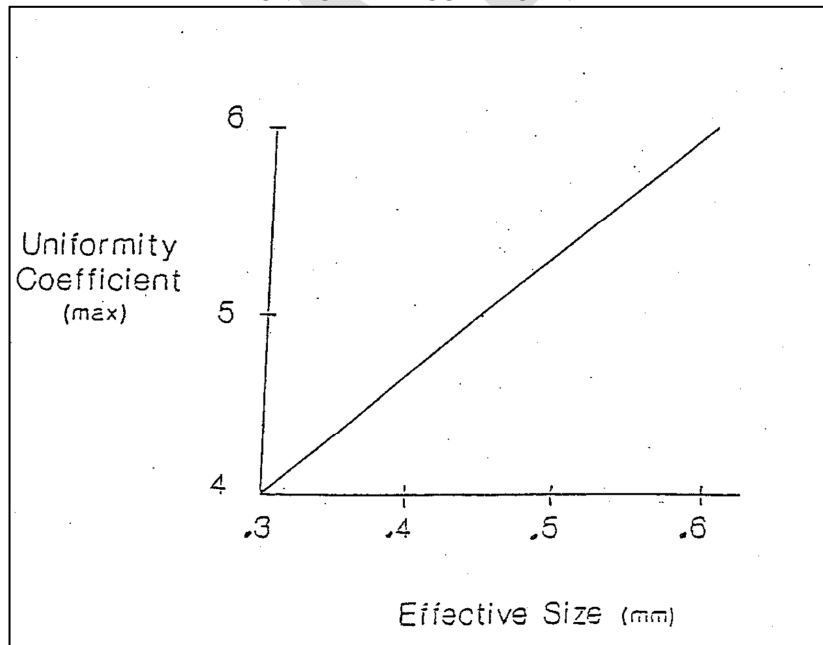


**100.105** All sand filter systems shall be:

1. Constructed with sand which:
  - a. Has an effective size ( $D_{10}$ ) between 0.3 (#50 sieve approximately) and 0.6 millimeters (#30 sieve approximately) with 95% passing ( $D_{95}$ ) the #4 sieve.
  - b. Has a uniformity coefficient ( $D_{60}/D_{10}$ ) ~~of 4 or below in accordance with Figure 11.~~ The Health District may approve uniformity coefficient of up to 6 based on material availability and agreement of design engineer.
  - c. Except for gradation, meets all other American Society for Testing and Materials requirements for concrete sand.
  - d. OR as approved by the Health Authority. Petitions for alternate gradations may be submitted to NNPH for review. Alternate gradations petitions must demonstrate ability to adequately treat, as well as or better than approved gradation, sewage. Demonstration of treatment ability must be based on actual testing data. All final approvals of alternate gradations must be approved by the Sewage, Wastewater, and Sanitation Advisory Board.
2. A sample of the actual sand proposed for use in the sand filter shall be tested by an engineering consultant or a recognized testing facility and certified as meeting the requirements of 1.a. and 1.b. above. A letter from the design engineer is required stating that the sand meets the requirements of 1.a. and 1.b. above.
3. The sand bed shall be a minimum of two (2) feet in depth.
4. The filter sand shall be settled by flooding before the drain rock and distribution pipe are laid.

5. The maximum dosing rate for the sand filter shall be 1.33 gallons per square foot of filter plan area per day.
6. A dosing siphon or a pump shall provide intermittent dosing. Each dosing cycle shall provide a quantity of effluent equal to approximately 70% of the perforated pipe distribution line capacity. Venting shall be provided to allow proper functioning of the dosing system.
7. An impermeable membrane shall be provided between the sand filter and the adjacent earth walls. There shall be a minimum layer of plastic ten (10) millimeters thick (0.010 inch) extending from the ground surface to the bottom of the sand layer.
8. The perforated distribution line shall be placed in drain rock that extends from four (4) inches above the pipe to six (6) inches below the pipe.
9. The upper gravel layer shall be covered with a minimum of one (1) foot of mounded earth. A layer of filter fabric shall separate the earth cover and the drain rock.
10. For single family dwellings the adsorption area for a sand filter shall be computed by dividing by three (3) the area obtained from the method described in Section 100.050.

**FIGURE 11 – TO BE ELIMINATED**  
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## ALTERNATIVE SEPTIC SYSTEM TECHNOLOGIES

**100.110** Septic technologies that have been certified to NSF/ANSI standard 40 (residential septic) and NSF/ANSI standard 245 (nitrogen reduction) that do not specifically meet these regulations will be reviewed by the Health Authority. If approved, utilization of any approved technologies must follow manufacturer's specifications, with the exception of any sizing that is less than required by these regulations. The Health Authority may allow sizing according to manufacturer's specifications or may require that sizing be according to these regulations. A variance may be required. Surface application is prohibited.

**100.120** Septic technologies that have been certified to NSF/ANSI standard 245 may, upon approval of the Health Authority, be allowed to have a reduction in the vertical separation to groundwater to 2'. In no instance will a reduction to the vertical separation to groundwater that is less than manufacturer's recommendation be approved.

**100.130** The Health Authority may require an operation and maintenance plan for use of alternative system technology. The plan must be approved by the Health Authority and will be required to be recorded to the title of the property. Failure to follow the operation and maintenance plan will be considered a violation of these regulations. Maintenance records will be required to be maintained and provided to the Health Authority upon request. In the event of a failure to operate or maintain the system according to the plan or lack of system function, the Health Authority may require sampling and/or impose restrictions on the property as needed.

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## **SECTION 110**

### **HOLDING TANK**

- 110.005** The minimum liquid capacity of a holding tank is 1,500 gallons.
- 110.010** Holding tanks shall not serve more than fourteen (14) fixture units as defined in the Uniform Plumbing Code.
- 110.015** An audible/visual alarm shall be installed in the building being served and shall be set to go off when the wastewater in the holding tank reaches a level no greater than 75% of its capacity.
- 110.020** Holding tanks are prohibited for residential use, without specific written approval from the Health Authority.
- 110.025** A holding tank shall be installed in such a manner that it will not float when empty and/or when the groundwater is at its maximum level.
- 110.030** Holding tanks shall meet septic tank specifications.

## **SECTION 120**

### **OTHER PROVISIONS**

- 120.005** All sewage, greywater and wastewater management methods not specifically authorized by these regulations shall be submitted for review and approval, prior to commencement of construction, except in public health emergencies declared by the District Health Officer.

- 120.010** If any sewage and wastewater processing and disposal system governed by these regulations fails, and the failure presents a significant and continuing threat to public health, the District Health Officer may declare a public health emergency. Once declared, the District Health Officer may permit emergency sewage and wastewater processing and disposal methods not otherwise permitted by these regulations. These emergency methods may remain in use until the District Health Officer has lifted the declaration of a public health emergency.
- 120.015** The Health Authority may prohibit or curtail the use of any on-site sewage disposal system that, in the opinion of the Health Authority, is or is determined to contribute to a public health hazard or risk.
- 120.020** No person may permit any sewage, wastewater or greywater to be deposited, discharged or disposed of in any manner not approved by the Health Authority.
- 120.025** Any surface discharge of sewage shall be immediately cleaned up and disinfected in an approved manner, and in a time frame required by the Health Authority. The property owner of the on-site sewage disposal system or his agent is ultimately responsible for the clean up of the surface discharge.
- 120.030** Cesspools are prohibited. Installation of a pit privy shall be approved for situations where running water is not available and/or if the building being served is not intended for full time occupancy, such as a hunting cabin. Pit privies must meet standard vertical separation to ground water and other limiting layers, as well as all applicable horizontal setbacks. A structure must be constructed around the pit privy to prevent public exposure must be constructed. Sizing of pit is to be between 50 and 150 cubic feet. Abandonment of the pit once full requires a minimum of 1' of compacted earth over the top. Installation, Aabandonment and replacement of a pit privy requires a permit from Health Authority
- 120.035** Only one on-site sewage disposal system may be installed upon a one acre parcel served by an on-site water well.
- 120.040** An on-site sewage disposal system shall be located entirely upon the parcel upon which the building it serves is located
- 120.045** The Health Authority shall not approve subdivisions or parcel maps if more than 10% of the lots do not meet, in all respects, the requirements of these regulations. A variance submittal and approval by the Health Authority is required for these lots.
- 120.050** Prior to the abandonment of a septic tank, the contents shall be completely pumped out. After inspection or review of the pump receipt by the Health Authority, the tank shall be rendered inoperable. Tanks may be rendered inoperable by crushing the top of the tank and at least one side and then backfilling, being filled with concrete slurry or being removed, filled with earth, gravel or other material approved and inspected by the Health Authority. The required inspections include the inspection of the septic tank after it is pumped out or review of the pump receipt, and after the tank is removed or filled with earth, gravel or other material observation of the tank being rendered inoperable or removed.
- 120.055** If the septic tank is to be removed, the permit application must include a written disposal plan that describes how the tank will be removed and transported to the landfill or approved disposal site. The contents shall be completely pumped out and inspected before the tank is removed.
- 120.060** Grease interceptors may be required for all commercial food services, laundering operations and other high volume grease generators as determined by the Health Authority. The discharge

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from three-stage design interceptors may be routed around the septic tank. All other interceptor discharge shall be routed through the septic tank.

- 120.065** Properly functioning on-site sewage disposal systems are permitted until they fail or they are in violation of their annual operating permit conditions.
- 120.070** The design of a repair of an existing system which fails may be exempt from various non-obtainable portions of these regulations, if the Health Authority determines that the construction and operation of the system will not adversely impact public health, safety or the environment, and the construction and operation is approved by the Health Authority.
- 120.075** The construction of additional buildings to be used as living quarters as permitted by building and zoning codes may be served by an on-site sewage disposal system according to the following:

1. If the additional building is designated as a separate single family dwelling by the appropriate determining agency, an individual septic tank, in addition to the one for the existing single family dwelling is required. This separate dwelling can have its own individual disposal field or it can use a disposal field in common with the existing dwelling as long as the combined field is sized according to the total volume of the tanks or the total number of bedrooms. ~~The Health District~~ Northern Nevada Public Health may require that the maximum allowable bedrooms between the two dwellings, based on the sizing of the disposal field, be recorded to the title of the property. An additional building shall be defined as a "dwelling" if it has a bathroom(s) and/or toilets, living area, and a kitchen. A "kitchen" is defined as an area that may be used for food preparation and which includes any combination of four (4) of the following items unless otherwise determined by the Health Authority:

The minimum acreage required per dwelling served by a septic system is one acre. Any existing Building permits approved prior to adoption of regulation will be honored unless the permit expires.

- a. ~~A large or compartmental sink.~~
- b. ~~Counters and cabinets suitable for food preparation and storage.~~
- c. ~~Electrical connection and adequate space for a refrigerator.~~
- d. ~~Hood or venting apparatus.~~
- e. ~~Natural gas stub and/or 220 volt outlet.~~

~~1.2.f. Stubbed in plumbing for a future kitchen.~~

Separate dwellings may occupy one parcel of land provided that the lot size is at least equal to the number of dwellings times the minimum lot size required by sections 040.005 through 040.020. For example, two dwellings utilizing an onsite well require a minimum of two (2) acres if located in an area where ground slope is less than 5%. ~~2. An additional building without a kitchen is designated as "guest quarters" and may be served by an on-site septic system according to the following guidelines:~~

- a. ~~Guest quarters can connect to the septic tank and disposal field serving the main dwelling provided that the tank and disposal field is sized for the total number of bedrooms.~~

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b. ~~Guest quarters can have their own septic system provided that the minimum size of the septic tank is one thousand (1,000) gallons and the disposal field is sized according to the tank volume and number of bedrooms.~~

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~~The addition of guest quarters will require conformance with sections 040.005 through 040.020 for only one (1) dwelling. In the above example, if the second living area did not have a kitchen, only a one (1) acre parcel would be required.~~

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**120.080** Discharge of a waste stream from any water treatment device shall be considered separate from the sewage flow. The method of disposal of this waste stream shall be designed by an engineer to prevent a negative impact on the sewage treatment and disposal system and to prevent a health hazard. The [Health Authority](#) shall approve the method of disposal of this waste stream.

## **SECTION 130**

### **GREYWATER SYSTEMS**

- 130.010** Greywater systems are permitted as a supplemental means of wastewater disposal. Any greywater system shall conform to these regulations and be installed as an addition to the standard method of sewage disposal required in these regulations. No reduction in the size of the standard system as required in these regulations will be allowed due to the installation of a greywater system.
- 130.015** Construction of a greywater system shall require an on-site sewage disposal construction permit from the Health District. The on-site sewage disposal construction permit application and plan shall conform to Section 020.
- 130.020** No greywater may be applied above ground or to other exposed surfaces. Disposal of greywater shall be underground using small, shallow leach fields or other underground methods approved by the Health District. Plants to absorb the greywater shall be a required as part of the greywater system.
- 130.030** Pipes conveying greywater to underground disposal shall be buried at least six inches deep.
- 130.035** Greywater drainage systems shall be installed in compliance with all applicable requirements of the Uniform Plumbing Code. The greywater drainage system must include the valves necessary to route the greywater through the septic tank and disposal field and protect the system from freezing during the winter months or when not in use.
- 130.040** Perforated disposal pipe shall be at least 5 feet from water service lines and buildings, and 25 feet from water wells and watercourses.

## **SECTION 140**

### **SEPTAGE AND WASTEWATER PUMPING CONTRACTORS**

- 140.005** Any person and/or business engaged in the operation of removing and disposing of the contents of septic tanks, holding tanks or other sewage holding treatment or disposal facilities shall obtain an annual Permit to Operate from the [Health Authority](#).
- 140.010** A separate permit is required for each vehicle operated. The permit shall be within the vehicle at all times the vehicle is in operation.

- 140.015** A fee as set by the District Board of Health will be collected prior to the issuance of the annual Permit to Operate.
- 140.020** An application for a permit must include the operational plan. At a minimum, the plan must include the following items:
1. Area to be served;
  2. Type of waste to be hauled and procedures for handling such waste to the point of disposal;
  3. Location of all discharge/disposal points;
  4. License and vehicle number of each vehicle;
  5. Wastewater capacity of each vehicle; and
  6. A location suitable to rinse, wash and contain all wastewater from the vehicle approved by the Health Authority.
- 140.025** Prior to issuance of the annual Permit to Operate, the [Health Authority](#) shall inspect each vehicle.
- 140.030** Each vehicle shall meet the following requirements:
1. The name, address and phone number of the contractor shall be on each side of the permitted vehicle.
    - a) All required information must be prominently displayed utilizing a minimum of four (4) inch lettering on each side of the vehicle.
  2. Each vehicle must be equipped with a watertight tank and shall be maintained in a clean condition and such a manner to prevent all potential leaks.
  3. All accessory equipment (e.g., pumps, hose lines, etc) must be rinsed and maintained to prevent any potential leakage.
  4. An approved shut-off system shall be provided and maintained for each permitted vehicle.
- 140.035** Records concerning volume of waste, the number of customers served and geographic location of customers shall be maintained by the contractor for a minimum of three (3) years. These records shall be available for review upon request by the Health Authority.
- 140.040** The contractor shall provide an approved area suitable for the storage and maintenance of all equipment utilized in his operations. This area shall be maintained in a neat, clean condition at all times. There shall be no public access to this area.
- 140.045** Where sewage, septage, liquid wastes and wastewaters are stored, transferred, disposed of or undergo processing, effective odor control measures shall be employed.



- 140.050** If an accidental discharge or spill occurs, the Sewage and Wastewater Pumping Contractor shall immediately clean the spilled materials, disinfect the area of the spill and report the spill incident to the [Health Authority](#).
- 140.055** When wastewater is transferred from one vehicle (container) to another vehicle (container) it shall be done in a manner that prevents spillage.
- 140.060** Vehicles shall be constructed of easily cleanable, durable, nonabsorbent materials.
- 140.065** The drain valve shall be equipped with a cap that remains in place on the drain valve when the valve is not in use.
- 140.070** The operator must submit an operations plan that provides a method for regular cleaning of equipment approved by the Health Authority.
1. Any changes to the operation plan, change in ownership, or change in the location of operations will require a new permit application to be submitted and approved by the [Health Authority](#).
- 140.075** Liquid waste shall not be transported in an open body vehicle unless transported in approved, portable containers.
- 140.080** All portable containers shall be watertight.
- 140.085** The discharge of any waste governed by these regulations shall be accomplished in an approved manner and at an approved location.

## **SECTION 150**

### **NON-SEWERED TOILET PERMIT REQUIREMENTS**

- 150.005** Any person operating a non-sewered toilet service shall obtain an annual Permit to Operate from the Health Authority.
- 150.010** A fee as set by the District Board of Health will be collected prior to the issuance of the annual Permit to Operate.
- 150.015** No service may be operated without a valid Permit to Operate.
- 150.020** The Health Authority will not issue a Permit to Operate if the applicant does not meet the requirements of these regulations.
- 150.025** The [Health Authority](#) may inspect the non-sewered toilet service operation area at least annually to ensure compliance with these regulations.
- 150.030** The person operating the service shall provide an approved area suitable for the storage and maintenance of all equipment utilized for operations. This area shall be maintained in a neat, clean condition at all times. Public access to the area is prohibited.
- 150.035** A pressurized steam cleaner, a pressurized hot water microspray or other approved equipment is required for cleaning the non-sewered toilets and ancillary equipment.
- 150.040** If a dump station is utilized on site it shall comply with Section 150 of these regulations.

**150.045** At construction sites, special events, mining operations and other places where approved permanent sewage disposal facilities are not available or are inadequate, non-sewered toilets shall be provided in accordance with Table 45 or 56.

**TABLE 45  
NON-SEWERED TOILETS - EXTENDED USAGE**

TOTAL NUMBER OF WORKERS	MINIMUM NUMBER OF UNITS * (8 hr. day/40 hr. week)
1 to 15	1
16 to 30	2
31 to 51	3
52 to 72	4
73 to 93	5
Over 93	1 Additional Facility for Each Additional 20 Workers

\*Based on one weekly service

**TABLE 56  
NON-SEWERED TOILETS – SPECIAL EVENTS**

# OF PEOPLE	NUMBER OF HOURS FOR EVENT									
	1	2	3	4	5	6	7	8	9	10
0 – 500	2	4	4	5	6	7	9	9	10	12
1,000	4	6	8	8	9	9	11	12	13	13
2,000	5	6	9	12	14	16	18	20	23	25
3,000	6	9	12	16	20	24	26	30	34	38
4,000	8	13	16	22	25	30	35	40	45	50
5,000	12	15	20	25	31	38	44	50	56	63
6,000	12	15	23	30	38	45	53	60	68	75
7,000	12	18	26	35	44	53	61	70	79	88
8,000	12	20	30	40	50	60	70	80	90	100
10,000	15	25	38	50	63	75	88	100	113	125
12,500	18	31	47	63	78	94	109	125	141	156
15,000	20	38	56	75	94	113	131	150	169	188
17,500	22	44	66	88	109	131	153	175	197	219
20,000	25	50	75	100	125	150	175	200	225	250

**150.050** For construction sites and mining operations non-sewered toilets shall be located such that the workers shall not have to travel more than 300 feet to use the facilities.

**150.055** Sewage from non-sewered toilets may be disposed of only in an approved manner.

**150.060** When a non-sewered toilet is removed from service it shall be thoroughly cleaned and sanitized by steam, pressurized hot water sanitizing agent or other approved means prior to re-use.

**150.065** Non-sewered toilets shall not be transported when there is any material contained in the storage tank. Exception, non-sewered toilets permanently affixed to a trailer or other mobile structure where the design and intent is to transport the non-sewered toilet with materials contained in the holding tank may be approved for use.

- 150.070** The person and/or business operating the service shall provide additional back-up trucks and equipment adequate to maintain the frequency of service of all non-sewered toilets committed to use.

#### **NON-SEWERED TOILET CONSTRUCTION REQUIREMENTS**

- 150.075** A non-sewered toilet shall be constructed of smooth, durable, non-absorbent, and easily cleanable materials.
- 150.080** A non-sewered toilet shall afford privacy to the user and protection from the elements and shall be designed to prevent entry of rodents and insects. All openings to the outside shall be enclosed with metal mosquito screening. The door shall be self-closing and a vent or window shall be provided for light.
- 150.085** Non-sewered toilets specially designed for use in high-rise construction may be exempt from non-attainable portions of this section with approval of the [Health Authority](#).
- 150.090** The walls and ceiling of the structure shall be light in color and capable of withstanding repeated washing, scrubbing and cleaning.
- 150.095** The storage tank shall be enclosed within the structure, properly vented, watertight and maintained in good repair.
- 150.100** The bottom of the structure shall be designed to provide easy access to the storage tank for cleaning and maintenance.
- 150.105** The toilet seat shall be commercially manufactured, smooth, impervious, and installed so as to be easily cleaned or replaced.
- 150.110** The structure shall contain adequate space for the user with a minimum width or depth of three (3) feet, six (6) inches.
- 150.115** Urinals shall be made from durable, non-corrosive, impervious material capable of withstanding repeated washing, scrubbing and sanitizing. Urinals shall be designed to minimize splashing and shall be finished with smooth surfaces and proper slopes so that they may be easily cleaned and readily drained.
- 150.120** A closed device for holding toilet paper shall be provided.
- 150.125** Toilet paper shall be available at all times.
- 150.130** The structure shall be clearly and legibly marked with the name and telephone number of the service.
- 150.135** The interior of the structure and the tank shall be cleaned and sanitized at least once every seven (7) days while the toilet is in use or more frequently as needed due to usage and to maintain the structure in a clean, odor-free condition.
- 150.140** If the frequency of the cleaning schedule is increased, the [Health Authority](#) may reduce the number of non-sewered toilets required by Table [45](#) or [56](#).
- 150.145** After cleaning, the tank shall be filled with a solution which effectively controls odors.
- 150.150** Non-Sewered Vault Toilets must be:

1. Constructed in such a manner to contain and prevent any sewage leak;
2. Designed to be serviceable and allow access for external sewage removal;
3. Effectively vented; and,
4. Constructed in accordance with current building codes and approved by the [Health Authority](#).

## **SECTION 160**

### **DUMP STATIONS PERMIT REQUIREMENTS**

- 160.005** Any person operating a dump station shall obtain an annual Permit to Operate from the [Health Authority](#).
- 160.010** A fee as set by the District Board of Health will be collected prior to the issuance of the annual Permit to Operate.
- 160.015** An application for a permit shall specify the:
1. Area to be served;
  2. Type of waste to be accepted;
  3. Location of all discharge points; and
  4. Written approval of the treatment plant operator receiving such wastes.
- 160.020** No dump station may be operated without a valid Permit to Operate.
- 160.025** The Health Authority will not issue a Permit to Operate if the applicant does not meet the requirements of these regulations.
- 160.030** The Health Authority may inspect the dump station operation area at least annually to ensure compliance with these regulations.
- 160.035** The operator shall provide an approved area suitable for the storage and maintenance of all equipment used in the operations.
- 160.040** The dump station shall be equipped with a watertight cover. The cover shall remain in place on the drain opening when the opening is not in use.
- 160.045** The operator shall provide for regular, approved cleaning of the dump station.
- 160.050** Waste governed by this Section shall be discharged in an approved manner and at an approved location.
- 160.055** Effective odor control measures shall be employed at the disposal site.
- 160.060** If an accidental discharge or spill occurs, the operator shall immediately clean the spilled materials, disinfect the area of the spill and report the spill incident to the Health Authority.

**160.065** All discharges into the dump station drain shall be accomplished through a dump hose unless the operator has received prior approval for another discharge method.

**160.070** All plans for the construction of a dump station shall be submitted to the [Health Authority](#) for review, comment, change and/or approval prior to the start of construction.

#### **DUMP STATION CONSTRUCTION REQUIREMENTS**

**160.075** All plumbing shall be done in accordance with the Uniform Plumbing Code that is current at the time construction occurs.

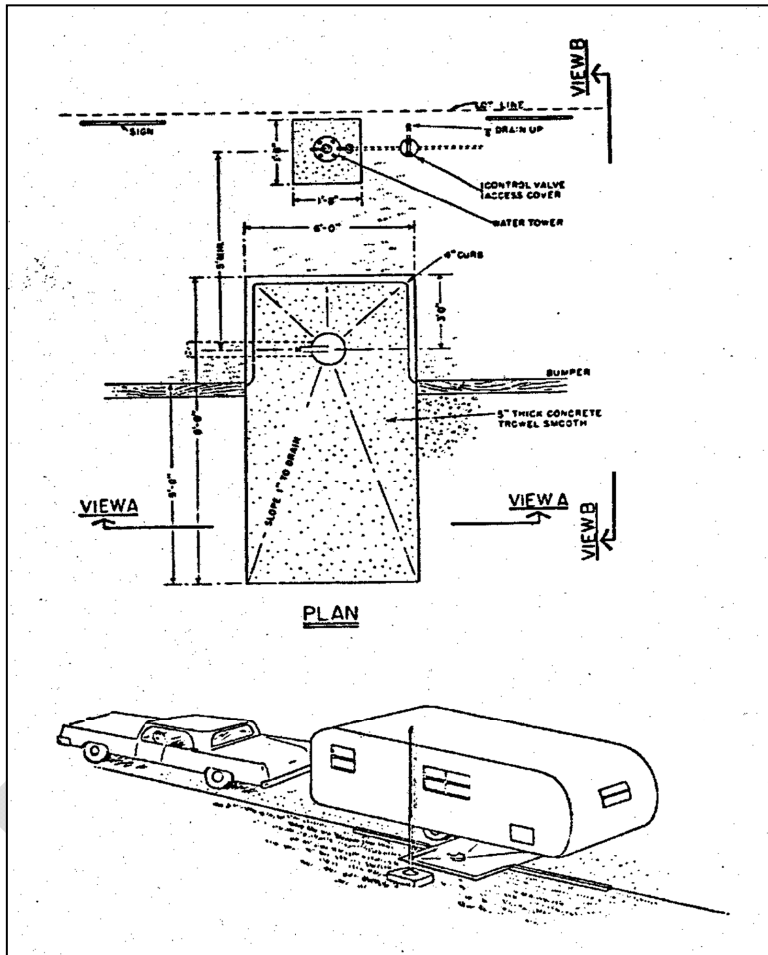
**160.080** The dump station shall have wash down water on site. This wash down water service shall be equipped with an approved vacuum breaker or anti-siphon device.

**160.085** The dump station area shall be posted with approved information signs.

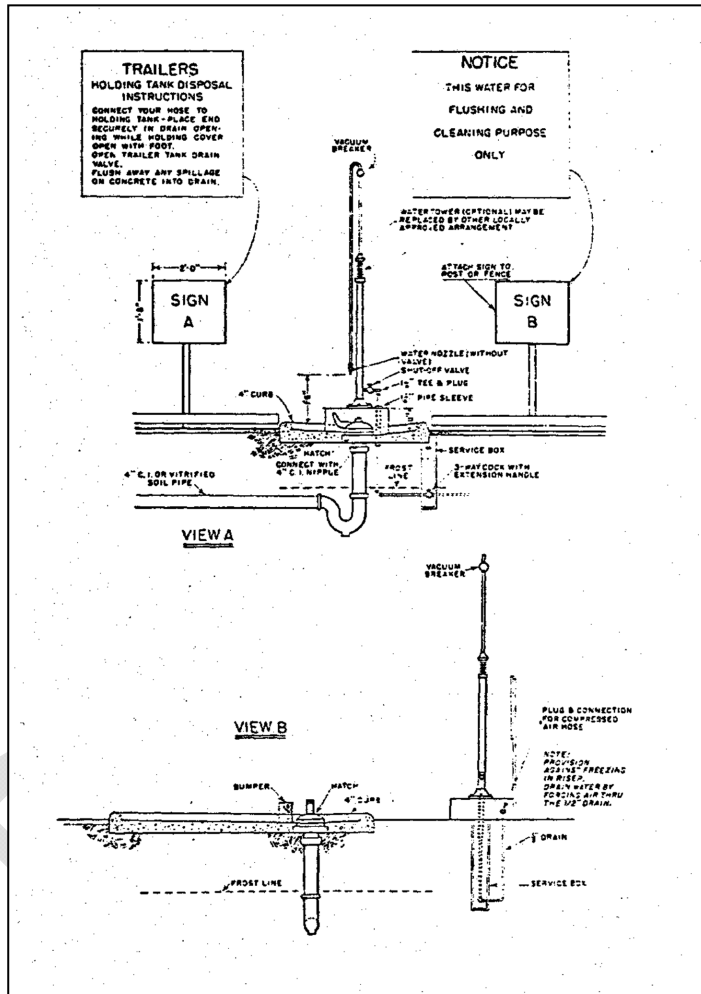
**160.090** The operator is responsible for maintaining the dump station in a clean, odor free condition.

**160.095** The dump station construction shall conform to Figures 12 and 13.

FIGURE 112  
TYPICAL DUMP STATION



**FIGURE 123**  
**DUMP STATION DETAILS**



## SECTION 170

### VARIANCE AND SWS BOARD

- 170.010** The Sewage Wastewater and Sanitation Hearing Board (SWS Board) consists of ~~consists of~~ five (5) members and two (2) alternates ~~7 members~~ appointed by the District Board of Health.
- 170.015** Qualifications of Members: Northern Nevada Public Health will endeavor to ensure that the board has broad representation, including the following:

1. One member ~~of the SWS Board shall be~~ who is an attorney admitted to practice law in this state.
2. One member who is ~~of the SWS Board shall be~~ an engineer registered in this state.
3. One member who is ~~of the SWS Board shall be~~ a person who is not an employee of ~~the Health Authority~~ Northern Nevada Public Health and:
  - a. Has at least two (2) years of experience in sanitary engineering or public health sanitation; or
  - b. Is knowledgeable in the construction and operation of on-site sewage disposal systems.
4. ~~All The~~ members of the SWS Board ~~and alternates~~ shall be residents of the ~~Health District~~ area governed by Northern Nevada Public Health.

In the event that suitable candidates meeting the above credentials cannot be found, the Health District Board of Health may appoint appropriate persons as necessary to fill the Board seats.

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**170.020** Terms of Members, Vacancies:

1. Members of the SWS Board ~~and alternates~~ shall be appointed for a three (3) year term.
2. Upon the expiration of a term of office, a member may continue to serve until a successor is appointed.
3. If a vacancy occurs in the SWS Board, the Health Officer shall notify the District Board of Health and the District Board of Health will appoint a person duly qualified pursuant to Section 170.015 to replace the member for the remainder of the unexpired term.

**170.025** Officers of the SWS Board:

1. The SWS Board shall elect from its members a Chair and such other officers, as it deems necessary. The officers of the SWS Board shall hold their respective offices at the SWS Board's pleasure.
2. Subject to the approval of the District Board of Health, the SWS Board may adopt a manual of procedure to govern its conduct.

**170.030** Meetings of SWS Board, Quorum:

1. Except as provided in subsection 2, the SWS Board shall meet at least once a month.
2. The SWS Board may meet at intervals less or more frequent than those specified in Subsection A when no matters are pending for a regularly scheduled meeting.
3. ~~Three (3)~~ Four (4) SWS Board members ~~or alternates~~ constitute a quorum.
4. The SWS Board shall not take action on any matter before them except by concurring vote of the majority of the quorum.

**170.035** Powers and Duties of SWS Board:



The SWS Board shall hold hearings to consider:

1. Appeals by aggrieved person,
2. Applications for variances, and
3. Petitions to consider other matters relating to sewage, wastewater or sanitation.

The SWS Board may also formulate recommendations for action by the District Board of Health.

**170.040** Appeal or Petition to SWS Board:

1. To appeal any final decision of the Health Authority, a person shall, within ten (10) days of the decision, file a written notice of appeal at the office of the Director of the Division of Environmental Health Services (Director). The notice shall be filed on a form prepared by the [Health Authority](#) and approved by the SWS Board.
2. To petition the SWS Board to consider any matter relating to sewage, wastewater or sanitation, except a request for a variance, a person shall file a written request with the chairman of the SWS Board or a designee.
3. Within thirty (30) days after an appeal is filed pursuant to subsection 1, or a written request is filed pursuant to subsection 2, the SWS Board shall conduct a hearing on the appeal or request.
4. At the hearing:
  - a. The Chair or Vice-Chair of the SWS Board may administer oaths to all persons who wish to testify.
  - b. The SWS Board shall receive all relevant evidence relating to the appeal or petition.
  - c. Members of the SWS Board may question any person testifying before them.
5. At the close of the hearing, the SWS Board shall make its decision and recommendation for final action by the District Board of Health. The transcript of the hearing and recommendation shall be submitted to the District Board of Health within thirty (30) days of the hearing.
6. The District Board of Health, upon receipt of the transcript and recommendation, will make a final decision on the appeal or request at its next regular meeting. In making its decision, the District Board of Health may affirm, modify or reverse the decision of the SWS Board or refer the appeal or request back to the SWS Board for additional consideration.
7. If the appeal or petition is referred back to the SWS Board, the SWS Board shall, within thirty (30) days, rehear the appeal or request and the procedures set forth in subsections 5 and 6 of this section will apply. The District Board of Health may make no more than one (1) referral back to the SWS Board.

**170.045** Application for Variance:

1. Any person who applies for a variance shall pay a non-refundable fee as set by the District Board of Health.
2. To request a variance, a person shall file a completed variance application sheet at the office of the Director. The application shall specify all the sections of these regulations for which the person seeks a variance. The application shall include:
  - a. Soil logs and percolation test results.
  - b. Sewage loading calculations and application rates.
  - c. System sizing calculations.
  - d. Pertinent geological and hydrogeological information.
  - e. Construction drawings cross-sections and specifications.
  - f. A contour map accurately showing test hole locations and the information required under Section 020.035 of these regulations.
  - g. Such other information as the Director may require enabling the SWS Board to adequately consider the application.
  - h. Certification by an engineer that the proposed system is properly designed.
  - i. An application will not be considered complete until all information specified in this section and the Division has received the required fees.
3. Upon receipt of the completed application, the Director will forward it to the Chair of the SWS Board.
4. Within forty (40) days of the date on which an application for a variance is filed, the SWS Board shall conduct a hearing to consider the variance request.
5. Prior to the hearing, the Director shall cause notice of the application to be posted in accordance with the provisions of Chapter 241 of the Nevada Revised Statutes.
6. At the hearing, the SWS Board shall receive all relevant evidence and shall consider whether:
  - a. The proposed system will significantly and/or adversely impact any water so that the water may no longer be used for its existing or expected beneficial use.
  - b. The proposed system will be detrimental or pose a danger to public health or safety or create or contribute to a public health hazard.
  - c. Other reasonable alternatives for compliance with these regulations are available to the applicant.
7. In determining whether to recommend approval of the variance, the SWS Board shall consider the relative interests of the public, other owners of property likely to be affected by the variance and the applicant.

8. At the close of the hearing, the SWS Board shall make its decision and written recommendation for final action by the District Board of Health. The SWS Board may recommend that appropriate conditions are placed upon the variance and failure to comply with those conditions shall result in immediate revocation of the variance.
9. The decision and written recommendations of the SWS Board, together with any written findings, the evidence received at the hearing and the application shall be forwarded to the chairman of the District Board of Health within thirty (30) days after the hearing.
10. The District Board of Health, upon receipt of the recommendation specified in Subsection 8, will make a final decision. The District Board of Health may receive additional evidence and testimony from any person and may affirm, modify or reverse the decision of the SWS Board or refer the application back to the SWS Board for additional consideration. The basis for the decision of the District Board of Health and any conditions imposed will be specified in writing and sent to the applicant.
11. If the variance request is approved, the applicant shall immediately proceed to construct or implement the variance, which is the subject of the application. The variance expires one (1) year from the date on which it was approved unless the on-site sewage disposal system construction has commenced within that period of time, or as otherwise specified in the variance. A variance may be renewed by following the procedures listed in Subsections A through I.
12. If the application is referred back to the SWS Board, the SWS Board will rehear the matter in the manner specified in subsection 4. The District Board of Health may make not more than one referral back to the SWS Board.

## **SECTION 190**

### **UNLAWFUL ACTS: PENALTIES**

- 190.005** Any person who violates any provision of these regulations is guilty of a misdemeanor.
- 190.010** Each day or part of a day during which such violation is continued and/or repeated constitutes a separate violation

## **SECTION 200**

### **CIRCUMVENTION AND INTERPRETATION**

- 200.005** Nothing contained herein shall be interpreted to circumvent these regulations to make them less effective.
- 200.010** If more than one (1) interpretation exists for a regulation, the more restrictive interpretation shall be followed.

## **SECTION 210**

### **SEVERABILITY**

- 210.005** If any provision of these regulations is held invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the other provisions, which can be given effect without the invalid provision, and to this end the provisions of these regulations are declared to be severable.

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