

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

*Nevada County Land Use & Development Code*  
**INDIVIDUAL ON-SITE SEWAGE DISPOSAL REGULATIONS**  
**ADMINISTRATIVE SECTION**

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*Nevada County Land Use & Development Code*  
**INDIVIDUAL ON-SITE SEWAGE DISPOSAL REGULATIONS**  
**TECHNICAL SECTION**

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## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

*Nevada County Land Use & Development Code*  
**LOCAL AREA MANAGEMENT PLAN (LAMP)**  
**AND**  
**ON-SITE WASTEWATER TREATMENT SYSTEM POLICY (OWTS)**

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## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

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LAMP CHECKLIST

### NEVADA COUNTY LAMP CHECKLIST

E. Rapport, Revised 10 Feb 2015  
 Nevada County LAMP, NorthStar Engineering, March 16, 2016  
 PROPOSED LOCAL CODES IN COMPLIANCE WITH OWTS POLICY

GENERAL REQUIREMENTS FOR LAMPs						
OWTS Policy Section	OWTS Policy Section Summary	Region 5 Comments (These do not replace your review of OWTS Policy. Italics and websites are specific explanations, more detailed than in the Policy.)	Relevant LAMP Section	Legal Authority/ Code Section	Deficiency Address Prior to Our Scheduling for Board Approval	Potential Cost in First Water Quality Ass
3.3	Annual Reporting	For Section 3.3 et seq, describe your program for annual reporting to Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff in a tabular spreadsheet format.	Intro R&Rs	Board of Supervisors May Adopt Sewage Disposal Regulations <u>Sec. L-VI 1.1 Purpose</u>  Defining Sewage Disposal Regulations <u>Sec. L-VI 1.2 Definitions Q</u>		
3.3.1	Complaints	Include numbers and locations of complaints, related investigations, and means of resolution.	Intro R&Rs	<u>Sec. L-VI 1.1 Purpose</u>		
3.3.2	OWTS Cleaning	Include applications and registrations issued as part of the local cleaning registration pursuant to California Health and Safety Code §117400 et seq.	Intro R&Rs	<u>Sec. L-VI 1.1 Purpose</u>		
3.3.3	Permits for New and Replacement OWTS	Include numbers and locations of permits for new and replacement OWTS, and their Tiers.	Intro R&Rs	<u>Sec. L-VI 1.1 Purpose</u>		
3.4	Permanent Records	Describe your program for permanently retaining records, and means of making them available to Central Valley Water Board staff within 10 working days of a written request.	Intro R&Rs	<u>Sec. L-VI 1.1 Purpose</u>		
3.5	Notifications to Municipal Water Suppliers	Describe your program for notifying public well and water intake owners, and the California Department of Public Health. Notification shall be as soon as practicable, but no later than 72 hours upon discovery of a failing OWTS, as described in Sections 11.1 and 11.2, within setbacks described in Sections 7.5.6 through 7.5.10.	Intro R&Rs	<u>Sec. L-VI 1.1 Purpose</u>		

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LAMP CHECKLIST						
9.0	Minimum OWTS Standards	This Section is an introduction; we require no specific LAMP Section citation here.		Not applicable		
9.1	Considerations for LAMPs	For Section 9.1 et seq., provide your commitment to evaluate complaints, variances, failures, and inspections in Section 9.3.2 (Water Quality Assessment), and your proposed means of assessment to achieve this Policy's purpose of protecting water quality and human health.	Intro R&Rs	<u>Sec. L-VI 1.1 Purpose</u>		
9.1.1	Degree of vulnerability due to local hydrogeology	<i>Describe your commitment, and proposed means to identify hydrogeologically vulnerable areas for Section 9.3.2, after compiling monitoring data. Discuss appropriate related siting restrictions and design criteria to protect water quality and public health. Qualified professionals ("Definitions," page 9 in the Policy) should identify hydrogeologically vulnerable areas. Such professionals, where appropriate during a Water Quality Assessment, should generally consider locally reasonable percolation rates of least permeable relevant soil horizons, best available evidence of seasonally shallowest groundwater (including, but not limited to, soil mottling and gleying, static water levels of nearby wells and springs, and local drainage patterns), threats to receptors (supply wells and surface water), and potential geotechnical issues (including, but not limited to, potentially adverse dips of bedding, foliations, and fractures in bedrock).</i>	Definitions Administrative Section A-014, A-44  Technical Sections T-052 through T-090	<u>Sec. L-VI 1.1 Purpose</u>  <u>Sec. L-VI 1.21 Violations, Nuisances and Abatement</u>		
9.1.2	High quality waters and other environmental conditions requiring enhanced protection	Describe special restrictions to meet water quality and public health goals pursuant to all Federal, State, and local plans and orders. Especially consider appropriate alternatives to those provided in Section 7.8. Allowable Average Density Requirements under Tier 1. See also: State Water Resources Control Board Resolution No. 68-16.	Administrative Section A-014, A-44  Technical Sections T-052 through T-090	<u>Sec. L-VI 1.1 Purpose</u>		
9.1.3	Shallow soils requiring non-standard dispersal systems	<i>We interpret "shallow" soils generally to mean thin soils overlying bedrock or highest seasonal groundwater. Dependent on threats to receptors, highest seasonal groundwater can locally include perched and intermittent saturated zones, as well as the shallowest local hydraulically unconfined aquifer unit. See Section 8.1.5 for Minimum Depths to Groundwater under Tier 1. Qualified professionals should make appropriate determinations on the design and construction of non-standard dispersal systems due to shallow soils.</i>	Definitions  Administrative Section A-014, A-44  Technical Sections T-052 through T-090	<u>Sec. L-VI 1.1 Purpose</u>		
9.1.4	High domestic well usage areas	<i>Our key potential concerns are nitrate and pathogen transport toward receptor wells, especially in areas with existing OWTS already prone to soft failures (OWTS failures not evident at grade). Appropriate qualified professionals should consider reasonable pollutant flow paths toward domestic wells, at minimum based on, publically available nitrate concentrations in local wells, published technical literature on local wastewater and non-wastewater nitrate sources, well constructions, pumping demands, and vulnerability of wells due to local hydrogeology. For pathogens, qualified</i>	Administrative Section A-014, A-44  Technical Sections T-052 through T-090	<u>Sec. L-VI 1.1 Purpose</u>		

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LAMP CHECKLIST

		professionals should ensure that field methods are sufficient to mitigate the potential for false positives.			
9.1.5	Fractured bedrock	Where warranted, appropriate qualified professionals should assess permeability trends of water-bearing fractures, and related potential pathways of effluent toward receptors, including but not limited to, domestic wells and surface water. The professionals should also consider potential geotechnical issues. We suggest consideration of fractured bedrock in concert with percolation rates of overlying soils; either very high or low percolation rates might warrant siting restrictions or non-standard dispersal systems. See also State Water Resources Control Board Order WQ 2014-0153-DWQ, Attachment 1, page 1-3, Item A-3.	Definitions: Administrative Section A-014, A-44  Technical Sections T-052 through T-090	Sec. L-VI 1.1 Purpose	
9.1.6	Poorly drained soils	Appropriate qualified professionals should give criteria for determination of representative percolation rates, including but not limited to, general site evaluation, trench logging, pre-soak and measurement methods of percolation tests, and acceptable alternatives for percolation tests.	Definitions: Administrative Section A-014, A-44  Technical Sections T-052 through T-090	Sec. L-VI 1.1 Purpose	
9.1.7	Vulnerable surface water	Our key potential concern is eutrophication of fresh surface water. While typically with relatively low mobility in groundwater and recently informally banned in dishwasher detergents, phosphate is a common cause. At minimum, describe appropriate qualified professionals who will consider potential pathways of wastewater-sourced phosphate and other nutrients toward potentially threatened nearby surface bodies.	Definitions: Administrative Section A-014, A-44  Technical Sections T-052 through T-090	Sec. L-VI 1.1 Purpose	
9.1.8	Impaired water bodies	Wolf Creek, Nevada County, and Woods Creek, Tuolumne County will require Tier 3 Advanced Protection Management Programs. This applies to Nevada, Placer, and Tuolumne Counties. See Attachment 2 of the OWTS Policy.	N/A Defaulting to Minimum Standards in Tier 3 of the OWTS Policy	Sec. L-VI 1.1 Purpose	
9.1.9	High OWTS density areas	Where nitrate is an identified chronic issue, at minimum, consider nitrogen loading per area; for example, see Hartzsche and Einemore (1992), Crites and Tchobanoglous (1998), and more recent publications as appropriate.	N/A Nitrogen Not Identified and a chronic issue	Sec. L-VI 1.1 Purpose	
9.1.10	Limits to parcel size	At minimum, consider hydraulic mounding, nitrate and pathogen loading, and sufficiency of potential replacement areas.	A-014	Sec. L-VI 1.1 Purpose	
9.1.11	areas with OWTS that predate	This refers to areas with known, multiple existing OWTS.	Definitions: Administrative Section A-014, A-44	Sec. L-VI 1.1 Purpose	

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LAMP CHECKLIST

	adopted standards		Technical Sections T-052 through T-090		
9.1.12	areas with OWTS either within prescriptive, Tier 1 setbacks, or within setbacks that a Local Agency finds appropriate	This refers to areas with known, multiple existing OWTS.	Definitions Administrative Section A-014, A-44 Technical Sections T-052 through T-090	Sec. L-VI 1.1 Purpose	
9.2	Scope of Coverage:	For Section 9.2 et seq, provide details on scope of coverage, for example maximum authorized projected flows, allowable system types, and their related requirements for site evaluation, siting, and design and construction requirements.	Flow A-008, Flow T-052 Technical Sections T-052 through T-090	Sec. L-VI 1.1 Purpose	
9.2.1	Installation and Inspection Permits	Permits generally cover procedures for inspections, maintenance and repair of OWTS, including assurances that such work on failing systems is under permit, see Tier 4.	A-012 A-018, A-024	Sec. L-VI 1.11 Sewage Disposal System Construction Permit Application	
			There are no TMDL and no Special provisions in the LAMP for Wolf Creek impacted by Pathogens.		
9.2.2	Special Provision Areas and Requirements near Impaired Water Bodies	Wolf Creek, Nevada County, and Woods Creek, Tuolumne County will require Tier 3 Advanced Protection Management Programs. This applies to Nevada, Placer, and Tuolumne Counties. See Attachment 2 of the OWTS Policy.	Therefore Nevada County will fall under the Tier 3 minimum requirements. A-044 A-30 1(E)	Sec. L-VI 1.1 Purpose	
9.2.3	LAMP Variance Procedures	Variances for new installations and repairs should be in substantial conformance to the Policy, to the greatest extent practicable. Variances cannot authorize prohibited items in Section 9.4.	A-030	Sec. L-VI 1.16 Variances	

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LAMP CHECKLIST					
9 2 4	Qualifications for Persons who Work on OWTS	Qualifications generally cover requirements for education, training, and licensing. We suggest that Local Agencies review information available from the California Onsite Water Association (COWA), see: <a href="http://www.cowa.org/">http://www.cowa.org/</a>	Definition Consultant A-010 T-080	Sec. L-VI 1.14 System Monitoring and Maintenance Sec. L-VI 1.8 Site Evaluation Required	
9 2 5	Education and Outreach for OWTS Owners	Education and Outreach generally supports owners on locating, operating, and maintaining OWTS. At minimum, ensure that you will require OWTS designers and installers to provide owners with sufficient information to address critical maintenance, repairs, and parts replacements within 48 hours of failure, see also Tier 4. Also, provide information to appropriate volunteer groups. At minimum, we suggesting providing this information on your webpage.	T-054	Sec. L-VI 1.1 Purpose	
9 2 6	Septage Disposal	Assess existing and proposed disposal locations, and their adequacy.	Additional LAMP Components	Sec. L-VI 1.1 Purpose	
9 2 7	Maintenance Districts and Zones	These generally refer to Homeowners Associations, special maintenance districts, and similar responsible entities. Requirements for responsible entities should generally reflect the Local Agency's judgment on minimum sizes of subdivisions that could potentially cause environmental impacts. LAMPs should ensure that responsible entities have the financial resources, stability, legal authority, and professional qualifications to operate community OWTS.	A-038 Intro	Sec. L-VI 1.20 Centralized Sewage Disposal Criteria ARTICLE 3	
9 2 8	Regional Salt and Nutrient Management Plans	Consider development and implementation of, or coordination with, Regional Salt and Nutrient Management Plans; see also State Board Resolution 2009-0011. <a href="http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/na_ws_reqs_policies/lw_policy_implementation_mem.pdf">http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/na_ws_reqs_policies/lw_policy_implementation_mem.pdf</a>	Intro	Sec. L-VI 1.1 Purpose	
9 2 9	Watershed Management Groups	Coordinate with volunteer well monitoring programs and similar watershed management groups.	Intro	Sec. L-VI 1.1 Purpose	
9 2 10	Proximity of Collection Systems to New or Replacement OWTS	Evaluate proximity of sewer systems to new and replacement OWTS. See also Section 9.4.9.	A-018	Sec. L-VI 1.1 Purpose	
9 2 11	Public Water System Notification prior to permitting OWTS	Give your notification procedures to inform public water services of pending OWTS installations and repairs within prescribed setback distances.	Intro R&Rs	Sec. L-VI 1.1 Purpose	

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	Installation or Repairs					
9.2.12	Policies for Dispersal Areas within Setbacks of Public Wells and Surface Water Intakes	Discuss supplemental treatments; see Sections 10.9 and 10.10. A Local Agency can propose alternate criteria; however we will need rationale in detail.	T-112 T-112	Sec. L-VI 1.4 Sewage Disposal A Sec. L-VI 1.1 Purpose		
9.2.13	Cesspool Discontinuance and Phase-Out	Provide plans and schedule.	Definitions A-008	Sec. L-VI 1.1 Purpose		
9.3	Minimum Local Agency Management Responsibilities:	For Section 9.3 et seq, discuss minimum responsibilities for LAMP management. Responsibilities should generally cover data compilation, water quality assessment, follow-up on issues, and reporting to the Central Valley Water Board.	R&R	Sec. L-VI 1.1 Purpose		
9.3.1	Permit Records, OWTS with Variances	Describe your records maintenance, numbers, locations, and descriptions of permits where you have granted variances.	Introduction	Sec. L-VI 1.1 Purpose		
9.3.2	Water Quality Assessment Program:	In the Water Quality Assessment Program, generally focus on areas with characteristics covered in Section 9.1. Include monitoring and analysis of water quality data, complaints, variances, failures, and inspections. Also include appropriate monitoring for nitrate and pathogens; you can use information from other programs. We are available to provide further guidance on reporting requirements. In the interim, to assist with analyses and evaluation reports (Section 9.3.3), we suggest posting data on appropriate maps; for example consider the following links:	Introduction Introduction	Sec. L-VI 1.1 Purpose		
		<a href="http://www.nrcs.usda.gov/wps/portal/nrcs/site/ca/home/">http://www.nrcs.usda.gov/wps/portal/nrcs/site/ca/home/</a> <a href="http://www.cdpr.ca.gov/docs/emon/grndwtr/qwpa_maps.htm">http://www.cdpr.ca.gov/docs/emon/grndwtr/qwpa_maps.htm</a> <a href="http://nqmdb.usgs.gov/maps/mapview/">http://nqmdb.usgs.gov/maps/mapview/</a> <a href="http://www.conservation.ca.gov/cqs/information/publications/ms/Documents/MS58.pdf">http://www.conservation.ca.gov/cqs/information/publications/ms/Documents/MS58.pdf</a> <a href="http://www.water.ca.gov/groundwater/data_and_monitoring/northern_region/GroundwaterLevel/SacValGWContours/1001400_Wells_Spring-2013.pdf">http://www.water.ca.gov/groundwater/data_and_monitoring/northern_region/GroundwaterLevel/SacValGWContours/1001400_Wells_Spring-2013.pdf</a> <a href="http://www.water.ca.gov/waterdata/library/">http://www.water.ca.gov/waterdata/library/</a> <a href="http://www.waterboards.ca.gov/qama/docs/mya_map_table.pdf">http://www.waterboards.ca.gov/qama/docs/mya_map_table.pdf</a>				



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LAMP CHECKLIST

		<a href="http://geotracker.waterboards.ca.gov/qama/">http://geotracker.waterboards.ca.gov/qama/</a> <a href="http://msc.fema.gov/portal">http://msc.fema.gov/portal</a>				
9.3.2.1	Domestic Well Sampling	Apply your best professional judgment to ensure that well sampling focuses on hydrogeologically reasonable pollutant (primarily nitrate) flow paths. A qualified professional should generally design an appropriate directed, judgmental, sample (i.e., statistically non-random). Of the links provided, the Geotracker GAMA website might be particularly useful to the professional, at minimum we suggest reviews of available nitrate data in relevant domestic wells, up-gradient, within, and down-gradient of an area of interest. For some instances, for example where a developer proposes a relatively large project, a Local Agency might require a special study to distinguish between wastewater and non-wastewater sourced nitrate. In such cases, we suggest your consideration of requiring focused sampling and analyses, for example of $\delta^{15}\text{O}$ and $\delta^{15}\text{N}$ of nitrate (Megan Young, USGS, 2014 <a href="#">per 9000</a> ), and the artificial sweeteners sucralose and acesulfame-K (Buzge et al 2009, Van Steynvood et al 2011, and more recent publications as they become available).	Introduction	Sec. L-VI 1.1 Purpose		
9.3.2.2	Domestic Well Sampling, Routine Real Estate Transfer Related	This applies only if those samples are routinely performed and reported.	N/A			
9.3.2.3	Water Quality of Public Water Systems	Reviews can be by you or another municipality.	N/A			
9.3.2.4	Domestic Well Sampling, New Well Development	This applies if those data are reported.	N/A			
9.3.2.5	Beach Water Quality Sampling, H&S Code §115685	Public beaches include those on freshwater.	N/A			
9.3.2.6	Receiving Water Sampling Related to NPDES Permits	This refers to existing data from other monitoring programs	N/A			
9.3.2.7	Data contained in California Water Quality Assessment Database	This refers to existing data from other monitoring programs	N/A			
9.3.2.8	Groundwater Sampling Related to Waste	This refers to existing data from other monitoring programs.	Introduction	Sec. L-VI 1.1 Purpose		

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**Edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

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LAMP CHECKLIST						
	Discharge Requirements					
9.3.2.9	Groundwater Sampling Related to GAMA Program	This refers to existing data from other monitoring programs	N/A			
9.3.3	Annual Status Reports Covering 9.3.1-9.3.2	Reports are due 1 February, annually beginning one year after Regional Board approves LAMP. Every fifth year also include an evaluation report. Submit all groundwater monitoring data in Electronic Delivery Format (EDF) for Geotracker, submit all surface water data to CEDEN.	Introduction	Sec. L-VI 1.1 Purpose		
9.4	Not Allowed or Authorized in LAMP:	For Section 9.4 et seq, ensure that your LAMP covers prohibitions.				
9.4.1	Cesspools	Local Agencies cannot authorize cesspools of any kind or size.	Definitions A-008	Sec. L-VI 1.1 Purpose		
9.4.2	Projected Flow > 10,000 gpd	Apply professional judgment to further limit projected flows.	Flow A-008, Flow T-052 Technical Sections T-052 through T-090	Sec. L-VI 1.1 Purpose		
9.4.3	Effluent Discharger Above Post-Installation Ground Surface	For example, Local Agencies cannot authorize effluent disposal using sprinklers, exposed drip lines, free-surface wetlands, and ponds.	Introduction	Sec. L-VI 1.4 Sewage Disposal B		
9.4.4	Installation on Slopes > 30% without Registered Professional's Report	See also earlier comments, Section 9.1.1, regarding potential geotechnical concerns.	T-066 T-066	Sec. L-VI 1.1 Purpose		
9.4.5	Decreased Leaching Area for IAPMO-Certified Dispersal System with Multiplier < 0.70	IAPMO, International Association of Plumbing and Mechanical Officials. Decreased leaching area refers to alternatives to conventional (stone-and-pipe) dispersal systems; these alternatives require relatively less area. The multiplier, <1, allows for a reduction in dispersal field area relative to a conventional system.	N/A	Sec. L-VI 1.1 Purpose		
9.4.6	Supplemental Treatments without Monitoring and Inspection	Therefore, ensure that the LAMP describes periodic inspection and monitoring for OWTS with supplemental treatments.	T-052	Sec. L-VI 1.14 System Monitoring and Maintenance		

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LAMP CHECKLIST

9.4.7	Significant Wastes from RV Holding Tanks	We interpret significant amounts to mean amounts greater than incidental dumping, such that volume, frequency, overall strength, or chemical additives preclude definition as domestic wastewater; see Definitions in OWTS Policy. See also, State Water Resources Control Board Order WQ 2014-0153-DWQ, Attachment B-2	A-008	Sec. L-VI 1.1 Purpose		
9.4.8	Encroachment Above Groundwater	Bottom of OWTS dispersal systems cannot be less than 2 feet above groundwater, or bottom of seepage pits, less than 10 feet above groundwater. We interpret groundwater to include inter-flow and perched zones, along with the shallowest main unconfined aquifer. Degree of vulnerability to pollution due to hydrogeological conditions, Section 9.1.1, and the Water Quality Assessment, Section 9.3.2., should cover in detail means of assessing seasonally shallowest depth to groundwater.	T-052 T-056 T-058 T-060 T-062 T-064 T-066 T-068	Sec. L-VI 1.4 Sewage Disposal, B		
9.4.9	Installations Near Existing Sewers	New and replacement OWTS cannot occur on any lot with available public sewers less than 200 feet from a building or exterior drainage facility (exception; connection fees plus construction costs are greater than 2 times the replacement OWTS costs, and Local Agency determines no impairment to any drinking water.)	A-018	Sec. L-VI 1.7 Connection To Public Sewer System		
9.4.10	Minimum Setbacks:	These setbacks are from public water systems.	A-044	Sec. L-VI 1.1 Purpose		
9.4.10.1	From Public Supply Wells	If the dispersal system is less than 10' in depth, then the setback must be greater than 150' from public water supply well.	A-044	Sec. L-VI 1.1 Purpose		
9.4.10.2		If the dispersal system is greater than 10' in depth, then the setback must be greater than 200' from public water supply well.	A-044	Sec. L-VI 1.1 Purpose		
9.4.10.3	From Public Supply Wells, Regarding Pathogens	If the dispersal system is greater than 20' in depth, and less than 600' from public water supply well, then the setback must be greater than the distance for two-year travel time of microbiological contaminants, as determined by qualified professional. In no case shall the setback be less than 200'.	A-044	Sec. L-VI 1.1 Purpose		
9.4.10.4	From Public Surface Water Supplies	If the dispersal system is less than 1,200' from public water system's surface water intake, within its drainage catchment, and potentially threatens an intake, then the setback must be greater than 400' from the high water mark of the surface water body.	A-044	Sec. L-VI 1.1 Purpose		
9.4.10.5	From Public Surface Water Supplies	If the dispersal system is greater than 1,200, but less than 2,500, from public water system's surface water intake, within its drainage catchment, and potentially threatens an intake, then the setback must be greater than 200' from high water mark of surface water body.	A-044	Sec. L-VI 1.1 Purpose		
9.4.11	Supplemental Treatments, Replacement OWTS That Do Not Meet Minimum Setback Requirements	Replacement OWTS shall meet minimum horizontal setbacks to the maximum extent practicable.	A-030	Sec. L-VI 1.1 Purpose		

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LAMP CHECKLIST					
9.4.12	Supplemental Treatments, New OWTS That Do Not Meet Minimum Setback Requirements	New OWTS shall meet minimum horizontal setbacks to the maximum extent practicable, and meet requirements for pathogens as specified in Section 10.8. <i>add</i> any other Local Agency's mitigation measures.	A-030	<u>Sec. L-VI 1.16 Variances</u>	
9.5	Technical Support of LAMP	Include adequate detail to ensure that the combination of all proposed criteria will protect water quality and public health sufficiently to warrant the Central Valley Water Board's waiver of Waste Discharge Requirements, pursuant to §13269, California Water Code.	T-052 through T-112	<u>Sec. L-VI 1.1 Purpose</u>	
9.6	Regional Water Quality Control Board Consideration of LAMP	Regional Boards shall consider past performance of local programs to protect water quality. <i>We will generally consider past performance based on our reviews of annual status and evaluation reports, see Section 9.3.3.</i>	N/A	N/A	

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(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

### A-002: INTRODUCTION

These regulations establish requirements for sub-surface sewage disposal. The Nevada County Department of Environmental Health (hereafter, "Department") is the agency responsible for the application of this Chapter. The California Regional Water Quality Control Boards (the Central Valley Region for the west slope of the Sierra Nevada and the Lahontan Region for the east slope of the Sierra Nevada) are the state agencies responsible for the protection of ground and surface water quality.

While the Department administers these regulations, the Regional Boards retain the authority to issue permits for any discharge of waste that may affect water quality, including discharges from individual systems. The Regional Boards adopt "Basin Plans" to define beneficial uses of water, adopt water quality objectives, and to provide guidelines to protect water quality.

The Basin Plan for the Lahontan Region contains criteria for individual waste disposal systems. Some of these criteria are more stringent than those provided in these regulations. However, provisions of a Memorandum of Understanding (MOU) between the Lahontan Regional Board and the County will allow the Department to grant exceptions to the onsite criteria established by the Lahontan Regional Board. The Lahontan Basin Plan also establishes a maximum density criteria and contains a prohibition area for individual on-site sewage disposal systems in the Truckee River watershed. The Department will not issue permits for new individual on-site sewage disposal systems in conflict with the Lahontan Basin Plan's density criteria or discharge prohibition areas, except as otherwise provided in the MOU.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### INTRODUCTION

These regulations establish requirements for sub-surface sewage disposal. These regulations do not permit effluent dispersal above the post installation ground surface. This includes, sprinklers, exposed drip lines, free-surface wetlands, ponds and the like. The Nevada County Department of Environmental Health (hereafter, "Department") is the agency responsible for the application of this Chapter. The California Regional Water Quality Control Boards (the Central Valley Region for the west slope of the Sierra Nevada and the Lahontan Region for the east slope of the Sierra Nevada) are the state agencies responsible for the protection of ground and surface water quality.

While the Department administers these regulations, the Regional Boards retain the authority to issue permits for any discharge of waste that may affect water quality, including discharges from individual systems. The Regional Boards adopt "Basin Plans" to define beneficial uses of water, adopt water quality objectives, and to provide guidelines to protect water quality.

The Basin Plan for the Lahontan Region contains criteria for individual waste disposal systems. Some of these criteria are more stringent than those provided in these regulations. However, provisions of a Memorandum of Understanding (MOU) between the Lahontan Regional Board and the County will allow the Department to grant exceptions to the onsite criteria established by the Lahontan Regional Board.

The Lahontan Basin Plan also establishes a maximum density criteria and contains a prohibition area for individual on-site sewage disposal systems in the Truckee River watershed. The Department will not issue permits for new individual on-site sewage disposal systems in conflict with the Lahontan Basin Plan's density criteria or discharge prohibition areas, except as otherwise provided in the MOU.

### RESPONSIBILITIES AND DUTIES

The Administrative Section describes the Local Agency Requirements and Responsibilities. The following identifies how the Department will implement each section of the Policy.

The Department will implement this Local Area Management Program (LAMP) in accordance with Tier 2 of the Policy once the LAMP is approved by the CVRWQCB.

The Department will adhere to the LAMP including all requirements for monitoring and reporting. Any modifications to the LAMP must first be submitted to the CVRWQCB with a written notice of the intended modifications. The modifications cannot be implemented until CVRWQCB approval has been given.

At the time of submittal of this LAMP there is one Clean Water Act section 303(d) impaired water body in Nevada County identified by the State Water Resources Control Board (Wolf Creek.) If additional 303(d) impaired water bodies are identified in the future, this LAMP will be revised to conform to requirements of "Tier 3 – Advanced Protection Management Programs for Impaired Areas", as appropriate.

### Annual Report

The annual report will be submitted to the CVRWQCB by February 1 of each year in a format prescribed by the Policy (3.3) and includes the following information:

1. Number and location of complaints.
2. Application and registrations of septic tank cleaners.
3. Number, location, description and risk tier of all OWTS permits.
4. Water Quality Monitoring identified in the Policy (9.3). Groundwater monitoring data will be submitted in a format for inclusion into Geotracker, and surface water monitoring shall be submitted to California Environmental Data Exchange Network (CEDEN).

**Permanent Records-** The Department will retain all permanent records and will make them available within ten (10) working days upon written request by the CVRWQCB. The Department will maintain the number, location and permit description of any variance granted.

**Fifth Year Report –** Every fifth year the Department will submit an evaluation of the monitoring program identified below in "Water Quality Data" and an assessment of whether water quality is being impacted by OWTS, identify any changes in the LAMP that will be under taken to address impacts from OWTS.

**Notifications-** Within 72 hours the Department will notify a public water system and the SWRCB, Division of Drinking Water that has a well located within 150 feet or surface water intake located within 1,200 feet of a failing OWTS. The Department will notify a

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public water system prior to the issuance of an installation permit or repair permit for a OWTS if the surface water intake is within 1,200 feet of the OWTS, is within the drainage catchment of the intake point and is located such that it may impact water quality at the intake point; or within the horizontal setback from a public well.

The Department will maintain a contact list for each water system to make these notifications.

**Water Quality Data** - The Department will maintain a water quality assessment program that consists of obtaining water quality data from the following sources:

- Regulated small water systems in Nevada County, (SWS)
- Wells within Nevada County that are monitored as part of the Statewide Groundwater Ambient Monitoring and Assessment (GAMA) program,
- Nevada City WWTP
- Grass Valley WWTP
- Nevada County Department of Sanitation District 1 Small Cluster Systems

Regulated SWS are monitored at a frequency established by the California Department of Public Health (CDPH). Monitoring wells are sampled once per calendar quarter but not less than once every three years. Each well is sampled for nitrates and pathogens at a minimum. All information in the system is available for public review.

Water quality data associated with OWTS will be included in an annual report submitted to the CVRWQCB.

**Corrective Actions** – The Department has an established OWTS Enforcement Policy. This Policy can be found in Section A-040, and addresses all of the requirements of Tier 4 – OWTS Requiring Corrective Actions.

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<p><b>A-004: ORGANIZATION OF THESE REGULATIONS</b></p> <p>The sewage disposal regulations are divided into two major parts. The first part is the Administrative, consisting of Sections <u>A-002</u> through <u>A-044</u>, which explains general requirements for using the regulations and obtaining a permit. The second part is the Technical, consisting of Sections T-052 through T-116 that give the specific requirements for designing, installing and using a sewage disposal system. The Definitions of Terms used in the Administrative section of the regulations are located in Section T-114, and are important in understanding these regulations.</p>	<p><b>ORGANIZATION OF THESE REGULATIONS</b></p> <p>The sewage disposal regulations are divided into two major parts. The first part is the Administrative, consisting of Sections <u>A-002</u> through <u>A-044</u>, which explains general requirements for using the regulations and obtaining a permit. The second part is the Technical, consisting of Sections T-052 through T-116 that give the specific requirements for designing, installing and using a sewage disposal system. The Definitions of Terms used in the Administrative section of the regulations are located in Section T-114, and are important in understanding these regulations.</p>
<p><b>A-006: STATEMENT OF PURPOSE</b></p> <p>Regulations Goals and Mission:</p> <ul style="list-style-type: none"> <li>To restore and maintain the quality of public waters (see Definitions of Terms), and to protect the public health and general welfare of the people of Nevada County.</li> <li>To provide technical guidance and standards for on-site wastewater treatment and disposal systems.</li> <li>To facilitate the process of obtaining a sewage disposal permit, installing the sewage system successfully and maintaining it for its long term use.</li> </ul>	<p><b>A-006: STATEMENT OF PURPOSE</b></p> <p>Regulations Goals and Mission:</p> <ul style="list-style-type: none"> <li>To restore and maintain the quality of public waters (see Definitions of Terms), and to protect the public health and general welfare of the people of Nevada County.</li> <li>To provide technical guidance and standards for on-site wastewater treatment and disposal systems.</li> <li>To facilitate the process of obtaining a sewage disposal permit, installing the sewage system successfully and maintaining it for its long term use.</li> </ul>

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<b>A-008: GENERAL STANDARDS AND REQUIREMENTS</b>	
(1)	<p><b>Approved System.</b> An approved disposal system (sewage disposal or public sewer system) is needed for all structures that generate sewage. The following types of sewage disposal systems are approved under these regulations (see Definitions of Terms):</p> <p>(A) Standard system.</p> <p>(B) Special Design systems.</p> <p>(C) Other types of systems permitted in the Technical section, including vault privies, holding tanks, waterless toilets, portable toilet, <del>kitchen waste disposal</del> and graywater systems.</p> <p>(D) Pit privies may only be approved on a case-by-case basis in accordance with the variance process described in Section A-030, for primitive-type campgrounds where the Department has determined that a septic tank and leachfield are not practicable and vault privies would be inaccessible for service. Additional requirements are located in the Technical section.</p> <p><del>(E) Pit privies may only be approved on a case-by-case basis in accordance with the variance process described in Section A-030, for primitive-type campgrounds where the Department has determined that a septic tank and leachfield are not practicable and vault privies would be inaccessible for service. Additional requirements are located in the Technical section.</del></p> <p>Descriptions of these types of systems can be found in the Technical section of these regulations.</p>
(2)	<p><b>Sewage Discharge.</b> A person may not discharge sewage onto the ground or into the groundwater or surface water. A system must treat and dispose of sewage in a manner approved by these regulations.</p>
(3)	<p><b>System Connection.</b> A person may connect any structure, or increase the flow to a system, only if that system is designed and approved to accommodate the flow. A septic system permit may be required as per Section A-024.</p>
(4)	<p><b>System Requirements.</b> In order for a system permit to be approved and issued, the property must have a "site approval report" (see Section A-014) and be free of encumbrances (such as easements, deed restrictions, etc.) which would conflict with installing or operating the system. The design, construction, and operation of a new system must meet the requirements of the Technical section of these regulations.</p>
(5)	<p><b>Public Sewer.</b> When a public sewer system is available (as described in Section A-018 (1) (E)), connection to the public sewer system is required, and a system permit will not be issued. In areas where public sewer systems may become available, planning for future connection to the sewer system is encouraged.</p>
(6)	<p><b>Easements.</b> When any portion of a system will be put on a separate property, an easement or covenant protecting against conflicting uses must be recorded on that property. The Department will provide the form for this requirement.</p>
(7)	<p><b>Replacement Area.</b> A minimum 100% replacement area (see Definitions of Terms), must be provided for any proposed system except for system repairs. <del>The replacement area must meet the same site criteria as a system.</del></p>
(8)	<p><b>Area Restrictions.</b> The system must be sited in a location that does not conflict with any other applicable county requirements, including, without limitation, those contained in the county General Plan or the county zoning regulations applicable to the property, and erosion control requirements of the Grading ordinance and related regulations. The soils testing and system site must also comply with any applicable restrictions and notes of the recorded map, for example, those designating no-disturbance zones or environmentally-sensitive resources (such as wetlands, landmark groves of hardwood trees or steep slopes) to be avoided.</p> <p>Unless specifically permitted, a system must remain free from vehicle traffic, driveways, pavement, corrals, arenas, stables, structures, grading, or similar uses or changes. Uses that may damage the system area must be avoided.</p>
(9)	<p><b>Abandoned Wells.</b> Any abandoned well on the property must either be properly destroyed, or maintained for future use, in accordance with the Nevada County Land Use and Development Code, Chapter X (well ordinance), before a sewage disposal system permit can be issued and/or receive final approval, and the system is put into use.</p>
(10)	<p><b>Operation &amp; Maintenance.</b> A system must be operated and maintained so that it does not create a public health hazard, public nuisance (as defined in the California Penal Code) or pollute water. Any special operation and</p>

<b>A-008: GENERAL STANDARDS AND REQUIREMENTS</b>	
(1)	<p><b>Approved System.</b> An approved disposal system (sewage disposal or public sewer system) is needed for all structures that generate sewage. The following types of sewage disposal systems are approved under these regulations (see Definitions of Terms):</p> <p>(A) Standard system.</p> <p>(B) Special Design systems.</p> <p>(C) Other types of systems permitted in the Technical section, including vault privies, holding tanks, waterless toilets, portable toilet, and graywater systems.</p> <p>(D) Pit privies may only be approved on a case-by-case basis in accordance with the variance process described in Section A-030, for primitive-type campgrounds where the Department has determined that a septic tank and leachfield are not practicable and vault privies would be inaccessible for service. Additional requirements are located in the Technical section.</p> <p>Descriptions of these types of systems can be found in the Technical section of these regulations.</p>
(2)	<p><b>Sewage Discharge.</b> A person may not discharge sewage onto the ground or into the groundwater or surface water. A system must treat and dispose of sewage in a manner approved by these regulations.</p>
(3)	<p><b>System Connection.</b> A person may connect any structure, or increase the flow to a system, only if that system is designed and approved to accommodate the flow. A septic system permit may be required as per Section A-024.</p>
(4)	<p><b>System Requirements.</b> In order for a system permit to be approved and issued, the property must have a "department findings report" (see Section A-014) and be free of encumbrances (such as easements, deed restrictions, etc.) which would conflict with installing or operating the system. The design, construction, and operation of a new system must meet the requirements of the Technical section of these regulations.</p>
(5)	<p><b>Public Sewer.</b> When a public sewer system is available (as described in Section A-018 (1) (E)), connection to the public sewer system is required, and a system permit will not be issued. In areas where public sewer systems may become available, planning for future connection to the sewer system is encouraged.</p>
(6)	<p><b>Easements.</b> When any portion of a system will be put on a separate property, an easement or covenant protecting against conflicting uses must be recorded on that property. The Department will provide the form for this requirement.</p>
(7)	<p><b>Replacement Area.</b> A minimum 100% replacement area (see Definitions of Terms), must be provided for any proposed system except for system repairs.</p>
(8)	<p><b>Area Restrictions.</b> The system must be sited in a location that does not conflict with any other applicable county requirements, including, without limitation, those contained in the county General Plan or the county zoning regulations applicable to the property, and erosion control requirements of the Grading ordinance and related regulations. The soils testing and system site must also comply with any applicable restrictions and notes of the recorded map, for example, those designating no-disturbance zones or environmentally-sensitive resources (such as wetlands, landmark groves of hardwood trees or steep slopes) to be avoided.</p> <p>Unless specifically permitted, a system must remain free from vehicle traffic, driveways, pavement, corrals, arenas, stables, structures, grading, or similar uses or changes. Uses that may damage the system area must be avoided.</p>
(9)	<p><b>Abandoned Wells.</b> Any abandoned well on the property must either be properly destroyed, or maintained for future use, in accordance with the Nevada County Land Use and Development Code, Chapter X (well ordinance), before a sewage disposal system permit can be issued and/or receive final approval, and the system is put into use.</p>
(10)	<p><b>Operation &amp; Maintenance.</b> A system must be operated and maintained so that it does not create a public health hazard, public nuisance (as defined in the California Penal Code) or pollute water. Any special operation and maintenance requirements of a system permit must be followed. See also Section A-026.</p>
(11)	<p><b>Septage Haulers.</b> Septage haulers must submit a quarterly report to the County containing a summary of the volume of septage, (in gallons), the facility where septage was pumped and facility location of where septage is disposed.</p>
(12)	<p><b>System Location.</b> Systems should be located where they will be easily accessible for maintenance and repair. Surface</p>



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(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

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maintenance requirements of a system permit must be followed. See also Section A-026.

- (11) **System Location.** Systems should be located where they will be easily accessible for maintenance and repair. Surface runoff, roof, or other types of drainage must not run onto or into your system.
- (12) **System Failure.** A failing system (see Definitions of Terms) must be immediately repaired, or its use discontinued. The Department may require temporary measures to eliminate a public health hazard.
- (13) **Discrepancies.** If any part of these regulations conflict with other laws or regulations, or is found to be invalid, the other parts of the regulations still remain effective.
- (14) **Other Standards.** If a standard is not specified for a system in this Chapter, the most recently Board of Supervisors-adopted **Uniform** Plumbing Code standard will be used.

## NEW Regulation

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runoff, roof, or other types of drainage must not run onto or into your system.

- (13) **System Failure.** A failing system (see Definitions of Terms) must be immediately repaired, or its use discontinued. The Department may require temporary measures to eliminate a public health hazard.
- (14) **Discrepancies.** If any part of these regulations conflict with other laws or regulations, or is found to be invalid, the other parts of the regulations still remain effective.
- (15) **Other Standards.** If a standard is not specified for a system in this Chapter, the most recently Board of Supervisors-adopted **California** Plumbing Code standard will be used.
- (16) **Cesspools of any kind or size are prohibited.**
- (17) **Maximum projected daily flow over 10,000 gallons per day.** Systems with a maximum projected flow of greater than 10,000 gallons per day will need to obtain authorization from the Regional Water Quality Control Board prior to Environmental Health permit issuance.
- (18) **Effluent Disposal that discharges on or above the post installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond is Prohibited.**
- (19) **Use of Slopes Greater than 30% without a stability report is Prohibited.** See Section T-064 for further information.
- (20) **OWTS dedicated to receiving significant amounts of waste dumped from RV holding tanks shall be prohibited.**

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### A-010: DEPARTMENT STAFF QUALIFICATION REQUIREMENTS

A careful evaluation and analysis of the site conditions is essential to the successful siting and long-term operation of a system. This includes the recognition of on-site soils types, potential for groundwater problems, and consideration of the local geology. This goal is accomplished through the cooperative interaction of your private consultant and Department staff.

The State Regional Water Quality Control Boards delegate authority to the County to regulate and permit individual and small community systems. These Boards establish minimum criteria that counties must follow, to protect public health and waters, as well as fulfill requirements of the Porter-Cologne Water Quality Act. In order for the County to implement these regulations and fulfill the mandates of the State Regional Water Quality Control Boards, the following program of on-going staff education and training is required:

Any Department personnel participating in the **site evaluation** process of Section A-014 must be educated and trained in the subject of on-site sewage disposal systems, and possess current registration as an **environmental health specialist** in the State of California.

(1) Minimum education requirements include:

(A) A bachelor's degree or higher, fulfilling the requirements of the Business and Profession Code for registration as an Environmental Health Specialist in California.

~~(B) Completion of course work in an earth science class, offered through an accredited institution; or similar course instruction provided through a comprehensive environmental health agency which regulates on-site sewage disposal.~~

~~(C) On-going annual education/training in sewage disposal for a total of six (6) Continuing Education Units provided by an accredited institution, a recognized professional organization (e.g. California Environmental Health Association, American Society of Agricultural Engineers, California On-Site Wastewater Association), or a comprehensive environmental health agency.~~

(2) Minimum experience requirements include:

(A) One (1) year working as a consultant conducting **site evaluations** for on-site sewage disposal systems.

(B) Six months working under the direct supervision of qualified staff in the Department's Land Use Division, conducting **site evaluations** for on-site sewage disposal systems.

### A-010: DEPARTMENT STAFF QUALIFICATION REQUIREMENTS

A careful evaluation and analysis of the site conditions is essential to the successful siting and long-term operation of a system. This includes the recognition of on-site soils types, potential for groundwater problems, and consideration of the local geology. This goal is accomplished through the cooperative interaction of your private consultant and Department staff.

The State Regional Water Quality Control Boards delegate authority to the County to regulate and permit individual and small community systems. These Boards establish minimum criteria that counties must follow, to protect public health and waters, as well as fulfill requirements of the Porter-Cologne Water Quality Act. In order for the County to implement these regulations and fulfill the mandates of the State Regional Water Quality Control Boards, the following program of on-going staff education and training is required:

Any Department personnel participating in the OSSE process of Section A-014 must be educated and trained in the subject of on-site sewage disposal systems, and possess current registration as an Environmental Health Specialist in the State of California.

(1) Minimum education requirements include:

(A) A bachelor's degree or higher, fulfilling the requirements of the Business and Profession Code for registration as an Environmental Health Specialist in California.

(2) Minimum experience requirements include:

(A) Six months working under the direct supervision of qualified staff in the Department's Land Use Division, conducting OSSEs for on-site sewage disposal systems.

or

(B) One (1) year working as a consultant conducting **OSSEs** for on-site sewage disposal systems.

### A-012: HOW TO GET A SEWAGE DISPOSAL SYSTEM PERMIT

1. Obtain a **site approval** report (see Section A-014).
2. Make an application for a sewage disposal system permit (see Section A-016).
3. Pay the applicable fees.

A **site evaluation**, a **site approval report** and a sewage disposal system permit are needed to install, repair, or change a system. This applies whether you are an owner, contractor, company or public agency. A permit will only be issued to an owner or the owner's authorized representative (see Definitions of Terms).

A **site evaluation** is the procedure where your consultant and the Department staff meet at your property and evaluate the site's ability to dispose of sewage. This is where the initial soils testing is done, (i.e., "soil test pit"). Once the **site evaluation** is finished, your consultant will prepare and submit to the Department a **site evaluation** report. The Department will then produce a **site approval** report, which approves or disapproves a location on the parcel for a sewage disposal system permit application.

The sewage disposal system permit application is the actual process for obtaining the permit to work on your system.

### A-012: HOW TO GET A SEWAGE DISPOSAL SYSTEM PERMIT

1. Obtain a **department findings** report (see Section A-014).
2. Make an application for a sewage disposal system permit (see Section A-016).
3. Pay the applicable fees.

An **OSSE**, a **department findings** report and a sewage disposal system permit are needed to install, repair, or change a system. This applies whether you are an owner, contractor, company or public agency. A permit will only be issued to an owner or the owner's authorized representative (see Definitions of Terms).

An **OSSE** is the procedure where your consultant and the Department staff meet at your property and evaluate the site's ability to dispose of sewage. This is where the initial soils testing is done, (i.e., "soil test pit"). Once the **OSSE** is finished, your consultant will prepare and submit to the Department an **OSSE** report. The Department will then produce a **department findings** report, which approves or disapproves a location on the parcel for a sewage disposal system permit application.

The sewage disposal system permit application is the actual process for obtaining the permit to work on your system.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

Edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### A-014: SITE EVALUATION PROCESS

- (1) **Review Department Records.** In general, all Department parcel files are public information. You are encouraged to review the property file before you make an application for a site evaluation. A site approval report is not required where soils testing was conducted prior to the adoption of this Chapter and the Department finds that the site and prior test results are acceptable.
- (2) **Obtain A Consultant.** It will be necessary for you to obtain a consultant (see Definitions of Terms) to help in making the site evaluation. This person will work with you and the Department, and assist you in making important decisions affecting your parcel. The consultant is the person that performs your percolation tests, examines your soil test pit, and prepares the OSSE report.
- (3) **Make An Application And Pay The Required Fee**
  - (A) You must then make an application for a site evaluation to the Department and pay the required fee. The Nevada County Board of Supervisors sets the fee.
  - (B) The application form for this service must be filled out completely by the owner or the owner's authorized representative.
  - (C) It is important that sufficient information be provided with the application. This must include (see Diagram 1):
    - (1) An accurate location map. We must be able to find your property.
    - (2) A legible copy of the Assessor's plat.
    - (3) Additional information will be helpful. This could include: a copy of the survey map (if available), location of wells, streams, ponds, drainage ways, proposed house site, existing buildings, existing septic system location, rock outcrops, easements, proposed driveways, and so forth.
- (4) **Schedule The Site Evaluation.** Schedule an appointment with the Department to meet at your property to perform the soil tests. "Soil test pits" are excavations with a backhoe to examine the different soil layers. It is essential that the property boundaries are determined prior to the site evaluation.
- (5) **Conduct The Site Evaluation.**
  - (A) Your consultant, the backhoe and operator, and the Department representative will all meet at the property.
  - (B) A minimum of two (2) soil test pits (see Definitions of Terms) will be excavated in an area proposed for placing a system. In some cases, more soil test pits will be needed to identify a suitable area for the sewage disposal system. With Department approval, a single soil test pit may be allowed when performing site evaluations for repairs to existing systems.
  - (C) Along with the soil test pits, the overall site will be evaluated by the Department and your consultant for other considerations, such as slope, topography, setbacks, road cuts, etc. The Department will complete a field report for each site evaluated. The field report will contain information that defines all areas tested, and comments on the ability to dispose of sewage.
  - (D) All soil test pits must be protected to prevent people and animals from falling in. There are specific State laws which also regulate this. For greatest safety, the soil test pits should be backfilled upon completion of the evaluation. In any case, all soil test pits must be completely backfilled upon completion of the testing.
  - (E) Where sufficient information is already available for the proposed sewage disposal area, the Department may waive the requirement for soil test pits.
- (6) **Concerning Wet Weather Testing.** Some lots need soil test pits dug and observed during a specific time of year, due to seasonal changes in the groundwater. A Wet Weather test period is defined by the time of year when high groundwater is most likely to occur.
  - (A) For Western Nevada County (all land less than 5,000-foot elevation), Wet Weather conditions begin when at least 22-inches of precipitation have fallen commencing July 1 of each year, with at least 5-inches in the last 30 days, in Nevada City. For Eastern Nevada County, Wet Weather conditions occur during the months of March, April, and May. However, these time periods may change depending on the specific conditions in a year, and may be modified by the Department if necessary.
  - (B) The Department may require that a parcel be tested during the Wet Weather test season before a system site is approved, based on revealing conditions seen in the soil test pit. This requirement may also be set based on historical soils information available for an area.
  - (C) The process for conducting a Wet Weather test is similar to the process for conducting a site evaluation. Different types of Wet Weather tests may be permitted based on individual conditions.

### A-014: ON-SITE SOIL EVALUATION (OSSE) PROCESS

- (1) **Review Department Records.** In general, all Department parcel files are public information. You are encouraged to review the property file before you make an application for an OSSE. Proprietary documents may require additional release(s).
- (2) **Obtain A Consultant.** It will be necessary for you to obtain a consultant (see Definitions of Terms) to help in making the OSSE. This person will work with you and the Department, and assist you in making important decisions affecting your parcel. The consultant is the person that performs your percolation tests, examines your soil test pit, and prepares the OSSE report.
- (3) **Submit An Application And Pay The Required Fee**
  - (A) You must then submit an application for an OSSE to the Department and pay the required fee. The Nevada County Board of Supervisors sets the fee.
  - (B) The application form for this service must be filled out completely by the owner or the owner's authorized representative.
  - (C) It is important that sufficient information be provided with the application. This must include (see Diagram 1):
    - (1) An accurate location map. We must be able to find your property.
    - (2) A legible copy of the Assessor's plat.
    - (3) Additional information will be helpful. This could include: a copy of the survey map (if available), location of wells, streams, ponds, drainage ways, proposed house site, existing buildings, existing septic system location, rock outcrops, easements, proposed driveways, and so forth.
- (4) **Schedule The OSSE.** Schedule an appointment with the Department to meet at your property to perform the soil tests. "Soil test pits" are excavations with a backhoe to examine the different soil layers. It is essential that the property boundaries are determined prior to the OSSE.
- (5) **Conduct The OSSE.**
  - (A) Your consultant, the backhoe and operator, and the Department representative will all meet at the property.
  - (B) A minimum of two (2) soil test pits (see Definitions of Terms) will be excavated in an area proposed for placing a system. In some cases, more soil test pits will be needed to identify a suitable area for the sewage disposal system. With Department approval, a single soil test pit may be allowed when performing OSSEs for repairs to existing systems.
  - (C) Along with the soil test pits, the overall site will be evaluated by the Department and your consultant for other considerations, such as slope, topography, setbacks, road cuts, etc. The Department will complete a field report for each site evaluated. The field report will contain information that defines all areas tested, and comments on the ability to dispose of sewage.
  - (D) All soil test pits must be protected to prevent people and animals from falling in. There are specific State laws which also regulate this. For greatest safety, the soil test pits should be backfilled upon completion of the evaluation. In any case, all soil test pits must be completely backfilled upon completion of the testing.
  - (E) Where sufficient information is already available for the proposed sewage disposal area, the Department may waive the requirement for soil test pits.
  - (F) For Land Development projects described in Section A-036 where the anticipated sewage disposal rate is equal to or greater than 600gpd/ac., a nitrogen loading and mounding analysis may be required.
    - (i) The nitrogen loading analysis using Hantzsche and Finnemore Equation will demonstrate that the predicted contribution of nitrogen from the site is less than the MCL for drinking water.
    - (ii) The nitrogen mounding analysis will demonstrate that the vertical separation from highest predicted seasonal groundwater can be maintained.
- (6) **Concerning Wet Weather Testing.** Some lots need soil test pits dug and observed during a specific time of year, due to seasonal changes in the groundwater. A Wet Weather test period is defined by the time of year when high groundwater is most likely to occur.
  - (A) For Western Nevada County (all land less than 5,000-foot elevation), Wet Weather conditions begin when at least 22-inches of precipitation have fallen commencing July 1 of each year, with at least 5-inches in the last 30 days, in Nevada City. For Eastern Nevada County, Wet Weather conditions occur during the months of March, April, and May. However, these time periods may change depending on the specific conditions in a year, and may be modified by the Department if necessary.
  - (B) The Department may require that a parcel be tested during the Wet Weather test season before a system site is

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

- (7) **Have Percolation Tests Performed.** Percolation tests are normally required before a **site evaluation** report can be completed. Percolation tests must be done according to the requirements in the Technical section of these regulations.
- (8) **Obtain A Department Findings Report.** The primary purpose of the **site evaluation** is to determine whether or not a parcel can accommodate a system. If a suitable site is identified at the **site evaluation**, this will be confirmed in the Department's department findings report. It also helps preserve property rights by establishing a probable future sewage disposal site for setback considerations when improvements are proposed for neighboring properties, such as wells, ponds, etc. However, if the **site evaluation** does not identify a suitable area, the OSSE and approval reports will not support the issuing of a sewage disposal system permit.
- (A) Regardless of the outcome of the **site evaluation**, the consultant for the site must provide the Department a **site evaluation** report, including a scaled (1"=50' minimum) site plan identifying the location and results of all soils testing performed. The soils test results provided must show the minimum information required on forms specified by the Department. For sites where a sewage disposal area is identified, the proposed system area and layout must also be shown. The consultant must submit the **site evaluation** report as specified in Section T-052 (3), within 60 days of completion of the **site evaluation**.
- (B) A site approval report must be prepared by the Department before a sewage disposal system permit application can be accepted. (Exception: a department findings report is not required where soils testing was conducted prior to the adoption of these regulations and the Department finds that the site and prior test results are acceptable.) The department findings report is not a permit to install a system.
- (C) The **site approval** report will specify the type(s) of system(s), if any, that can be approved for a specific site. It will also note any specific limitations or conditions that may be part of an approval for a system. If an off-site easement is required for a system, this easement must be recorded and a copy of the recording provided to the Department.
- (D) A **site approval** report is transferable and runs with the land.
- (E) An area approved for a system in a **site approval** report will be considered the same as an already installed system, for purposes of determining on-site or off-site setbacks. An owner may **revoke** a **site approval** report by written request to the Department.
- (F) Future changes in laws governing sewage disposal systems may require a modification to the **site approval** report.
- (G) The **site approval** report and approval for a sewage disposal area are based upon property conditions at the date of the report. Changes made to the property may render that area unacceptable. Examples of types of changes include: grading, cuts and fills, new buildings, wells, ponds, etc. Owners must take care not to encumber or alter the approved area in a manner that affects the future system.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

- (C) approved, based on revealing conditions seen in the soil test pit. This requirement may also be set based on historical soils information available for an area.  
The process for conducting a Wet Weather test is similar to the process for conducting a **OSSE**. Different types of Wet Weather tests may be permitted based on individual conditions.
- (7) **Have Percolation Tests Performed.** Percolation tests are normally required before a **OSSE** report can be completed. Percolation tests must be done according to the requirements in the Technical section of these regulations.
- (8) **Obtain A Department Findings Report.** The primary purpose of the **OSSE** is to determine whether or not a parcel can accommodate a system. If a suitable site is identified at the **OSSE**, this will be confirmed in the Department's department findings report. It also helps preserve property rights by establishing a probable future sewage disposal site for setback considerations when improvements are proposed for neighboring properties, such as wells, ponds, etc. However, if the **OSSE** does not identify a suitable area, the **OSSE** and approval reports will not support the issuing of a sewage disposal system permit.
- (A) Regardless of the outcome of the **OSSE**, the consultant for the site must provide the Department a **OSSE** report, including a scaled (1"=50' minimum) site plan identifying the location and results of all soils testing performed. The soils test results provided must show the minimum information required on forms specified by the Department. For sites where a sewage disposal area is identified, the proposed system area and layout must also be shown. The consultant must submit the **OSSE** report as specified in Section T-052 (3), within 60 days of completion of the **OSSE**.
- (B) A site approval report must be prepared by the Department before a sewage disposal system permit application can be accepted. (Exception: a department findings report is not required where soils testing was conducted prior to the adoption of these regulations and the Department finds that the site and prior test results are acceptable.) The department findings report is not a permit to install a system.
- (C) The **department findings** report will specify the type(s) of system(s), if any, that can be approved for a specific site. It will also note any specific limitations or conditions that may be part of an approval for a system. If an off-site easement is required for a system, this easement must be recorded and a copy of the recording provided to the Department.
- (D) A **department findings** report is transferable and runs with the land.
- (E) An area approved for a system in a **department findings** report will be considered the same as an already installed system, for purposes of determining on-site or off-site setbacks. An owner may **appeal** a **department findings** report by written request to the Department.
- (F) Future changes in laws governing sewage disposal systems may require a modification to the **department findings** report.
- (G) The **department findings** report and approval for a sewage disposal area are based upon property conditions at the date of the report. Changes made to the property may render that area unacceptable. Examples of types of changes include: grading, cuts and fills, new buildings, wells, ponds, etc. Owners must take care not to encumber or alter the approved area in a manner that affects the future system.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

### A-016: WASTEWATER SYSTEM CONSTRUCTION PERMIT APPLICATION PROCESS

- (1) **Permit Required.** A sewage disposal system permit is needed in order for any person to install, replace, repair, abandon, or change a system. This applies whether you are an owner, contractor, company or a public agency. A septic permit is valid for **two (2) years** from the date it is issued. It may be renewed under procedures described in Section A-020.
- (2) **Site Approval Report Required.** A **site approval** report must be on file at the Department before a sewage disposal system permit application for a new installation can be submitted. (Exception: A **site approval** report is not required where soils testing was conducted prior to the adoption of this Chapter and the Department finds that the site and prior test results are acceptable.) In general, all of the Department's property files are public information, and you are encouraged to review your property's file before you make an application.
- (3) **Obtain A Sewage Disposal System Permit Application.** The owner or the owner's authorized representative must fill out the application for the permit. The application must be filled out completely. You can obtain a package of information as well as an application for a sewage disposal system permit (hereafter "Permit") at the Department. It contains useful and helpful information to assist you. Read carefully the materials you receive to help you make a complete application.
- (4) **Apply For The Sewage Disposal System Permit And Pay The Required Fee.** Make sure your application is complete, and that a **site approval** report prepared by the Department is in the Department's file. (Exception: a **site approval** report is not required where soils testing was conducted prior to the adoption of this Chapter and the Department finds that the site and prior test results are acceptable.) You must pay a permit fee when you make your application. The permit fee varies with the type of permit, and the Nevada County Board of Supervisors determines that amount. A complete application includes, at a minimum:
  - (A) A good location map with clear instructions on how to find the property (conditions may have changed since the **site evaluation**).
  - (B) Two (2) copies of a site development plan drawn to scale (see Diagram 2). Scale must not be greater than one (1) inch equals fifty (50) feet. An example of a site development plan is available from the Department. The plan must be drawn so that it is clear and readable. Include the following information on your plans:
    - \*Street address and Assessor's Parcel Number;
    - \*Property boundaries, dimensions and a North arrow;
    - \*All existing and proposed structures/improvements (e.g. houses, barns, wells, driveways, water lines, etc.);
    - \*Any physical features, including rock outcrops, creeks, ponds, drainage courses, cuts, fill areas, springs and similar;
    - \*Any easements, including roads, water lines, NID, power;
    - \*Accurate location of all soils testing done on the property, with numbering to correspond with the **site approval** report;
    - \*Exact location and layout of the proposed system, including any septic tank, pump tank, distribution system, leach field, and 100% replacement area;
  - (C) If it is a special design, or experimental system, include the following:
    - \*The consultant's system design work & calculations; and
    - \*Two (2) copies of a site development plan with the consultant's wet stamp (original) and signature; and
    - \*A Certification from the consultant bearing their original signature and registration number or the stamp of their seal, on a form provided by the Department.
- (5) **Worker's Compensation Responsibility.** When applying for a sewage disposal permit, **be sure that you have completed a Worker's Compensation Declaration or Certificate of Exemption from Workers' Compensation Insurance, in compliance with California State requirements.**
- (6) **Permit To Be Acted Upon.** The Department will either issue, conditionally approve, or deny the permit application within twenty (20) working days after receipt of your completed application.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### A-016: WASTEWATER SYSTEM CONSTRUCTION PERMIT APPLICATION PROCESS

- (1) **Permit Required.** A sewage disposal system permit is needed in order for any person to install, replace, repair, abandon, or change a system. This applies whether you are an owner, contractor, company or a public agency. A septic permit is valid for **one (1) year** from the date it is issued. It may be renewed under procedures described in Section A-020.
- (2) **Department Findings Report Required.** A **department findings** report must be on file at the Department before a sewage disposal system permit application for a new installation can be submitted. (Exception: A **department findings** report is not required where soils testing was conducted prior to the adoption of this Chapter and the Department finds that the site and prior test results are acceptable.) In general, all of the Department's property files are public information, and you are encouraged to review your property's file before you make an application.
- (3) **Obtain A Sewage Disposal System Permit Application.** The owner or the owner's authorized representative must fill out the application for the permit. The application must be filled out completely. You can obtain a package of information as well as an application for a sewage disposal system permit (hereafter "Permit") at the Department. It contains useful and helpful information to assist you. Read carefully the materials you receive to help you make a complete application.
- (4) **Apply For The Sewage Disposal System Permit And Pay The Required Fee.** Make sure your application is complete, and that a **department findings** report prepared by the Department is in the Department's file. (Exception: a **department findings** report is not required where soils testing was conducted prior to the adoption of this Chapter and the Department finds that the site and prior test results are acceptable.) You must pay a permit fee when you make your application. The permit fee varies with the type of permit, and the Nevada County Board of Supervisors determines that amount. A complete application includes, at a minimum:
  - (A) A good location map with clear instructions on how to find the property (conditions may have changed since the **OSSE**).
  - (B) Two (2) copies of a site development plan drawn to scale (see Diagram 2). Scale must not be greater than one (1) inch equals fifty (50) feet. An example of a site development plan is available from the Department. The plan must be drawn so that it is clear and readable. Include the following information on your plans:
    - \*Street address and Assessor's Parcel Number;
    - \*Property boundaries, dimensions and a North arrow;
    - \*All existing and proposed structures/improvements (e.g. houses, barns, wells, driveways, water lines, etc.);
    - \*Any physical features, including rock outcrops, creeks, ponds, drainage courses, cuts, fill areas, springs and similar;
    - \*Any easements, including roads, water lines, NID, power;
    - \*Accurate location of all soils testing done on the property, with numbering to correspond with the **department findings** report;
    - \*Exact location and layout of the proposed system, including any septic tank, pump tank, distribution system, leach field, and 100% replacement area;
  - (C) If it is a special design, include the following:
    - \*The consultant's system design work & calculations; and
    - \*Two (2) copies of a site development plan with the consultant's wet stamp (original) and signature; and
    - \*A Certification from the consultant bearing their original signature and registration number or the stamp of their seal, on a form provided by the Department.
- (5) **Worker's Compensation Responsibility.** When applying for a sewage disposal permit, **it is your responsibility to ensure compliance with any/all applicable state law concerning Workers' Compensation coverage.**
- (6) **Permit To Be Acted Upon.** The Department will either issue, conditionally approve, or deny the permit application within twenty (20) working days after receipt of your completed application.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

### A-018: REASONS YOUR PERMIT MAY BE DELAYED OR DENIED

- (1) Every effort is made to ensure that your permit application is reviewed and approved quickly and with a minimum of problems. However, certain situations may result in delays or denial of a permit application, renewal, or transfer. These include:
- (A) The application is incomplete or contains incorrect information.
  - (B) The proposed system would be in conflict with these regulations, or laws or regulations of another agency.
  - (C) The proposed system is significantly different from what was approved in the **site approval** report.
  - (D) The proposed system location has been modified or encumbered.
  - (E) A public sewer system is available as follows:
    - (1) For existing parcels, the sewer main is within two hundred (200) feet of any boundary of the property, as measured in a straight line; or
    - (2) For proposed Parcel Maps or Final Maps, the sewer connection point is within five hundred (500) feet of any boundary of the property, as measured in a straight line; and
    - (3) The public sewer connection can be legally and physically achieved.
- (2) If your permit is denied for any reason, the Department will notify you in writing. You may appeal a permit denial by following the appeal procedures of Section A-032

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### A-018: REASONS YOUR PERMIT MAY BE DELAYED OR DENIED

- (1) Every effort is made to ensure that your permit application is reviewed and approved quickly and with a minimum of problems. However, certain situations may result in delays or denial of a permit application, renewal, or transfer. These include:
- (A) The application is incomplete or contains incorrect information.
  - (B) The proposed system would be in conflict with these regulations, or laws or regulations of another agency.
  - (C) The proposed system is significantly different from what was approved in the **department findings** report.
  - (D) The proposed system location has been modified or encumbered.
  - (E) A public sewer system is available as follows:
    - (1) For existing parcels, the sewer main is within two hundred (200) feet of any boundary of the property, as measured in a straight line; or
    - (2) For proposed Parcel Maps or Final Maps, the sewer connection point is within five hundred (500) feet of any boundary of the property, as measured in a straight line; and
    - (3) The public sewer connection can be legally and physically achieved.
  - (F) **New construction or repairs prosed within 1,200 feet or in the drainage catchment of an intake point for a surface water treatment plant. Notification of the public water system owner is required prior to issuance of a construction or repair permit.**
  - (G) **Is within the horizontal setback from a public well. Notification of the public water system owner is required prior to issuance of a construction or repair permit.**
- (2) If your permit is denied for any reason, the Department will notify you in writing. You may appeal a permit denial by following the appeal procedures of Section A 032

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### A-020: THE ISSUED PERMIT

Your permit will be issued with certain conditions. These are tailored to your specific parcel conditions and type of system. ~~It is important that the person working on your system has a copy of the approved permit and plans. The conditions on your permit ensure that your system is installed properly.~~ In order to facilitate this:

- (1) The system must be installed according to the permit conditions. Specific conditions of operation and maintenance issued for your septic permit will remain in effect for the life of the system, unless otherwise specified in the permit.
- (2) The person who works on your system must be a licensed contractor or the owner (see Definitions of Terms).
- (3) A copy of your approved permit and plans must be at the job site once the work begins and until the final inspection and approval of the work.
- (4) Your permit is valid for **two (2) years** from the date it is issued. It may be renewed or transferred by following these procedures:
  - (A) Permit Renewal
    - (1) Your permit may be renewed for a maximum of **two (2) additional years**. If your permit has expired; a new application and fee are required.
    - (2) In order to renew your permit, you must make a written request to the Department.
    - (3) A permit considered for renewal may require review to ensure that there have not been significant changes in technology or knowledge that affect the design of the system. In some cases, the consultant may be required to review their design.
    - (4) A renewed permit expires when four (4) years have elapsed from the date the permit was first issued. Any further review requires a new permit application and fee to be paid, consistent with subsection (B).
  - (B) Re-evaluation of Expired Permits: An expired permit is no longer valid. In order to obtain a new permit, a new fee and application are required. When the Department performs an evaluation of your expired permit, consideration is given to the following:
    - (1) A recent history of system failures in the area.
    - (2) The proposed type of system has a history of problems, and/or is no longer approved for use.
    - (3) The Department was not present for the original soil testing, or there is new information about soils in the area.
 A permit issued in this circumstance is considered a new permit.
  - (C) Permit Transfer: A new owner must make a written request for transfer of the permit upon the change of ownership. Expired permits are non-transferable.
- (5) If you propose a change to the septic permit (e.g., adding bedrooms, different type of system, new system location, etc.), an additional review fee and new permit conditions may be required.
- (6) At times, it may be necessary to revise a system design. Either the consultant or the Department may require this due to changes in technology or new information about a particular type of system. This may require the Department to revise the existing permit requirements and/or conditions.

### A-020: THE ISSUED PERMIT

Your permit will be issued with certain conditions. These are tailored to your specific parcel conditions and type of system. The person working on your system shall have a copy of the approved permit and plans. In order to facilitate this:

- (1) The system must be installed according to the permit conditions. Specific conditions of operation and maintenance issued for your septic permit will remain in effect for the life of the system, unless otherwise specified in the permit.
- (2) The person who works on your system must be a licensed contractor or the owner (see Definitions of Terms).
- (3) A copy of your approved permit and plans must be at the job site once the work begins and until the final inspection and approval of the work.
- (4) Your permit is valid for **one (1) year** from the date it is issued. It may be renewed or transferred by following these procedures:
  - (A) Permit Renewal
    - (1) Your permit may be renewed for a maximum of **one (1) additional year**. If your permit has expired; a new application and fee are required.
    - (2) In order to renew your permit, you must make a written request to the Department.
    - (3) A permit considered for renewal may require review to ensure that there have not been significant changes in technology or knowledge that affect the design of the system. In some cases, the consultant may be required to review their design.
    - (4) A renewed permit expires when four (4) years have elapsed from the date the permit was first issued. Any further review requires a new permit application and fee to be paid, consistent with subsection (B).
  - (B) Re-evaluation of Expired Permits: An expired permit is no longer valid. In order to obtain a new permit, a new fee and application are required. When the Department performs an evaluation of your expired permit, consideration is given to the following:
    - (1) A recent history of system failures in the area.
    - (2) The proposed type of system has a history of problems, and/or is no longer approved for use.
    - (3) The Department was not present for the original soil testing, or there is new information about soils in the area.
 A permit issued in this circumstance is considered a new permit.
  - (C) Permit Transfer: A new owner must make a written request for transfer of the permit upon the change of ownership. Expired permits are non-transferable.
- (5) If you propose a change to the septic permit (e.g., adding bedrooms, different type of system, new system location, etc.), an additional review fee and new permit conditions may be required.
- (6) At times, it may be necessary to revise a system design. Either the consultant or the Department may require this due to changes in technology or new information about a particular type of system. This may require the Department to revise the existing permit requirements and/or conditions.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### A-022: GETTING YOUR SYSTEM INSPECTED

Be sure to follow the permit conditions and requirements closely. If the approved permit design requires the consultant to inspect the system, make sure you coordinate the construction inspections with both the consultant and the Department. Clear communication with your system installer and consultant is vital.

- (1) Inspections of the system are required. For special circumstances, an on-site pre-construction meeting may be required. The Department may waive any required inspection with sufficient justification.
- (2) The system must be installed as required by these regulations and any permit conditions. Make sure the installer has a copy of the approved permit and plans. Any changes to the permit or plans must first be approved by the Department and the consultant (if any).
- (3) A request for an inspection must be made to the Department prior to 7:00 AM on the date the inspection. The Department has a 24-hour telephone inspection line to make this process convenient. Incorrect or incomplete inspection request information may delay your inspection.
- (4) The system must be ready for the type of inspection you are requesting. All necessary components must be installed and functional. If extra inspections are needed, an additional inspection fee will be charged.
- (5) An accurate "as-built" or record drawing of the complete installed system must be provided to the inspector at the time of final inspection. ~~The Department will provide an "as-built" drawing form with your permit that can be used to meet this requirement.~~
- (6) Following the inspection, the Department will provide you with a written notice for inspection(s) made of the system. The notice will indicate if any further work or action is required. The system may only be backfilled (covered) with written approval from the Department. For work that is not approved, a correction notice will be provided that specifies the changes to be made as provided in Section A-040.
- (7) When a consultant's inspection is required, they must provide the Department with a written certification. The certification must indicate that the system has been installed in accordance with the approved design. This is required before a permit can receive final approval.
- (8) Systems must be backfilled within ten (10) days of written approval for backfill from the Department and the consultant (if required), or as specified by the approved design. In any case, the system must be protected from damage caused by weather, earth-moving, or other causes, and must not pose a public health and safety hazard. Adequate erosion control measures must be in place in accordance with applicable requirements of other county regulations.
- (9) The Department will issue a Certificate of Satisfactory Completion for the system upon satisfactory completion of the requirements of the permit and these regulations.

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Be sure to follow the permit conditions and requirements closely. If the approved permit design requires the consultant to inspect the system, make sure you coordinate the construction inspections with both the consultant and the Department. Clear communication with your system installer and consultant is vital.

- (1) Inspections of the system are required. For special circumstances, an on-site pre-construction meeting may be required. The Department may waive any required inspection with sufficient justification.
- (2) The system must be installed as required by these regulations and any permit conditions. Make sure the installer has a copy of the approved permit and plans. Any changes to the permit or plans must first be approved by the Department and the consultant (if any).
- (3) A request for an inspection must be made to the Department prior to 7:00 AM on the date the inspection. The Department has a 24-hour phone inspection line to make this process convenient. Incorrect or incomplete inspection request information may delay your inspection.
- (4) The system must be ready for the type of inspection you are requesting. All necessary components must be installed and functional. If extra inspections are needed, an additional inspection fee will be charged.
- (5) An accurate "as-built" or record drawing of the complete installed system must be provided to the inspector at the time of final inspection. The "as-built" should include APN, Address, installation date, installers name, contractor's license number if applicable, installers phone number, accurate and identifiable location and dimensions of disposal field, tank and system components related to a permanent known reference point.
- (6) Following the inspection, the Department will provide you with a written notice for inspection(s) made of the system. The notice will indicate if any further work or action is required. The system may only be backfilled (covered) with written approval from the Department. For work that is not approved, a correction notice will be provided that specifies the changes to be made as provided in Section A-040.
- (7) When a consultant's inspection is required, they must provide the Department with a written certification. The certification must indicate that the system has been installed in accordance with the approved design. This is required before a permit can receive final approval.
- (8) Systems must be backfilled within ten (10) days of written approval for backfill from the Department and the consultant (if required), or as specified by the approved design. In any case, the system must be protected from damage caused by weather, earth-moving, or other causes, and must not pose a public health and safety hazard. Adequate erosion control measures must be in place in accordance with applicable requirements of other county regulations.
- (9) The Department will issue a Certificate of Satisfactory Completion for the system upon satisfactory completion of the requirements of the permit and these regulations



## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### A-024: HOW TO MAKE CHANGES OR REPAIRS TO YOUR EXISTING SYSTEM

### A-024: HOW TO MAKE CHANGES OR REPAIRS TO YOUR EXISTING SYSTEM

- (1) **A Permit Is Required.** A system permit is required for you to change, **repair**, or increase the sewage flow to your existing system. However, a permit is **not** required for servicing or replacing installed mechanical or electrical parts of the system. This would include such items as: float switches, pumps, electrical box, sanitary tee in the septic tank, etc. (Note: a building permit may be needed for some of this work—check with your local building authority). Replacement or addition of a septic tank or leachfield **does** require a sewage disposal system permit.
- (2) **Obtain A Site Evaluation.** For certain types of changes or alterations to your system, a **site evaluation** may be required, as described in Section A-014. For purposes of this Section only, the Department may waive the requirement of a consultant for the **site evaluation**. Examples of situations that may require a **site evaluation** include: a failing system, adding a bedroom to your house, and relocating your system.
- (3) **Make Your Permit Application.** The process for applying for this type of permit is similar to the procedure described in Section A-016. A permit will be issued if the regulation's requirements can be met, there is an approved **site approval** report (if applicable), and the proposed system will not create a public health hazard or degrade or pollute the public waters.
- (4) **Special Considerations for System Repairs.** A failing system (see Definitions of Terms) creates a public health hazard and/or can pollute water.
  - (A) **(1)** A failing system must be immediately repaired, or its use immediately discontinued. The Department will require temporary measures to eliminate a public health hazard.
  - (2)** If an immediate repair cannot be accomplished, the Department may allow a delay in making the repair. In this case, a Notice of Violation will be issued as described in Section A-040 (3), and will specify temporary measures required to eliminate the immediate public health hazard or pollution of public waters.
  - (B) **(1)** If the site will allow for a standard system, this type of system must be used.
  - (2)** If the site does not meet the requirements for a standard system, the Department may approve a permit for a special design system so long as those requirements can be met.
  - (3)** If the site does not meet the requirements for a standard or special design system, the Department may approve a permit for **an experimental system** or other repair in order to eliminate a health hazard.
  - (4)** Where no type of system can be approved, the system must be abandoned as described in Section A-028.

- (1) **A Permit Is Required.** A system permit is required for you to change, **alter**, or increase the sewage flow to your existing system. However, a permit is **not** required for servicing or replacing installed mechanical or electrical parts of the system. This would include such items as: float switches, pumps, electrical box, sanitary tee in the septic tank, etc. (Note: a building permit may be needed for some of this work—check with your local building authority). Replacement or addition of a septic tank or leachfield **does** require a sewage disposal system permit.
- (2) **Obtain An OSSE.** For certain types of changes or alterations to your system, an **OSSE** may be required, as described in Section A-014. For purposes of this Section only, the Department may waive the requirement of a consultant for the **OSSE**. Examples of situations that may require an **OSSE** include: a failing system, adding a bedroom to your house, and relocating your system.
- (3) **Make Your Permit Application.** The process for applying for this type of permit is similar to the procedure described in Section A-016. A permit will be issued if the regulation's requirements can be met, there is an approved **department findings** report (if applicable), and the proposed system will not create a public health hazard or degrade or pollute the public waters.
- (4) **Special Considerations for System Repairs.** A failing system (See Definition of Terms (**Error! Bookmark not defined.**)) creates a public health hazard and/or can pollute water.
  - (A) A failing system must be immediately repaired, or its use immediately discontinued. The Department will require temporary measures to eliminate a public health hazard.
  - (B) If an immediate repair cannot be accomplished, the Department may allow a delay in making the repair. In this case, a Notice of Violation will be issued as described in Section A-040 (3), and will specify temporary measures required to eliminate the immediate public health hazard or pollution of public waters.
  - (C) If the site will allow for a standard system, this type of system must be used.
  - (D) If the site does not meet the requirements for a standard system, the Department may approve a permit for a special design system so long as those requirements can be met.
  - (E) If the site does not meet the requirements for a standard or special design system, the Department may approve a permit for **a variance** or other repair in order to eliminate a health hazard.
  - (F) Where no type of system can be approved, the system must be abandoned as described in Section A-028.

- (5) Obtain A Certificate of Satisfactory Completion.** The Department will issue a Certificate of Satisfactory Completion for the system upon satisfactory completion of the requirements of the permit and these regulations. **\*\*Removed entire section\*\***

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

**A-026: MONITORING AND MAINTENANCE OF YOUR SYSTEM**

- (1) With the advent of approval of new and innovative methods to develop on-site sewage disposal systems comes the responsibility and requirements to ensure that these types of systems will function properly. While these systems provide a greater ability to utilize parcels previously designated as "unbuildable", failure to properly operate, monitor and maintain these types of disposal systems will lead to subsequent failure, resulting in health hazards, water pollution, and financial and legal woes for the property owner.
  
- (2) A program of monitoring, operation and maintenance of systems is specified below. Additional performance criteria will be developed by the Department in alliance with the community to more fully implement the overall program framework described below.  
  
The additional performance criteria will be reviewed by the Sewage Disposal Technical Advisory Group and the California Regional Water Quality Control Board.
  
- (3) This program will be administered by the Department to ensure safe property development and use of these systems. Refer to Section T-054 Special Design System Requirements.
  
- (4) The program includes, at a minimum:
  - (A) All applicable special design systems.
  - (B) Property owners obtaining a permit for these systems, or new owners taking legal possession of an existing system, are required to sign and record an Agreement with the property title. The Agreement states that the owner will operate and maintain these systems and comply with all applicable requirements in existence, or as may be lawfully changed from time-to-time as described in sub-section (D) below.
  - (C) Property owners obtaining a permit for these systems, or new owners taking legal possession of these systems, are required to sign and record an Right of Entry Agreement and Monitoring and Maintenance Agreement with the property title. The Right of Entry Agreement and Monitoring and Maintenance Agreement permits Department staff or certified persons hired to fulfill the requirements of this Section, to enter upon the property at reasonable times and with prior notification, by procedures approved by the Nevada County Board of Supervisors.
  - (D) The Department may implement changes in requirements for the monitoring, inspection, and maintenance of these systems for just cause, and upon review by the Sewage Disposal Technical Advisory Group, based on new or revised information, or practical experience.
  - (E) Monitoring, inspection and/or maintenance may only be performed by persons who are currently registered, licensed, or certified by the State of California under the Business and Professions Code, and fulfill the requirements of sub-section (F) that follow. Other professional classifications may be considered by the Department on a case-by-case basis.
  - (F) All persons performing the monitoring, inspection or maintenance service on these systems must be certified by passing a test administered by the Department, demonstrating knowledge and competency in applicable sewage disposal principals. The certification must be valid and current in order to provide this service.
  - (G) Department staff may make periodic quality assurance checks to ensure that certified system service providers are adhering to the requirements of the regulations, and policies and procedures established for implementation of the regulations. The Department may suspend or revoke a person's certification for just cause.
  - (H) All owners of systems covered by this Section will possess and maintain an annual operating permit issued by the Department. The operating permit may be suspended or revoked for failure to adhere to the requirements of the regulations, policies and procedures established for implementation of the regulations. The Department is authorized to take enforcement action described in Section A-040 to ensure that the system does not create a health hazard or pollution.
  
- (5) Enforcement action may be taken under any applicable Section of these regulations. For purposes of this Section, a system which is not in compliance with this Section may be considered a "failing system", and corrective actions may be taken by the Department as described in Section A-024 (4).

**A-026: MONITORING AND MAINTENANCE OF YOUR SYSTEM**

- (1) With the advent of approval of new and innovative methods to develop on-site sewage disposal systems comes the responsibility and requirements to ensure that these types of systems will function properly. While these systems provide a greater ability to utilize parcels previously designated as "unbuildable", failure to properly operate, monitor and maintain these types of disposal systems will lead to subsequent failure, resulting in health hazards, water pollution, and financial and legal woes for the property owner.
  
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- (4) The program includes, at a minimum:
  - (A) All applicable special design systems.
  - (B) Property owners obtaining a permit for these systems, or new owners taking legal possession of an existing system, are required to sign and record an Agreement with the property title. The Agreement states that the owner will operate and maintain these systems and comply with all applicable requirements in existence, or as may be lawfully changed from time-to-time as described in sub-section (D) below.
  - (C) Property owners obtaining a permit for these systems, or new owners taking legal possession of these systems, are required to sign and record a Right of Entry Agreement and Monitoring and Maintenance Agreement with the property title. The Right of Entry Agreement and Monitoring and Maintenance Agreement permits Department staff or certified persons hired to fulfill the requirements of this Section, to enter upon the property at reasonable times and with prior notification, by procedures approved by the Nevada County Board of Supervisors.
  - (D) The Department may implement changes in requirements for the monitoring, inspection, and maintenance of these systems for just cause, and upon review by the Sewage Disposal Technical Advisory Group, based on new or revised information, or practical experience.
  - (E) Monitoring, inspection and/or maintenance may only be performed by persons who are currently registered, licensed, or certified by the State of California under the Business and Professions Code, and fulfill the requirements of sub-section (F) that follow. Other professional classifications may be considered by the Department on a case-by-case basis.
  - (F) All persons performing the monitoring, inspection or maintenance service on these systems must be certified by passing a test administered by the Department, demonstrating knowledge and competency in applicable sewage disposal principals. The certification must be valid and current in order to provide this service.
  - (G) The Maintenance and Monitoring permit requires the property owner or new property owners to submit an annual fee as set by the Department and approved by the Nevada County Board of Supervisors. The provisions of the permit require the property owner or new property owner to submit payment for the permit along with yearly maintenance and monitoring reports from a registered, licensed or certified persons by the State of California under the Business and Professions Code on an annual basis. Failure to maintain an active permit for the special design system maintenance and monitoring may result in suspension of the permit and other corrective actions may be taken by the Department.
  - (H) Department staff may make periodic quality assurance checks to ensure that certified system service providers are adhering to the requirements of the regulations, and policies and procedures established for implementation of the regulations. The Department may suspend or revoke a person's certification for just cause.
  - (I) All owners of systems covered by this Section will possess and maintain an annual operating permit issued by the Department. The operating permit may be suspended or revoked for failure to adhere to the requirements of the regulations, policies and procedures established for implementation of the regulations. The Department is authorized to take enforcement action described in Section A-040 to ensure that the system does not create a health hazard or pollution.
  
- (5) Enforcement action may be taken under any applicable Section of these regulations. For purposes of this Section, a system which is not in compliance with this Section may be considered a "failing system", and corrective actions may be taken by the Department as described in Section A-024 (4).

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### A-028: HOW TO ABANDON A SYSTEM

- (1) **When A System Must Be Abandoned.** Your system must be abandoned under the following situations:
  - (A) If you have connected to an approved sewer system.
  - (B) The system will no longer be used.
  - (C) If you have received a notice or order from the Department to abandon the system (for reasons such as: the system has failed and cannot be repaired, an illegal system, etc.).
  
- (2) **How To Abandon The System.**
  - (A) A permit must be obtained before you abandon a system. The application for abandoning the system must include:
    - (1) Two (2) copies of a site plan showing where the septic tank and leachfield are located.
    - (2) A description of how the system will be abandoned.
  - (B) The septic tank must be pumped by a licensed septic tank pumper (a list of licensed pumpers is available from the Department) to remove the contents. You must provide a receipt to the Department showing that this was done.
  - (C) The septic tank must be abandoned as follows:
    - (1) If possible, the septic tank cover will be collapsed, or,
    - (2) If the septic tank cover cannot be collapsed, the tank will be filled so that there is not a cave-in or other structural hazard, or,
    - (3) The septic tank may be removed to a facility approved to accept septic tanks, and
    - (4) The septic tank or excavation hole must be filled with clean earth, sand, gravel, or other material approved by the Department.
  - (D) The building wastewater plumbing system, if not connected to an approved septic or sewer system, must be permanently capped.
  - (E) Future construction in the abandoned system area may require special construction considerations.
  - (F) Additional permit requirements may be necessary in order to mitigate unique problems associated with the abandonment of the system.
  
- (3) **Obtain A Certificate of Satisfactory Completion.** The Department will issue a Certificate of Satisfactory Completion for the system upon satisfactory completion of the requirements of the permit and these regulations

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  - (D) The building wastewater plumbing system, if not connected to an approved septic or sewer system, must be permanently capped.
  - (E) Future construction in the abandoned system area may require special construction considerations.
  - (F) Additional permit requirements may be necessary in order to mitigate unique problems associated with the abandonment of the system.
  
- (3) **Obtain Final Approval of System Abandonment Permit.**

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### A-030: HOW TO OBTAIN A VARIANCE

You can apply for a variance from any requirement of these regulations. However, a variance can only be given to reduce or modify a requirement, not eliminate it entirely. In reviewing a variance, sufficient information must be provided by the applicant so that the Director can make a finding that there will not be a health hazard or pollution created, along with other requirements listed below.

- (1) No variance will be granted that constitutes a grant of a special privilege inconsistent with limitations placed upon other properties in the vicinity and zoning district. An application for a variance must show:
  - (A) Special circumstance(s) exist(s) for the property that create(s) a unique hardship, or that will deprive the owner of privileges enjoyed for other property in the vicinity and zoning district in which such property is located; and
  - (B) The hardship was not intentionally caused by the action of the applicant; and
  - (C) Granting the variance would not have any significant adverse environmental effect and would not significantly affect use of adjoining property; and
  - (D) Reduction of requirements would not present a public health hazard or the pollution or degradation of public waters.
- (2) The procedure for applying for a variance is as follows:
  - (A) Obtain an information packet from the Department. It includes useful and helpful information to assist you. Read carefully the materials you receive to help you make a complete application.
  - (B) Submit the completed application and any needed supplemental information to the Department. You must pay a review fee at that time. The Nevada County Board of Supervisors sets the fee.
- (3) The Director or designated staff will review and investigate the variance application and either approve, conditionally approve, or deny it in writing within fifteen (15) working days from the date a completed application was received. For unique, lengthy, or complex variances, the applicant may choose to waive the 15-day time period in writing to the Department. California Environmental Quality Act (CEQA) time frames apply to projects where CEQA review is required for that variance. Variances are reviewed on a case-by-case basis.
- (4) After conclusion of the investigation, the Director will prepare a written order of specific findings of fact and reasons for granting or denying your variance.
- (5) An applicant or any person interested in the variance may appeal any decision of the Director regarding the variance. See Section A-032 for the appeal procedure.

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  - (A) Special circumstance(s) exist(s) for the property that create(s) a unique hardship, or that will deprive the owner of privileges enjoyed for other property in the vicinity and zoning district in which such property is located; and
  - (B) The hardship was not intentionally caused by the action of the applicant; and
  - (C) Granting the variance would not have any significant adverse environmental effect and would not significantly affect use of adjoining property; and
  - (D) Reduction of requirements would not present a public health hazard or the pollution or degradation of public waters.
  - (E) For new and replacement OWTS, installed on parcels of record existing at the time prior to January 1, 2013, that cannot meet the horizontal separation requirements for surface water intakes and public wells, the OWTS shall meet the horizontal separation to the greatest extent practicable and shall utilize supplemental treatment for pathogens as specified in section 10.8 of the State OWTS Policy. Supplemental treatment for pathogens requires components designed to perform disinfection shall provide sufficient pretreatment of the wastewater so that effluent from the supplemental treatment components does not exceed a 30-day average TSS of 30 mg/L and shall further achieve an effluent fecal coliform bacteria concentration less than or equal to 200 Most Probable Number (MPN) per 100 milliliters (OWTS Policy 10.10.1.) In addition, The minimum soil depth and the minimum depth to the anticipated highest level of groundwater below the bottom of the dispersal system shall not be less than three (3) feet. All dispersal systems shall have at least twelve (12) inches of soil cover. (OWTS Policy 10.10.2.)
- (2) The procedure for applying for a variance is as follows:
  - (A) Obtain an information packet from the Department. It includes useful and helpful information to assist you. Read carefully the materials you receive to help you make a complete application.
  - (B) Submit the completed application and any needed supplemental information to the Department. You must pay a review fee at that time. The Nevada County Board of Supervisors sets the fee.
- (3) The Director or designated staff will review and investigate the variance application and either approve, conditionally approve, or deny it in writing within fifteen (15) working days from the date a completed application was received. For unique, lengthy, or complex variances, the applicant may choose to waive the 15-day time period in writing to the Department. California Environmental Quality Act (CEQA) time frames apply to projects where CEQA review is required for that variance. Variances are reviewed on a case-by-case basis.
- (4) After conclusion of the investigation, the Director will prepare a written order of specific findings of fact and reasons for granting or denying your variance.
- (5) An applicant or any person interested in the variance may appeal any decision of the Director regarding the variance. See Section A-032 for the appeal procedure.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

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## NEW Regulation

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\*new additions/changes highlighted\*

**A-032: HOW TO APPEAL A DECISION MADE BY THE DEPARTMENT**

**Appeal Procedure.** Any Department decision can be appealed. The appeal is initially routed through the Department to the Sewage Disposal Technical Advisory Group. The decision by the Sewage Disposal Technical Advisory Group may be appealed to the Board of Supervisors.

- (1) An appeal application form is available from the Department. The appeal form must be filled out completely and returned to the Department with the appropriate fee within twenty (20) working days of the date of the decision. It is important that you provide any necessary information in support of your appeal (see the form for guidance).
- (2) A hearing will be scheduled within twenty (20) working days of receipt of a completed appeal application. You will be notified of the date, time and place of the hearing. The chairperson of the Sewage Disposal Technical Advisory Group will conduct the meeting. After consideration of all the relevant information, the Sewage Disposal Technical Advisory Group will provide a written decision on the appeal that may affirm, modify, or reverse the Department's decision. This decision will be provided within twenty (20) working days of the hearing.
- (3) You may appeal the decision of the Sewage Disposal Technical Advisory Group to the Nevada County Board of Supervisors. An appeal application form is available at their office. The appeal form must be filled out and returned with the appropriate fee to the Nevada County Board of Supervisors within ten (10) calendar days of the written decision by the Group.
- (4) Upon receipt of your appeal, a hearing will be scheduled and a decision rendered according to the procedure established for land use appeals in Article 33 of Chapter II of the Nevada County Land Use and Development Code. After consideration of all the relevant information, the Nevada County Board of Supervisors will provide a written decision on the appeal that may affirm, modify, or reverse the Sewage Disposal Technical Advisory Group's decision. The decision of the Nevada County Board of Supervisors is final.

**A-032: HOW TO APPEAL A DECISION MADE BY THE DEPARTMENT**

**Appeal Procedure.** Any Department decision can be appealed. The appeal is initially routed through the Department to the Sewage Disposal Technical Advisory Group. The decision by the Sewage Disposal Technical Advisory Group may be appealed to the Board of Supervisors.

- (1) An appeal application form is available from the Department. The appeal form must be filled out completely and returned to the Department with the appropriate fee within twenty (20) working days of the date of the decision. It is important that you provide any necessary information in support of your appeal (see the form for guidance).
- (2) A hearing will be scheduled within twenty (20) working days of receipt of a completed appeal application. You will be notified of the date, time and place of the hearing. The chairperson of the Sewage Disposal Technical Advisory Group will conduct the meeting. After consideration of all the relevant information, the Sewage Disposal Technical Advisory Group will provide a written decision on the appeal that may affirm, modify, or reverse the Department's decision. This decision will be provided within twenty (20) working days of the hearing.
- (3) You may appeal the decision of the Sewage Disposal Technical Advisory Group to the Nevada County Board of Supervisors. An appeal application form is available at their office. The appeal form must be filled out and returned with the appropriate fee to the Nevada County Board of Supervisors within ten (10) calendar days of the written decision by the Group.
- (4) Upon receipt of your appeal, a hearing will be scheduled and a decision rendered according to the procedure established for land use appeals in Article 33 of Chapter II of the Nevada County Land Use and Development Code. After consideration of all the relevant information, the Nevada County Board of Supervisors will provide a written decision on the appeal that may affirm, modify, or reverse the Sewage Disposal Technical Advisory Group's decision. The decision of the Nevada County Board of Supervisors is final.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

<b>A-034: SEWAGE DISPOSAL TECHNICAL ADVISORY GROUP</b>	<b>A-034: SEWAGE DISPOSAL TECHNICAL ADVISORY GROUP</b>
<p>(1) <b>An Advisory Group Will Be Established.</b> A Sewage Disposal Technical Advisory Group is hereby established. It is comprised of five (5) consultants, one (1) realtor and one (1) licensed contractor one (1) appointed from each Board of Supervisors district, who will serve at the pleasure of that Supervisor. Each Group member will be qualified by experience and training to pass on matters pertaining to sewage disposal. Said Group members may not be employees of the County of Nevada. The members may be selected from the County at large without regard for supervisorial district.</p> <p>The Director shall be an ex-officio member and serve as secretary to the Group, but shall have no vote upon any matter before the Group.</p> <p><del>The County Health Officer will serve as a voting member for the purposes of this appeal procedure as described in Section A-032.</del></p> <p>(2) <b>Sewage Disposal Technical Advisory Group Purpose.</b> The purpose of the Sewage Disposal Technical Advisory Group will be to:</p> <p>(A) Review and recommend proposed revisions and additions to the sewage disposal regulations or sewage disposal ordinance in an advisory capacity.</p> <p>(B) Review and recommend new methods, techniques, and materials for on-site sewage disposal, in an advisory capacity.</p> <p>(C) Serve as an appeal body under the provisions of Section A-032. The Group is not empowered to waive requirements of these Regulations. No member may participate in an appeal to which they are a party.</p> <p>(3) <b>Group Organization.</b> The Sewage Disposal Technical Advisory Group will elect a chairperson. The group will adopt reasonable rules of procedure and conduct subject to the approval of the Board of Supervisors.</p>	<p>(1) <b>An Advisory Group Will Be Established.</b> A Sewage Disposal Technical Advisory Group is hereby established. It is comprised of five (5) consultants, one (1) realtor and one (1) licensed contractor one (1) appointed from each Board of Supervisors district, who will serve at the pleasure of that Supervisor. Each Group member will be qualified by experience and training to pass on matters pertaining to sewage disposal. Said Group members may not be employees of the County of Nevada. The members may be selected from the County at large without regard for supervisorial district.</p> <p>The Director shall be an ex-officio member and serve as secretary to the Group, but shall have no vote upon any matter before the Group.</p> <p>(2) <b>Sewage Disposal Technical Advisory Group Purpose.</b> The purpose of the Sewage Disposal Technical Advisory Group will be to:</p> <p>(A) Review and recommend proposed revisions and additions to the sewage disposal regulations or sewage disposal ordinance in an advisory capacity.</p> <p>(B) Review and recommend new methods, techniques, and materials for on-site sewage disposal, in an advisory capacity.</p> <p>(C) Serve as an appeal body under the provisions of Section A-032. The Group is not empowered to waive requirements of these Regulations. No member may participate in an appeal to which they are a party.</p> <p>(3) <b>Group Organization.</b> The Sewage Disposal Technical Advisory Group will elect a chairperson. The group will adopt reasonable rules of procedure and conduct subject to the approval of the Board of Supervisors.</p>

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### A-036: LAND DEVELOPMENT REQUIREMENTS

- (1) These standards apply to any proposed land development project, including land divisions, use permits, site plans, etc. It is important to demonstrate that a proposed land development project will be able to dispose of sewage safely. Unless otherwise approved by the Department, the **site evaluation** process of Section A-014 will be used to demonstrate sewage disposal.
- (2) The **site evaluation** process listed in Section A-014 must be completed and the **site evaluation** report submitted to the Department concurrently with the project application to the Nevada County Planning Department.

The location of the **site evaluation** must be in a place on the site where a system could be located so as not to conflict with any other applicable county requirements, including, without limitation, those contained in the county General Plan or the county zoning regulations, for example, site development standards to protect environmentally sensitive resources (such as wetlands, landmark groves of hardwood trees or steep slopes).

- (3) Requirements for subdivisions:

- (A) This is the minimum number of **site evaluation** reports that must be submitted at the time of application to the Nevada County Planning Department:

Parcel Size	Percent To Be Tested
Less than 5 acres:	Each proposed parcel
5 up to 9.99 acres:	50% of proposed parcels
10 up to 19.99 acres:	30% of proposed parcels
20 acres or greater:	10% of proposed parcels

All proposed parcels must have a satisfactory **site approval** report as specified in Section A-014 (8), prior to recordation of the map. This requirement may be waived by the Department for subdivisions creating parcels 40 acres or greater.

- (B) The **site evaluation** locations must be distributed throughout the subdivision so as to be representative of logical building sites in the varying conditions found.
- (C) The supplemental map recorded with the final record map must include a Minimum Useable Sewage Disposal Area for each proposed parcel. The site for the Minimum Useable Sewage Disposal Area shall meet all the requirements for a Standard or Special Design system, except that slopes cannot exceed 30%. The site must also meet the setback distances as shown in Table 1 of these regulations. Prior to final map approval the consultant of record must approve the representation of all pertinent soils test locations and the MUSDA locations. The supplemental map shall include the following statement "The MUSDA's represent a 3 bedroom installation. Any larger systems may require additional soils testing".
- (D) The Minimum Useable Sewage Disposal Area must meet the following size requirements:

Design Percolation Rate	Pressurized Distribution	Supplemental Treatment	Gravity-Flow Distribution
1-5	*	6,000 ft <sup>2</sup>	*
6-20	6,000 ft <sup>2</sup>	6,000 ft <sup>2</sup>	9,000 ft <sup>2</sup>
21-40	8,000 ft <sup>2</sup>	8,000 ft <sup>2</sup>	12,000 ft <sup>2</sup>

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- (1) These standards apply to any proposed land development project, including land divisions, use permits, site plans, etc. It is important to demonstrate that a proposed land development project will be able to dispose of sewage safely. Unless otherwise approved by the Department, the **OSSE** process of Section A-014 will be used to demonstrate sewage disposal.
- (2) The **OSSE** process listed in Section A-014 must be completed and the **OSSE** report submitted to the Department concurrently with the project application to the Nevada County Planning Department.

The location of the **OSSE** must be in a place on the site where a system could be located so as not to conflict with any other applicable county requirements, including, without limitation, those contained in the county General Plan or the county zoning regulations, for example, site development standards to protect environmentally sensitive resources (such as wetlands, landmark groves of hardwood trees or steep slopes).

- (3) Requirements for subdivisions:

- (A) This is the minimum number of **OSSE** reports that must be submitted at the time of application to the Nevada County Planning Department:

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Less than 5 acres:	Each proposed parcel
5 up to 9.99 acres:	50% of proposed parcels
10 up to 19.99 acres:	30% of proposed parcels
20 acres or greater:	10% of proposed parcels

All proposed parcels must have a satisfactory department findings report as specified in Section A-014 (8), prior to recordation of the map. This requirement may be waived by the Department for subdivisions creating parcels 40 acres or greater.

- (B) The **OSSE** locations must be distributed throughout the subdivision so as to be representative of logical building sites in the varying conditions found.
- (C) The supplemental map recorded with the final record map must include a Minimum Useable Sewage Disposal Area for each proposed parcel. The site for the Minimum Useable Sewage Disposal Area shall meet all the requirements for a Standard or Special Design system, except that slopes cannot exceed 30%. The site must also meet the setback distances as shown in Table 1 of these regulations. Prior to final map approval the consultant of record must approve the representation of all pertinent soils test locations and the MUSDA locations. The supplemental map shall include the following statement "The MUSDA's represent a 3 bedroom installation. Any larger systems may require additional soils testing".
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1-5	*	6,000 ft <sup>2</sup>	*

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

41-60	10,000 ft <sup>2</sup>	10,000 ft <sup>2</sup>	15,000 ft <sup>2</sup>
61-90	13,000 ft <sup>2</sup>	13,000 ft <sup>2</sup>	18,000 ft <sup>2</sup>
91-120	15,000 ft <sup>2</sup>	15,000 ft <sup>2</sup>	*
121-240	*	18,000 ft <sup>2</sup>	*

\*This type of system is not allowed for the creation of parcels.

(E) Where there is an existing system on a proposed parcel in a subdivision, the Department may permit a system evaluation in place of providing a Minimum Useable Sewage Disposal Area. The system evaluation may include an on-site inspection of the system, a **site evaluation**, and demonstrating a 100% repair area. If the results of the system evaluation are satisfactory, the 100% repair area will be shown on the supplemental map for the final record map, instead of a Minimum Useable Sewage Disposal Area for that parcel.

(4) Except for Centralized Systems as defined in Chapter L-VI Article 3 of the Nevada County Land Use and Development Code, off-site sewage disposal easements may not be used for creating parcels.

(5) All other land development projects must provide at least one approved **site evaluation** report, unless otherwise approved by the Department. Depending upon the scope and nature of the project, the Department may require additional soils testing in order to ensure an adequate system.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

6-20	6,000 ft <sup>2</sup>	6,000 ft <sup>2</sup>	9,000 ft <sup>2</sup>
21-40	8,000 ft <sup>2</sup>	8,000 ft <sup>2</sup>	12,000 ft <sup>2</sup>
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61-90	13,000 ft <sup>2</sup>	13,000 ft <sup>2</sup>	18,000 ft <sup>2</sup>
91-120	15,000 ft <sup>2</sup>	15,000 ft <sup>2</sup>	*
121-240	*	18,000 ft <sup>2</sup>	*

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## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\***edits/deletions highlighted**

**A-038: CENTRALIZED SEWAGE DISPOSAL SYSTEM REQUIREMENTS**

Centralized sewage disposal systems must meet the requirements of the Nevada County Land Use and Development Code Chapter L-VI Article 3.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\***new additions/changes highlighted**\*

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## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted\*

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### A-040: ENFORCEMENT AND PENALTIES FOR NON-COMPLIANCE

Most residents of Nevada County strive to meet the necessary requirements to ensure that sewage is disposed in a safe and healthful manner. The Department stresses education and cooperation over enforcement. However, when a violation of these regulations exist or the public health could be threatened, this Section applies.

- (1) **Violations.** It is unlawful to construct, install, replace, alter, **repair**, enlarge, operate, abandon, **or maintain a system**, or to increase sewage flows to a system, except in conformance with these regulations. Any person who violates any of the regulations or conditions of a permit or causes or maintains a public health hazard may be charged criminally or be subject to civil abatement action to stop the violation, and may be assessed fines, penalties and/or costs.
- (2) **Right of Entry.** The Health Officer, Code Enforcement Officer and the Department are authorized to enforce the requirements of these regulations. Any of them may enter upon any premises to make inspections and perform tests for the purpose of enforcement of code provisions or these regulations or the abatement of a public health hazard or public nuisance, so long as they do so in compliance with State and Federal law. If consent is not given to a search where necessary, an administrative inspection warrant may be secured upon reasonable cause, allowing the inspection.
- (3) **Enforcement Actions.** When a violation, public health hazard or public nuisance has been verified, a Notice of Violation, Correction Notice, and/or Stop Work Order may be issued. A sewage disposal system permit may also be suspended or revoked and any enforcement action permitted by law may be commenced to cure the violation.
  - (A) **Notice of Violation:** The Department may issue a Notice of Violation which directs the cessation or correction of a violation or public health hazard. ~~The notice will direct immediate measures required to eliminate a potential or actual public health hazard or a public nuisance.~~ Any further enforcement action permitted by law may be commenced to cure if there is a failure to comply with the requirements of a Notice of Violation.
  - (B) **Correction Notice:** The Department may issue a Correction Notice upon a person responsible for working on a system or operating a system where that work or operation is in violation of these regulations and/or conditions of the sewage disposal system permit or operating permit. The Correction Notice will state the measures that must be taken to correct the violation. Failure to comply with the requirements of a Correction Notice is a violation of these regulations, and is subject to any enforcement action permitted by law.
  - (C) **Stop Work Order:** The Department may issue a Stop Work Order for work that is in violation of these regulations, the sewage disposal system permit, or is occurring in an unsafe and dangerous manner. The Stop Work Order will be issued to the person responsible for the work, and will specify the reason for the Stop Work Order. It may also direct corrective measures necessary to abate the violation. Work may only recommence upon written release by the Department. Failure to comply with the requirements of a Stop Work Order is a violation of these regulations, and is subject to any enforcement action permitted by law.
  - (D) **Permit Suspension or Revocation:**
    - (1) When the construction or operation of a system is in violation of these regulations or conditions of the permit, or where a person has misrepresented any material fact in the application for a permit, the Department may suspend or revoke the permit.
    - (2) The Department will provide the owner a written notice of intent to suspend or revoke a permit. The owner will be given the opportunity to request a hearing before the Department. A written request for a hearing must be received by the Department within ten (10) working days of the Department's written notice. A failure to request the hearing within the ten (10) working days is deemed a waiver of the right to a hearing.
    - (3) The Department will schedule a hearing within ten (10) working days from the receipt of a written request for a hearing. The Director of the Department shall conduct the hearing. The decision resulting from the hearing may be appealed in accordance with the appeal procedures of Section A-032.
    - (4) No work, use or operation may continue on a system where the permit has been suspended or revoked. Work or operation on a system may recommence only upon reinstatement of the permit in writing by the Department. A permit that has been revoked will not be reinstated. Before any work, use or operation will be allowed for a revoked permit, a new permit must be applied for and issued by the Department.
  - (E) **Recordation of Notice of Violation:** If a procedure has been otherwise adopted by the County for recordation of Notices of Violation, a Notice of Violation of these regulations may be recorded with the County Recorder's

### A-040: ENFORCEMENT AND PENALTIES FOR NON-COMPLIANCE

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- (2) **Right of Entry.** The Health Officer, Code Enforcement Officer and the Department are authorized to enforce the requirements of these regulations. Any of them may enter upon any premises to make inspections and perform tests for the purpose of enforcement of code provisions or these regulations or the abatement of a public health hazard or public nuisance, so long as they do so in compliance with State and Federal law. If consent is not given to a search where necessary, an administrative inspection warrant may be secured upon reasonable cause, allowing the inspection.
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  - (C) **Stop Work Order:** The Department may issue a Stop Work Order for work that is in violation of these regulations, the sewage disposal system permit, or is occurring in an unsafe and dangerous manner. The Stop Work Order will be issued to the person responsible for the work, and will specify the reason for the Stop Work Order. It may also direct corrective measures necessary to abate the violation. Work may only recommence upon written release by the Department. Failure to comply with the requirements of a Stop Work Order is a violation of these regulations, and is subject to any enforcement action permitted by law.
  - (D) **Permit Suspension or Revocation:**
    - (1) When the construction or operation of a system is in violation of these regulations or conditions of the permit, or where a person has misrepresented any material fact in the application for a permit, **or where a person fails to maintain the annual maintenance and monitoring permit requirements**, the Department may suspend or revoke the permit.
    - (2) The Department will provide the owner a written notice of intent to suspend or revoke a permit. The owner will be given the opportunity to request a hearing before the Department. A written request for a hearing must be received by the Department within ten (10) working days of the Department's written notice. A failure to request the hearing within the ten (10) working days is deemed a waiver of the right to a hearing.
    - (3) The Department will schedule a hearing within ten (10) working days from the receipt of a written request for a hearing. The Director of the Department shall conduct the hearing. The decision resulting from the hearing may be appealed in accordance with the appeal procedures of Section A-032.
    - (4) No work, use or operation may continue on a system where the permit has been suspended or revoked. Work or operation on a system may recommence only upon reinstatement of the permit in writing by the Department. A permit that has been revoked will not be reinstated. Before any work, use or operation will be allowed for a revoked permit, a new permit must be applied for and issued by the Department.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted\***

office following those procedures.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

(E) **Recordation of Notice of Violation:** If a procedure has been otherwise adopted by the County for recordation of Notices of Violation, a Notice of Violation of these regulations may be recorded with the County Recorder's office following those procedures.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

Edits/deletions highlighted

### **A-042: LIABILITY**

Department staff charged with the enforcement of these regulations, when acting within the scope of their public employment, are protected from liability by the immunities available to public employees under the California Tort Claims Act (see California Government Code sections 820, et seq.), including, but not limited to, not being liable for adoption or failure to adopt or enforce an enactment; issuance, denial, suspension, or revocation of a permit, failure to inspect, or negligent inspection of, property; and institution or prosecution of judicial or administrative proceedings.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

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## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

**A-044: TABLE 1-SETBACKS**

**TABLE 1**

If a setback is not specified in this Table, the most recently Board of Supervisors-adopted Uniform Plumbing Code setback will be applied.

**FEATURES REQUIRING SETBACK: MIN. HORIZONTAL SEPARATION DISTANCE IN FEET**

DISTANCE REQUIRED FROM: ↓	FROM DISPOSAL FIELD INITIAL AND REPLACEMENT AREA	FROM SEPTIC TANK AND SAND FILTER	FROM VAULT PRIVY
<b>Wells</b>			
Public well	100'	100'	200'
Private well	100'	100' <sup>1</sup>	150'
Other wells, excluding monitoring wells	100'	100' <sup>1</sup>	150'
<b>Surface waters<sup>2</sup></b>			
Reservoirs, lakes, springs, ponds, or perennial streams	100' <sup>3</sup>	100' <sup>1,3</sup>	150'
Intermittent streams	50' <sup>3</sup>	25'	50'
<b>Artificial drains--Vertical/Curtain drains</b>			
Upgradient of system	15' <sup>4</sup>	15' <sup>4</sup>	25'
Downgradient of system	50'	25'	50'
<b>Water canals<sup>2</sup></b>			
Flat area	100' <sup>3</sup>	100' <sup>1,3</sup>	150'
Sloping area			
-Upgradient	clear ROW <sup>5</sup>	clear ROW <sup>5</sup>	25'
-Downgradient	100'	100' <sup>1</sup>	150'

DISTANCE REQUIRED FROM: ↓	FROM DISPOSAL FIELD INITIAL AND REPLACEMENT AREA	FROM SEPTIC TANK AND SAND FILTER	FROM VAULT PRIVY
<b>Cuts manmade in excess of 2.5 feet (top of downslope cut) or escarpments</b>	4 X height <sup>6</sup> of the bank, to a maximum of 50'	10'	4 X height <sup>6</sup> of the bank, to a maximum of 50'
<b>Property lines</b>			
Adjacent property with public water	10'	5'	200'
Adjacent property with private water	10' <sup>7</sup> or 50'	10'	200'
<b>Foundation lines of any structure including garages, out-buildings</b>	8'	5' <sup>8</sup>	5'
<b>Swimming pools</b>			
In-ground	20'	20'	20'
Above-ground	5'	5'	5'
<b>All Water lines</b>	10' <sup>9</sup>	5' <sup>10</sup>	10'
<b>Easements<sup>11</sup></b>	Clear	Clear	Clear

FOOTNOTES:

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

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DISTANCE REQUIRED FROM: ↓	FROM DISPOSAL FIELD INITIAL AND REPLACEMENT AREA	FROM SEPTIC TANK AND SAND FILTER	FROM VAULT PRIVY
<b>Wells</b>			
Public well	200' <sup>12</sup>	200' <sup>12</sup>	200' <sup>12</sup>
Private well	100'	100' <sup>11</sup>	150'
Other wells, excluding monitoring wells	100'	100' <sup>11</sup>	150'
<b>Surface waters<sup>2</sup></b>			
Reservoirs, lakes, springs, ponds, or perennial streams	100' <sup>3</sup> /600' <sup>14</sup>	100' <sup>1,3</sup> /600' <sup>14</sup>	150'
Intermittent streams	50' <sup>3</sup>	25'	50'
<b>Public Surface Water Intake</b>	1,200' to intake - 400' from high water mark <sup>13</sup>	1,200' to intake - 400' from high water mark <sup>13</sup>	1,200' to intake - 400' from high water mark <sup>13</sup>
<b>Artificial drains--Vertical/Curtain drains</b>			
Upgradient of system	15' <sup>4</sup>	15' <sup>4</sup>	25'
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<b>Water canals<sup>2</sup></b>			
Flat area	100' <sup>3</sup>	100' <sup>1,3</sup>	150'
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-Upgradient	clear ROW <sup>5</sup>	clear ROW <sup>5</sup>	25'
-Downgradient	100'	100' <sup>1</sup>	150'

DISTANCE REQUIRED FROM: ↓	FROM DISPOSAL FIELD INITIAL AND REPLACEMENT AREA	FROM SEPTIC TANK AND SAND FILTER	FROM VAULT PRIVY
<b>-Downgradient</b>	100'	100' <sup>1</sup>	
<b>Cuts manmade in excess of 2.5 feet (top of downslope cut) or escarpments</b>	4 X height <sup>6</sup> of the bank, to a maximum of 50'	10'	4 X height <sup>6</sup> of the bank, to a maximum of 50'
<b>Property lines</b>			
Adjacent property with public water	10'	5'	200'
Adjacent property with private water	10' <sup>7</sup> or 50'	10'	200'
<b>Foundation lines of any structure including garages, out-buildings</b>	8'	5' <sup>8</sup>	5'
<b>Swimming pools</b>			
In-ground	20'	20'	20'
Above-ground	5'	5'	5'
<b>All Water lines</b>	10' <sup>9</sup>	5' <sup>10</sup>	10'
<b>Public Water System Intake</b>			
<b>Easements<sup>11</sup></b>	Clear	Clear	Clear
<b>Roadside Drainage</b>			

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

edits/deletions highlighted

1. The 100-foot setback from a septic tank to a well, surface water or canal, may be reduced to 50-feet if the tank is bedded on a 6" layer of sand or ¾" minus aggregate, and passes a water-tight test.
2. Setbacks shall be measured from the edge of the 10-year historic high water level (western county) or the 100-year historic high water level (eastern county). For western county, where a flood plain is indicated on a FEMA map, the 100-year setback shall be utilized unless a 10-year flood plain has been delineated by a drainage study or other approved methods. In no event shall a system be placed within a 100-year flood plain or within an area of special flood hazard as defined in the Flood Plain Management Regulations contained in Chapter XII of the Nevada County Land Use and Development Code.
3. Where the deepest portion of the surface water liquid level is higher in elevation than the highest liquid level in the leachfield, this setback may be reduced to twenty-five (25) feet.
4. Where the deepest portion of the curtain drain liquid level is higher in elevation than the highest liquid level in the leachfield, this setback may be reduced to ten (10) feet. For septic tanks, this setback may be reduced to ten (10) feet if the tank is bedded on a 6" layer of sand or ¾" minus aggregate, and passes a watertight test.
5. "ROW" = Right of Way
6. The height (in feet) of the cut or escarpment as measured from the toe of the cut or escarpment vertically to the projection of the natural ground slope.
7. The ten (10) feet separation applies where adjacent parcels have been developed with a dwelling and approved water supply as defined in Chapter X, Land Use and Development Code. The 50-foot separation shall be used when adjacent parcels have not been so developed. For subdivisions, disposal fields may be ten (10) feet from interior property lines in private well areas if a well has been drilled on the affected parcel and meets Department standards for an approved domestic water supply. The greater setback shown above shall apply to parcels adjacent to the subdivision.
8. The Department encourages the placement of septic tanks and other treatment units as close as feasible to the minimum separation from the building foundation in order to minimize possible clogging of the building sewer.
9. A water line constructed of materials approved for use within a building and sleeved in schedule 40 pipe (or approved equivalent) may cross a leach field so long as the water pipe is installed above the highest liquid level of the leachfield, and the sleeve extends a minimum of ten (10) feet on both sides of the leachfield and is constructed so as to be watertight.
10. A water line constructed of materials approved for use within a building may be installed crossing a septic tank so long as a minimum of one (1) foot of vertical separation is maintained.
11. A system may be installed underneath overhead power lines or cross other utilities (e.g., canals) providing all of the following conditions are met:
  - (a) Written authorization is received from the utility company operating and maintaining the utility affected or for which the easement or restriction was granted;
  - (b) The Department determines that the encroachment is necessary and there is no other viable area in which to install the system; and
  - (c) All construction modifications required by the Department and the affected utility company(ies) are instituted to carry out the purposes of these regulations. Unless otherwise approved, canal crossings shall be made in conformance with current construction requirements of the Nevada Irrigation District.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### FOOTNOTES:

1. The 100-foot setback from a septic tank to a well, surface water or canal, may be reduced to 50-feet if the tank is bedded on a 6" layer of sand or ¾" minus aggregate, and passes a water-tight test.
2. Setbacks shall be measured from the edge of the 10-year historic high water level (western county) or the 100-year historic high water level (eastern county). For western county, where a flood plain is indicated on a FEMA map, the 100-year setback shall be utilized unless a 10-year flood plain has been delineated by a drainage study or other approved methods. In no event shall a system be placed within a 100-year flood plain or within an area of special flood hazard as defined in the Flood Plain Management Regulations contained in Chapter XII of the Nevada County Land Use and Development Code.
3. Where the deepest portion of the surface water liquid level is higher in elevation than the highest liquid level in the leachfield, this setback may be reduced to twenty-five (25) feet.
4. Where the deepest portion of the curtain drain liquid level is higher in elevation than the highest liquid level in the leachfield, this setback may be reduced to ten (10) feet. For septic tanks, this setback may be reduced to ten (10) feet if the tank is bedded on a 6" layer of sand or ¾" minus aggregate, and passes a watertight test.
5. "ROW" = Right of Way
6. The height (in feet) of the cut or escarpment as measured from the toe of the cut or escarpment vertically to the projection of the natural ground slope.
7. The ten (10) feet separation applies where adjacent parcels have been developed with a dwelling and approved water supply as defined in Chapter X, Land Use and Development Code. The 50-foot separation shall be used when adjacent parcels have not been so developed. For subdivisions, disposal fields may be ten (10) feet from interior property lines in private well areas if a well has been drilled on the affected parcel and meets Department standards for an approved domestic water supply. The greater setback shown above shall apply to parcels adjacent to the subdivision.
8. The Department encourages the placement of septic tanks and other treatment units as close as feasible to the minimum separation from the building foundation in order to minimize possible clogging of the building sewer.
9. A water line constructed of materials approved for use within a building and sleeved in schedule 40 pipe (or approved equivalent) may cross a leach field so long as the water pipe is installed above the highest liquid level of the leachfield, and the sleeve extends a minimum of ten (10) feet on both sides of the leachfield and is constructed so as to be watertight.
10. A water line constructed of materials approved for use within a building may be installed crossing a septic tank so long as a minimum of one (1) foot of vertical separation is maintained.
11. A system may be installed underneath overhead power lines or cross other utilities (e.g., canals) providing all of the following conditions are met:
  - (a) Written authorization is received from the utility company operating and maintaining the utility affected or for which the easement or restriction was granted;
  - (b) The Department determines that the encroachment is necessary and there is no other viable area in which to install the system; and
  - (c) All construction modifications required by the Department and the affected utility company(ies) are instituted to carry out the purposes of these regulations. Unless otherwise approved, canal crossings shall be made in conformance with current construction requirements of the Nevada Irrigation District.
12. Dispersal Components deeper than 20 feet deep that are within 600 feet of a public well requires a 2-year travel time for microbiological contaminants shall be evaluated. Set back shall not be less than 200 feet.
13. If located 1,200 to 2,500 feet from intake the dispersal field can be reduced to 200 feet from the high water mark.
14. New and replacement OWTS along areas identified as Impaired per Attachment 2 (Wolf Creek) of the OWTS Policy will require supplemental treatment and disinfection as defined in A-030-1-(E).

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### T-052: STANDARD SYSTEM REQUIREMENTS

- (1) **General statement.** A standard system is a system consisting of a septic tank, distribution unit and gravity-flow disposal field constructed with a minimum of six (6) inches of filter material below a minimum three (3) inch diameter distribution pipe, and maintaining not less than four (4) feet of effective soil depth below the bottom of the trench.
- (2) **Criteria for approval.** In order to be approved for a Standard System, each site must meet the applicable requirements of the Administrative regulations, and all of the following:
- (A) Effective soil depth shall extend a minimum of six (6) feet in the disposal area and replacement area and shall extend a minimum of four (4) feet below proposed disposal trench bottoms;
  - (B) Groundwater is not present for at least four feet below the proposed disposal trench bottoms;
  - (C) Soils in the proposed disposal area and replacement area are either sandy loam, sandy clay loam, sandy clay, loam, non-expansive clay, silt loam, or clay loam, or, the design percolation rate is six (6) to sixty (60) minutes per inch;
  - (D) The slope shall not exceed thirty (30) percent within the disposal area and replacement area;
  - (E) A minimum one-hundred (100) percent replacement area shall be available;
  - (F) The site has not been filled or the soil has not been modified in a way that would adversely affect functioning of the system;
  - (G) The site shall not be on an unstable landform, where operation of the system may be adversely affected;
  - (H) The site of the disposal area and replacement area shall not be covered by asphalt or concrete, or subject to the activity associated with vehicular traffic, corrals, pens, arenas or other concentrations of livestock, or other activity which would adversely affect the soil or integrity of the system;
  - (I) The site of the disposal area and replacement area shall not be subjected to excessive saturation due to, but not limited to, artificial drainage, driveways, road and roof drains;
  - (J) Setback criteria in Table 1 (contained in Section T-112) can be met;
  - (K) **An artificial drain may be required to intercept and/or drain water from a disposal area; however, it may be required to demonstrate that the site can be de-watered prior to issuing a permit. Where required, artificial drains are an integral part of the system, but do not need to meet setback requirements to property lines, streams, lakes, ponds or other surface water bodies. However, artificial drains shall meet the setback requirements to systems as specified in Table 1 (contained in Section T-112). Artificial drains shall be designed by a consultant and meet the other requirements of Section T-054, as well as minimum materials and construction specifications indicated in Section T-110. Diagram 13 illustrates a typical artificial (curtain) drain design. **\*\*SECTION K MOVED TO T-054 IN NEW ORDINANCE\*\*****
- (3) **Site evaluation report requirements.** The consultant must submit a site evaluation report including the following information to the Department in order for the Department to prepare a site approval report as detailed in Section A-014 (8). **This information must conform to the most current "Handbook for Describing Soil Mantles in Nevada County" available from the Department.** Soil properties must be described **using the classes defined in this handbook, or** using standard USDA-Natural Resources Conservation Service terminology as defined in "Soil Survey Manual, Agricultural Handbook No. 18, 1993". The site evaluation report must include the following information:
- (A) A scaled site map showing the location and identification of all soil test pits and percolation test holes. The map must include a North arrow, the percent and direction of slope in the area tested, and site features which affect the location of a system.
  - (B) The soil description for each soil test pit. Every soil test pit must be described, even if the test shows unsuitable soil or is located in an area that will not be used. Each soil test pit description must include the following information:
    - (1) Slope-percent and direction.
    - (2) Parent rock type-volcanic, granitic, metasedimentary, alluvium, other.
    - (3) Effective soil depth.
    - (4) Depth to groundwater (if observed).
    - (5) Descriptions of each soil horizon (layer) described, which shall include the following characterization, using the terminology indicated (where provided):
      - a. Depth of horizon.
      - b. Soil texture-sand, loamy sand, sandy loam, sandy clay, sandy clay loam, loam, clay, clay loam, silty clay, silty clay loam, silt loam, silt.

### T-052: STANDARD SYSTEM REQUIREMENTS

- (1) **General statement.** A standard system is a system consisting of a septic tank, distribution unit and gravity-flow disposal field constructed with a minimum of six (6) inches of filter material below a minimum three (3) inch diameter distribution pipe, and maintaining not less than four (4) feet of effective soil depth below the bottom of the trench.
- (2) **Criteria for approval.** In order to be approved for a Standard System, each site must meet the applicable requirements of the Administrative regulations, and all of the following:
- (A) Effective soil depth shall extend a minimum of six (6) feet in the disposal area and replacement area and shall extend a minimum of four (4) feet below proposed disposal trench bottoms;
  - (B) Groundwater is not present for at least four (4) feet below the proposed disposal trench bottoms;
  - (C) Soils in the proposed disposal area and replacement area are either sandy loam, sandy clay loam, sandy clay, loam, non-expansive clay, silt loam, or clay loam, or, the design percolation rate is six (6) to sixty (60) minutes per inch;
  - (D) The slope shall not exceed thirty (30) percent within the disposal area and replacement area;
  - (E) A minimum one-hundred (100) percent replacement area shall be available;
  - (F) The site has not been filled or the soil has not been modified in a way that would adversely affect functioning of the system;
  - (G) The site shall not be on an unstable landform, where operation of the system may be adversely affected;
  - (H) The site of the disposal area and replacement area shall not be covered by asphalt or concrete, or subject to the activity associated with vehicular traffic, corrals, pens, arenas or other concentrations of livestock, or other activity which would adversely affect the soil or integrity of the system;
  - (I) The site of the disposal area and replacement area shall not be subjected to excessive saturation due to, but not limited to, artificial drainage, driveways, road and roof drains;
  - (J) Setback criteria in Table 1 (contained in Section T-112) can be met.
- (3) **Site evaluation report requirements.** The consultant must submit a site evaluation report including the following information to the Department in order for the Department to prepare a site approval report as detailed in Section A-014 (8). Soil properties must be described using standard USDA-Natural Resources Conservation Service terminology as defined in "Soil Survey Manual, Agricultural Handbook No. 18, 1993". The site evaluation report must include the following information:
- (A) A scaled site map showing the location and identification of all soil test pits and percolation test holes. The map must include a North arrow, the percent and direction of slope in the area tested, and site features which affect the location of a system.
  - (B) The soil description for each soil test pit. Every soil test pit must be described, even if the test shows unsuitable soil or is located in an area that will not be used. Each soil test pit description must include the following information:
    - (1) Slope-percent and direction.
    - (2) Parent rock type-volcanic, granitic, metasedimentary, alluvium, other.
    - (3) Effective soil depth.
    - (4) Depth to groundwater (if observed).
    - (5) Descriptions of each soil horizon (layer) described, which shall include the following characterization, using the terminology indicated (where provided):
      - a. Depth of horizon.
      - b. Soil texture-sand, loamy sand, sandy loam, sandy clay, sandy clay loam, loam, clay, clay loam, silty clay, silty clay loam, silt loam, silt.
      - c. Soil rock fragment content in percent by volume.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted\***

- c. Soil rock fragment content in percent by volume.
  - d. Soil color (moist) using the Munsell Soil Color Chart.
  - e. Redoxymorphic features (if present)—redox concentrations, redox depletions, reduced matrices.
  - f. Soil structure—granular, platy, or blocky; fine, medium, or coarse; structureless—single grain, or massive.
  - g. Soil pores—few, common, or many; fine, medium, or coarse.
  - h. Soil consistence—loose, very friable, friable, firm, very firm, extremely firm, or solid.
  - i. Soil plasticity—non-plastic, slightly-plastic, plastic, or very-plastic.
  - j. Soil stickiness—non-sticky, slightly-sticky, sticky, or very-sticky.
  - k. Soil roots—none, few, common, or many; very fine, fine, medium, or coarse.
  - l. Soil horizon boundary—smooth, wavy, irregular, or broken; abrupt, clear, gradual, or distinct.
  - m. Soil moisture—dry, damp, moist, saturated, or seepage.
- (C) The percolation data sheet(s), correction factor calculation, and average percolation rate. Or, the soil type(s) utilized for determining the sizing if percolation tests were not used for sizing.
- (D) The proposed type of system (e.g., Standard, Capping Fill, Pressurized Distribution, Pump, Deep Trench, Steep Slope, Intermittent or Recirculating Sand Filter, Mound, ~~Package or Plant, or Experimental System~~) and location with respect to specific soil test pit locations.
- (E) The business name, address and telephone number of the consultant.
- (F) The date that the testing was conducted.

**(4) Criteria for system sizing.**

- (A) Single-family dwellings. Systems serving single-family dwellings shall be sized at minimum one hundred fifty (150) gallons per day (gpd) projected daily sewage flow. Projected daily sewage flow shall be calculated at one hundred and fifty (150) gallons per day per bedroom.
- (B) Disposal trench sizing for single-family dwellings. The effective absorption area required, shall be based upon the projected daily sewage flow and one of the following:
- (1.) Rate of sewage application based on soil group in chart below.

Soil Group	Rate of Sewage Application
A*	1.2 gpd/ft <sup>2</sup>
B	0.8 gpd/ft <sup>2</sup>
C	0.6 gpd/ft <sup>2</sup>
D	0.45 gpd/ft <sup>2</sup>
E*	0.2 gpd/ft <sup>2</sup>

- A\* sand, loamy sand
- B sandy loam
- C loam, sandy clay loam
- D sandy clay, silt loam, clay loam, non-expansive clay
- E\* clay, silty clay, silty clay loam, silt

\*Soil Groups A and E are not suitable for a standard system.

OR

- (2.) Effective absorption area required, when given the design percolation rate, shall be calculated using the following formulas:

For gravity-fed trenches:  $3.5/\sqrt{t}$

For pressure-distribution trenches\*:  $5/\sqrt{t}$

where "t" is the percolation rate in minutes per inch. Percolation rates of less than six (6) minutes per inch (mpi) and greater than sixty (60) mpi, are unsuitable for a standard system.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

- d. Soil color (moist) using the Munsell Soil Color Chart.
  - e. Redoxymorphic features (if present)—redox concentrations, redox depletions, reduced matrices.
  - f. Soil structure—granular, platy, or blocky; fine, medium, or coarse; structureless—single grain, or massive.
  - g. Soil pores—few, common, or many; fine, medium, or coarse.
  - h. Soil consistence—loose, very friable, friable, firm, very firm, extremely firm, or solid.
  - i. Soil plasticity—non-plastic, slightly-plastic, plastic, or very-plastic.
  - j. Soil stickiness—non-sticky, slightly-sticky, sticky, or very-sticky.
  - k. Soil roots—none, few, common, or many; very fine, fine, medium, or coarse.
  - l. Soil horizon boundary—smooth, wavy, irregular, or broken; abrupt, clear, gradual, or distinct.
  - m. Soil moisture—dry, damp, moist, saturated, or seepage.
- (C) The percolation data sheet(s), correction factor calculation, and average percolation rate.
- (D) The proposed type of system (e.g., Standard, Capping Fill, Pressurized Distribution, Pump, Deep Trench, Steep Slope, Intermittent or Recirculating Sand Filter, or Mound) and location with respect to specific soil test pit locations.
- (E) The business name, address and telephone number of the consultant.
- (F) The date that the testing was conducted.

**(4) Criteria for system sizing.**

- (A) Single-family dwellings. Systems serving single-family dwellings shall be sized at minimum one hundred fifty (150) gallons per day (gpd) projected daily sewage flow. Projected daily sewage flow shall be calculated at one hundred and fifty (150) gallons per day per bedroom.
- (B) Disposal trench sizing for single-family dwellings. The effective absorption area required, shall be based upon the projected daily sewage flow and one of the following:
- (1) Rate of sewage application based on soil group in chart below.

Soil Group	Rate of Sewage Application
A*	1.2 gpd/ft <sup>2</sup>
B	0.8 gpd/ft <sup>2</sup>
C	0.6 gpd/ft <sup>2</sup>
D	0.45 gpd/ft <sup>2</sup>
E*	0.2 gpd/ft <sup>2</sup>

- A\* sand, loamy sand
- B sandy loam
- C loam, sandy clay loam
- D sandy clay, silt loam, clay loam, non-expansive clay
- E\* clay, silty clay, silty clay loam, silt

\*Soil Groups A and E are not suitable for a standard system.

OR

- (2) Effective absorption area required, when given the design percolation rate, shall be calculated using the following formulas:

For gravity-fed trenches:  $3.5/\sqrt{t}$

[For pressure-distribution trenches\*:  $5/\sqrt{t}$

\*Where "t" is the percolation rate in minutes per inch. Percolation rates of less than six (6) minutes per inch (mpi) and greater than sixty (60) mpi, are unsuitable for a standard system. When a pressure-distribution trench is utilized, the sewage disposal system is a special design system, in accordance with Section T-054, et seq.



## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**Edits/deletions highlighted**

**\*Note:** When a pressure-distribution trench is utilized, the sewage disposal system is a special design system, in accordance with Section T-054, *et seq.*

- (C) When sizing by soil group and more than one soil group is encountered within a soil profile, disposal trench sizing shall be based on the most restrictive soil group encountered within thirty-six (36) inches from the bottom of the disposal trench.
- (D) When sizing by percolation rate and more than one soil group is encountered within a soil profile, disposal trench sizing shall consider the soil characteristics within thirty-six (36) inches from the bottom of the disposal trench, and may require percolation tests in deeper soil layers.
- (E) For calculating the required lineal feet of the disposal field, only the trench bottom area shall be considered.

**(5) Percolation test requirements and procedures (see Diagram 3).**

- (A) General requirements.
  - (1.) All percolation tests shall be conducted in accordance with the procedures outlined in this section, or as otherwise approved by the Department.
  - (2.) Percolation testing shall be required when it is determined by the Department that such testing, when coupled with soil test pit evaluations, is necessary to aid in system sizing and design.
  - (3.) Percolation tests are required as part of the site evaluation process for the creation of new lots and parcels.
- (B) Test hole preparation requirements.
  - (1.) Unless otherwise indicated by the Department, there shall be a minimum of three (3) percolation test holes when the disposal area and replacement area are close (close, as determined by the Department); six (6) may be required when the areas are separate (separate, as determined by the Department). More test holes may be required by the Department to completely identify a suitable area.
  - (2.) Unless otherwise approved by the Department, the test hole bottom depth shall be equal to the proposed disposal trench bottom depth. A posthole digger or manual auger shall dig the test section (bottom 8 inches) of the test hole.
  - (3.) Unless otherwise approved by the Department, the diameter of the test hole shall be from six (6) to eight (8) inches.
- (C) The test hole sidewall in the test section should be roughened to remove any smearing or compaction caused by the hole excavation process. All loose soil shall be removed and two (2) inches of pea gravel or other material approved by the Department, shall be placed in the bottom of the hole. In order to prevent siltation of the bottom of the hole and sidewall cave-in, a sidewall gravel pack is to be used in accordance with the chart in Section T-052 (5) (F). Two methods for retaining the sidewall gravel pack are:
  - (1.) One eighth (1/8) inch mesh galvanized hardware cloth rolled into a cylinder at least twelve (12) inches long;
  - (2.) Perforated plastic pipe in twelve (12) inches (or longer) sections.
- (D) Presoak requirement. The hole shall be filled with clean water to a minimum depth of twelve (12) inches above the base of the hole. The presoak shall be maintained for a minimum of twelve (12) hours.

**EXCEPTION:** During wet-weather testing conditions, the presoak time may be reduced at the discretion of the Department. During dry-weather conditions, the presoak time shall be a minimum of twenty-four (24) hours for soil group "E" [see Section T-052 (4) (B) (1.)].

- (E) Test measurement requirements.
  - (1.) Percolation tests shall be measured to the nearest 1/16<sup>th</sup> inch from a fixed point.
  - (2.) The percolation test shall begin within four (4) hours following completion of the presoak. Adjust the water level to six (6) inches over the pea gravel bottom and begin the test. This may require adding or removing water to adjust the level.
  - (3.) Readings shall be taken at thirty (30) minute intervals. Refill as necessary to maintain five (5) to six (6) inches of water over the pea gravel bottom at each interval. Readings shall be taken until two consecutive readings do not vary by more than ten percent per reading, with a minimum of three (3) readings. The last thirty (30) minute interval is used to compute the percolation rate. If four (4) inches or more of water seeps from the hole during the thirty (30) minute interval, readings may be taken at ten (10) minute intervals. Readings shall be taken until two (2) consecutive readings do not vary by more than ten percent per reading with a minimum of three (3) readings. The last ten (10) minute interval is used to compute the percolation rate.
- (F) Test rate determination. The following chart provides a correction factor to determine the corrected percolation rate:

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

- (C) When sizing by soil group and more than one soil group is encountered within a soil profile, disposal trench sizing shall be based on the most restrictive soil group encountered within thirty-six (36) inches from the bottom of the disposal trench.
- (D) When sizing by percolation rate and more than one soil group is encountered within a soil profile, disposal trench sizing shall consider the soil characteristics within thirty-six (36) inches from the bottom of the disposal trench, and may require percolation tests in deeper soil layers.
- (E) For calculating the required lineal feet of the disposal field, only the trench bottom area shall be considered.

**(5) Percolation test requirements and procedures (see Diagram 3).**

- (A) General requirements.
  - (1) All percolation tests shall be conducted in accordance with the procedures outlined in this section, or as otherwise approved by the Department.
  - (2) Percolation testing shall be required when it is determined by the Department that such testing, when coupled with soil test pit evaluations, is necessary to aid in system sizing and design.
  - (3) Percolation tests are required as part of the site evaluation process for the creation of new lots and parcels.
- (B) Test hole preparation requirements.
  - (1) Unless otherwise indicated by the Department, there shall be a minimum of three (3) percolation test holes when the disposal area and replacement area are close (close, as determined by the Department); six (6) may be required when the areas are separate (separate, as determined by the Department). More test holes may be required by the Department to completely identify a suitable area.
  - (2) Unless otherwise approved by the Department, the test hole bottom depth shall be equal to the proposed disposal trench bottom depth. A posthole digger or manual auger shall dig the test section (bottom 8 inches) of the test hole.
  - (3) Unless otherwise approved by the Department, the diameter of the test hole shall be from six (6) to eight (8) inches.
- (C) The test hole sidewall in the test section should be roughened to remove any smearing or compaction caused by the hole excavation process. All loose soil shall be removed and two (2) inches of pea gravel or other material approved by the Department, shall be placed in the bottom of the hole. In order to prevent siltation of the bottom of the hole and sidewall cave-in, a sidewall gravel pack is to be used in accordance with the chart in Section T-052 (5) (F). Two methods for retaining the sidewall gravel pack are:
  - (1) One eighth (1/8) inch mesh galvanized hardware cloth rolled into a cylinder at least twelve (12) inches long;
  - (2) Perforated plastic pipe in twelve (12) inches (or longer) sections.
- (D) Presoak requirement. The hole shall be filled with clean water to a minimum depth of twelve (12) inches above the base of the hole. The presoak shall be maintained for a minimum of twelve (12) hours.

**EXCEPTION:** During wet-weather testing conditions, the presoak time may be reduced at the discretion of the Department. During dry-weather conditions, the presoak time shall be a minimum of twenty-four (24) hours for soil group "E" [see Section T-052 (4) (B) (1.)].

- (E) Test measurement requirements.
  - (1) Percolation tests shall be measured to the nearest 1/16<sup>th</sup> inch from a fixed point.
  - (2) The percolation test shall begin within four (4) hours following completion of the presoak. Adjust the water level to six (6) inches over the pea gravel bottom and begin the test. This may require adding or removing water to adjust the level.
  - (3) Readings shall be taken at thirty (30) minute intervals. Refill as necessary to maintain five (5) to six (6) inches of water over the pea gravel bottom at each interval. Readings shall be taken until two consecutive readings do not vary by more than ten percent per reading, with a minimum of three (3) readings. The last thirty (30) minute interval is used to compute the percolation rate. If four (4) inches or more of water seeps from the hole during the thirty (30) minute interval, readings may be taken at ten (10) minute intervals. Readings shall be taken until two (2) consecutive readings do not vary by more than ten percent per reading with a minimum of three (3) readings. The last ten (10) minute interval is used to compute the percolation rate.
- (F) Test rate determination. The following chart provides a correction factor to determine the corrected percolation

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

Hole diameter	Gravel thickness	Correction factor
6"	1"	1.59
6"	1/2"	1.27
8"	1"	1.14
7"	1/2"	1.04

Calculation:

Standard percolation value (minutes per inch) =

Test percolation value (minutes per inch) X (correction factor)

**Example:** A six (6) inch hole is used with a one (1) inch gravel pack. The test percolation value is 25 mpi.

25 mpi (1.59) = 40 mpi

40 mpi is the standard percolation value for that test hole and will be used in combination with other test hole results when designing the system. The mean percolation rate calculated from all test hole results accepted by the Department, shall be the final percolation rate (design percolation rate) assigned for sizing the system.

- (6) **Building sewer design, materials, and construction requirements** (see Diagrams 4, 7,8 & 12). The building sewer shall be constructed with materials in conformance to building sewer standards identified in the **Uniform** Plumbing Code. The building sewer pipe shall have a minimum diameter of three (3) inches.
- (7) **Septic tank design, materials, and construction requirements** (see Diagram 4).
- (A) Materials and construction. Materials and construction shall be in accordance with Section **T-092**.
- (B) Liquid capacity. The minimum liquid capacity of any septic tank installed shall be one thousand (1000) gallons.
- (C) Septic tanks to serve single family dwellings shall be sized on the number of bedrooms in the dwelling, as follows:  
 1 to 3 bedrooms -----1000 gallons  
 4 to 6 bedrooms -----1500 gallons  
 For each additional bedroom over 6, add two hundred (200) gallons.
- (8) **Effluent sewer design, materials and requirements** (see Diagrams 4, 5, 7, & 8). The effluent sewer (pipe) shall extend at least five (5) feet beyond the septic tank before connecting to the distribution unit. It shall be installed with a minimum fall of four (4) inches per one hundred (100) feet, but in no instance shall there be less than two (2) inches of fall from one end of the pipe to the other. For installations where more than one (1) disposal trench is utilized with serial distribution, there shall be a minimum of four (4) inches elevation drop from the invert of the septic tank outlet to the invert of the disposal field distribution unit. When connecting a three (3) inch pipe to a four (4) inch pipe, they shall be joined by a fitting that provides a water-tight seal. The effluent sewer pipe materials and construction shall be in conformance with Section **T-102**.
- (9) **Distribution and diversion valve design, materials, and construction requirements** (see Diagrams 2, 5, 7, & 8). **Distribution** and diversion valve design, materials, and construction shall meet the minimum standards set forth in Sections T-094 and T-096, respectively.
- (10) **Header pipe design, materials, and construction requirements.**
- (A) Unless otherwise approved, header pipe materials and construction shall at minimum, meet the standards set forth in Section **T-102**.
- (B) The pipe shall be watertight, have a minimum diameter of three (3) inches, and be bedded on undisturbed earth.
- (11) **Disposal trench design, materials, and construction requirements.** (See Diagrams 2, 6, 7, 8, & 9).
- (A) Disposal trenches shall be constructed in accordance with the standards contained in the following table, unless otherwise specified.
- |      |              |          |           |
|------|--------------|----------|-----------|
| (1.) | Length       | maximum: | 100 feet  |
| (2.) | Bottom width | minimum: | 24 inches |
|      |              | maximum: | 36 inches |
| (3.) | Depth        | minimum: | 24 inches |

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

rate:

Hole diameter	Gravel thickness	Correction factor
6"	1"	1.59
6"	1/2"	1.27
8"	1"	1.14
7"	1/2"	1.04

Calculation:

Standard percolation value (minutes per inch) =

Test percolation value (minutes per inch) X (correction factor)

**Example:** A six (6) inch hole is used with a one (1) inch gravel pack. The test percolation value is 25 mpi.

25 mpi (1.59) = 40 mpi

40 mpi is the standard percolation value for that test hole and will be used in combination with other test hole results when designing the system. The mean percolation rate calculated from all test hole results accepted by the Department, shall be the final percolation rate (design percolation rate) assigned for sizing the system.

- (6) **Building sewer design, materials, and construction requirements** (see Diagrams 4, 7,8 & 12). The building sewer shall be constructed with materials in conformance to building sewer standards identified in the **California** Plumbing Code. The building sewer pipe shall have a minimum diameter of three (3) inches.
- (7) **Septic tank design, materials, and construction requirements** (see Diagram 4).
- (A) Materials and construction. Materials and construction shall be in accordance with Section **T-092**.
- (B) Liquid capacity. The minimum liquid capacity of any septic tank installed shall be one thousand (1000) gallons.
- (C) Septic tanks to serve single family dwellings shall be sized on the number of bedrooms in the dwelling, as follows:  
 1 to 3 bedrooms -----1000 gallons  
 4 to 6 bedrooms -----1500 gallons  
 For each additional bedroom over 6, add two hundred (200) gallons.
- (8) **Effluent sewer design, materials and requirements** (see Diagrams 4, 5, 7, & 8). The effluent sewer (pipe) shall extend at least five (5) feet beyond the septic tank before connecting to the distribution unit. It shall be installed with a minimum fall of four (4) inches per one hundred (100) feet, but in no instance shall there be less than two (2) inches of fall from one end of the pipe to the other. For installations where more than one (1) disposal trench is utilized with serial distribution, there shall be a minimum of four (4) inches elevation drop from the invert of the septic tank outlet to the invert of the disposal field distribution unit. When connecting a three (3) inch pipe to a four (4) inch pipe, they shall be joined by a fitting that provides a water-tight seal. The effluent sewer pipe materials and construction shall be in conformance with Section **T-102**.
- (9) **Drop Box and diversion valve design, materials, and construction requirements** (see Diagrams 2, 5, 7, & 8). **Drop Box** and diversion valve design, materials, and construction shall meet the minimum standards set forth in Sections T-094 and T-096, respectively.
- (10) **Header pipe design, materials, and construction requirements.**
- (A) Unless otherwise approved, header pipe materials and construction shall at minimum, meet the standards set forth in Section **T-102**.
- (B) The pipe shall be watertight, have a minimum diameter of three (3) inches, and be bedded on undisturbed earth.
- (11) **Disposal trench design, materials, and construction requirements.** (See Diagrams 2, 6, 7, 8, & 9).
- (A) Disposal trenches shall be constructed in accordance with the standards contained in the following table, unless otherwise specified.
- |     |              |          |           |
|-----|--------------|----------|-----------|
| (1) | Length       | maximum: | 100 feet  |
| (2) | Bottom width | minimum: | 24 inches |

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

- maximum: 30 inches
- (4.) Minimum distance of undisturbed soil between disposal trenches (sidewall-to-sidewall) shall be four (4) feet.
- (B) Disposal trench sizing methods and calculations shall be in accordance with Section T-052 (4).
- (C) Filter material shall extend the full width and length of the disposal trench to a depth of not less than twelve (12) inches. There shall be at least six (6) inches of filter material under the distribution pipe and at least two (2) inches over the distribution pipe.
- (D) A soil barrier shall be placed on top of the filter material to exclude fines from the filter material. The barrier shall consist of suitable filter fabric or a minimum of four (4) inches of straw.
- (E) There shall be a minimum of twelve (12) inches of backfill over the filter material.
- (F) Gravelless trench construction may be utilized instead of filter material in disposal trench. The design, manufacturing and materials used shall be durable and acceptable to the Department. Sizing for the gravelless disposal trench shall be in accordance with the latest Department policy for gravelless trench sizing. The policy shall be updated and maintained as new information becomes available for this technology, with input provided from the Sewage Disposal Technical Advisory Group.
- (12) **Distribution pipe design, materials, and construction requirements.**
- (A) Unless otherwise approved, distribution pipe materials and construction shall meet the minimum standards set forth in Section T-102.
- (B) The distribution pipes shall have a minimum diameter of three (3) inches.
- (C) All perforated pipe shall be installed with centerline markings up.
- (13) **Installation requirements.** (See Diagrams 4, 5, 6, 7, 8, & 9)
- (A) Septic tanks shall be installed on a level, stable base.
- (B) Septic tanks located in high groundwater areas shall be weighted or provided with an anti-buoyancy device to prevent flotation.
- (C) All septic tanks shall be installed with watertight risers extending to the ground surface or above. Construction and materials specifications for risers shall be in accordance with Section T-092 (3)(D).
- (D) Septic tanks shall be installed in a location that provides access for servicing and pumping.
- (E) ~~Where practicable, the sewage flow from all structures shall be consolidated into one septic tank. \*\*REMOVED\*\*~~
- (F) Systems shall not be installed when moist or wet conditions cause trench sidewall or bottom area degradation of soil structure and porosity (which frequently appears as smearing and compaction).
- (G) The bottom of the disposal trench shall be level to within a tolerance of two (2) inches in 100-feet.
- (H) Each disposal trench shall have distribution piping that is centered in the trench and laid level to within a tolerance of two (2) inches in 100-feet.
- (I) Disposal trenches shall be installed on contour.
- (J) Prior to backfilling the trench, the filter material shall be covered with filter fabric, straw or other material approved by the Department.
- (K) Backfill shall be carefully placed to prevent damage to the system.
- (L) Backfill shall be native soil free of large stones, frozen clumps of earth, masonry, stumps, waste construction materials, or other materials that could damage the system.
- (M) All ~~distribution boxes~~ shall be bedded level on undisturbed soil, aggregate with a minimum of 90% compaction, or concrete.
- (N) ~~Reinforcement bar (re-bar) shall be installed at the end of each disposal trench. Re-bar shall be a minimum #4 bar (1/2"), 18" long, placed into the soil to six (6) inches below finish grade. Materials other than re-bar may be approved by the Department. \*\*REMOVED\*\*~~
- (O) ~~The system shall be installed as specified in the approved permit. \*\*REMOVED\*\*~~
- (P) Adequate erosion control measures shall be utilized at all times in conformance with applicable county regulations pertaining to excavation and grading (Section L-V, Article 1, Nevada County Land Use & Development Code; the California Building Code; the California Administrative Code).
- (14) **Required Inspections.** All portions of the system are subject to inspection and verification prior to covering. The system shall be inspected for conformance with the permit requirements, including all applicable setbacks. The portions normally inspected include:
- (A) A minimum of five (5) feet of the building sewer entering the septic tank.
- (B) The septic tank, including access into any manhole covers.
- (C) The effluent sewer, distribution unit, and absorption facility.

Other portions of the system may be inspected as required by the permit or if deemed necessary by the Department to determine compliance with the Regulations. Additional inspection and Certificate of Satisfactory Completion requirements are specified in Section A-022.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

- maximum: 36 inches  
minimum: 24 inches  
maximum: 30 inches
- (3) Depth
- (4) Minimum distance of undisturbed soil between disposal trenches (sidewall-to-sidewall) shall be four (4) feet.
- (B) Disposal trench sizing methods and calculations shall be in accordance with Section T-052 (4).
- (C) Filter material shall extend the full width and length of the disposal trench to a depth of not less than twelve (12) inches. There shall be at least six (6) inches of filter material under the distribution pipe and at least two (2) inches over the distribution pipe.
- (D) A soil barrier shall be placed on top of the filter material to exclude fines from the filter material. The barrier shall consist of suitable filter fabric or a minimum of four (4) inches of straw.
- (E) There shall be a minimum of twelve (12) inches of backfill over the filter material.
- (F) Gravelless trench construction may be utilized instead of filter material in disposal trench. The design, manufacturing and materials used shall be durable and acceptable to the Department. **Sizing for the gravelless disposal trench shall be the same as for gravel systems.**
- (12) **Distribution pipe design, materials, and construction requirements.**
- (A) Unless otherwise approved, distribution pipe materials and construction shall meet the minimum standards set forth in Section T-102.
- (B) The distribution pipes shall have a minimum diameter of three (3) inches.
- (C) All perforated pipe shall be installed with centerline markings up.
- (13) **Installation requirements.** (See Diagrams 4, 5, 6, 7, 8, & 9)
- (A) Septic tanks shall be installed on a level, stable base.
- (B) Septic tanks located in high groundwater areas shall be weighted or provided with an anti-buoyancy device to prevent flotation.
- (C) All septic tanks shall be installed with watertight risers extending to the ground surface or above. Construction and materials specifications for risers shall be in accordance with Section T-092 (3)(D).
- (D) Septic tanks shall be installed in a location that provides access for servicing and pumping.
- (E) Systems shall not be installed when moist or wet conditions cause trench sidewall or bottom area degradation of soil structure and porosity (which frequently appears as smearing and compaction).
- (F) The bottom of the disposal trench shall be level to within a tolerance of two (2) inches in 100-feet.
- (G) Each disposal trench shall have distribution piping that is centered in the trench and laid level to within a tolerance of two (2) inches in 100-feet.
- (H) Disposal trenches shall be installed on contour.
- (I) Prior to backfilling the trench, the filter material shall be covered with filter fabric, straw or other material approved by the Department.
- (J) Backfill shall be carefully placed to prevent damage to the system.
- (K) Backfill shall be native soil free of large stones, frozen clumps of earth, masonry, stumps, waste construction materials, or other materials that could damage the system.
- (L) All **Drop Boxes** shall be bedded level on undisturbed soil, aggregate with a minimum of 90% compaction, or concrete.
- (M) Adequate erosion control measures shall be utilized at all times in conformance with applicable county regulations pertaining to excavation and grading (Section L-V, Article 1, Nevada County Land Use & Development Code; the California Building Code; the California Administrative Code).
- (N) **Disposal Field Inspection Risers shall be installed at both ends of each disposal trench. Inspection risers shall be installed in accordance with Diagram 9. Risers shall be sufficiently anchored to prevent accidental removal.**
- (14) **Required Inspections.** All portions of the system are subject to inspection and verification prior to covering. The system shall be inspected for conformance with the permit requirements, including all applicable setbacks. The portions normally inspected include:
- (A) A minimum of five (5) feet of the building sewer entering the septic tank.
- (B) The septic tank, including access into any manhole covers.
- (C) The effluent sewer, distribution unit, and absorption facility.

Other portions of the system may be inspected as required by the permit or if deemed necessary by the Department to determine compliance with the Regulations. Additional inspection and Certificate of Satisfactory Completion requirements are specified in Section A-022.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted\***

(15) **Large system requirement.** Systems with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons shall be designed in accordance with the requirements set forth in Section T-090.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

(15) **Large system requirement.** Systems with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons shall be designed in accordance with the requirements set forth in Section T-090.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

~~edits/deletions highlighted~~

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-054: SPECIAL DESIGN SYSTEM REQUIREMENTS

Note: The use of such systems shall be in accordance with the current Memorandum of Agreement on the utilization of special design/experimental systems between the State Regional Water Quality Control Board and Nevada County.

- (1) **A special design system is any Department-approved system that ~~is not a standard system, experimental system, vault, privy, holding tank, pit privy, kitchen waste disposal, graywater system, waterless or portable toilet. It includes, but is not limited to: pressure distribution and deep trench systems, curtain drains, san filters, mounds and package or plant systems.~~**
- (2) **Unless otherwise indicated** in specific special design system sections or by the Department, all provisions pertaining to the site evaluation criteria, design (including sizing), installation, construction, and maintenance of standard systems shall apply to special design systems.
- (3) **Criteria for system sizing.** The sizing criteria for standard systems shall apply to special design systems except as otherwise specified in this Section.
  - (A) A design percolation rate less than 6 mpi or greater than 60 mpi shall utilize pressure distribution as the means of distribution in the disposal field, consistent with the requirements of Section T-058.  
EXCEPTION: At the discretion of the consultant, systems with design percolation rates of 61-90 mpi may utilize gravity flow in lieu of pressure distribution as the means of distribution in the disposal field.
  - (B) Any proposed design utilizing soil types "A" or "E" shall utilize pressure distribution as the means of distribution in the disposal field, consistent with the requirements of Section T-058.
- (4) **Special design systems shall not be used** in lieu of a standard system when a proposed site can meet the requirements for installation of a standard system.  
EXCEPTION. Pressurized distribution may be used in any circumstance where this method of effluent distribution is desired. ~~Deep trench systems may be used as provided in Section T-062.~~
- (5) **Periodic inspection of installed systems.** Where required by rule, regulation, or State guideline, periodic inspection of installed special design systems shall be required and/or performed by the Department. An inspection fee may be charged.  
  
The Department shall prepare a report of each inspection. The report shall list system deficiencies and a correction report shall be provided promptly to the system owner. Necessary follow-up inspections shall be scheduled.
- (6) **Commercial Facilities.** Projected daily flows for commercial facilities shall be estimated using Table 2 - Quantities of Sewage Flow (contained in Section T-112). The Department may approve, on a case-by-case basis, metered water use data, data from the most current Board of Supervisors-approved version of the Uniform Plumbing Code, or other supporting data in lieu of the estimated sewage flows set forth in Table 2 (contained in Section T-112).
- (7) **Commercial Facilities that prepare foods**, (e.g., kitchens, restaurants) shall install a grease trap or interceptor pursuant to the requirements of the most recently Board of Supervisors-adopted edition of the Uniform Plumbing Code and amendments thereto, and the requirements of the Administrative Authority having jurisdiction, including a permit if required by the Administrative Authority.
- (8) **Unless otherwise indicated** in a specific section of these regulations, all special design systems shall be designed and installed under the inspection and approval of a qualified consultant and the Department. A consultant shall submit written certification that the system has been installed in accordance with the approved construction/design plan and permit conditions. The Department shall not issue a Certificate of Satisfactory Completion for any system installation until certification of the installation is received from a consultant. The consultant shall provide the owner with a maintenance manual which outlines the operation of the system, including the owner's responsibilities for maintaining the system.
- (9) **Special design systems approved for the creation of lots, parcels and additional building sites** shall demonstrate a minimum usable sewage disposal area in accordance with the chart in Section A-036 (3)(D).
- (10) **Inspection risers ~~or reinforcement bar (re-bar)~~** shall be installed at the end of each disposal trench. Inspection risers shall be constructed in accordance with Diagram 9. ~~Re-bar shall be a minimum #4 bar (1/2"), 18" long, placed into the soil to six (6) inches below finish grade. Materials other than re-bar may be approved by the Department.~~
- (11) **Septic tank sizing for commercial facilities**
  - (A) For projected daily sewage flows up to fifteen hundred (1,500) gallons, the septic tank shall have a liquid capacity equal to at least one and one-half (1-1/2) days sewage flow, or one thousand (1,000) gallons, whichever is

### T-054: SPECIAL DESIGN SYSTEM REQUIREMENTS

Note: The use of such systems shall be in accordance with the current Memorandum of Agreement on the utilization of special design/experimental systems between the State Regional Water Quality Control Board and Nevada County.

- (1) **A special design system is any Department-approved system that does not meet standard system requirements.**
- (2) **Unless otherwise indicated** in specific special design system sections or by the Department, all provisions pertaining to the site evaluation criteria, design (including sizing), installation, construction, and maintenance of standard systems shall apply to special design systems.
- (3) **Criteria for system sizing.** The sizing criteria for standard systems shall apply to special design systems except as otherwise specified in this section.
  - (A) A design percolation rate less than 6 mpi or greater than 60 mpi shall utilize pressure distribution as the means of distribution in the disposal field, consistent with the requirements of Section T-058.  
EXCEPTION: At the discretion of the consultant, systems with design percolation rates of 61-90 mpi may utilize gravity flow in lieu of pressure distribution as the means of distribution in the disposal field.
  - (B) Any proposed design utilizing soil types "A" or "E" shall utilize pressure distribution as the means of distribution in the disposal field, consistent with the requirements of Section T-058.
- (4) **Special design systems shall not be used** in lieu of a standard system when a proposed site can meet the requirements for installation of a standard system.  
EXCEPTION. Pressurized distribution may be used in any circumstance where this method of effluent distribution is desired.
- (5) **Periodic inspection of installed systems.** Where required by rule, regulation, or State guideline, periodic inspection of installed special design systems shall be required and/or performed by the Department. An inspection fee may be charged.  
  
The Department shall prepare a report of each inspection. The report shall list system deficiencies and a correction report shall be provided promptly to the system owner. Necessary follow-up inspections shall be scheduled.
- (6) **Commercial Facilities.** Projected daily flows for commercial facilities shall be estimated using Table 2 - Quantities of Sewage Flow (contained in Section T-112). The Department may approve, on a case-by-case basis, metered water use data, data from the most current Board of Supervisors-approved version of the California Uniform Plumbing Code, or other supporting data in lieu of the estimated sewage flows set forth in Table 2 (contained in Section T-112).
- (7) **Commercial Facilities that prepare foods**, (e.g., kitchens, restaurants) shall install a grease trap or interceptor pursuant to the requirements of the most recently Board of Supervisors-adopted edition of the California Uniform Plumbing Code and amendments thereto, and the requirements of the Administrative Authority having jurisdiction, including a permit if required by the Administrative Authority.
- (8) **Unless otherwise indicated** in a specific section of these regulations, all special design systems shall be designed and installed under the inspection and approval of a qualified consultant and the Department. A consultant shall submit written certification that the system has been installed in accordance with the approved construction/design plan and permit conditions. The Department shall not issue a Certificate of Satisfactory Completion for any system installation until certification of the installation is received from a consultant. The consultant shall provide the owner with a maintenance manual which outlines the operation of the system, including the owner's responsibilities for maintaining the system.
- (9) **Special design systems approved for the creation of lots, parcels and additional building sites** shall demonstrate a minimum usable sewage disposal area in accordance with the chart in Section A-036 (3)(D).
- (10) **Inspection risers** shall be installed at the end of each disposal trench. Inspection risers shall be constructed in accordance with Diagram 9.
- (11) **Septic tank sizing for commercial facilities**
  - (A) For projected daily sewage flows up to fifteen hundred (1,500) gallons, the septic tank shall have a liquid capacity equal to at least one and one-half (1-1/2) days sewage flow, or one thousand (1,000) gallons, whichever is greater.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted\***

- greater.
- (B) For projected daily sewage flows greater than fifteen hundred (1,500) gallons, the septic tank shall have a liquid capacity equal to eleven hundred twenty-five (1,125) gallons plus seventy-five (75) percent of the projected daily sewage flow.
  - (C) Additional volume may be required by the Department for special circumstances.
  - (D) The quantity of daily sewage flow shall be estimated in gallons per day using Table 2 - Quantities of Sewage Flow (contained in Section T-112). The Department may approve, for other than single-family dwellings, data from the most current Board of Supervisors-approved version of the Uniform Plumbing Code, ~~or reliable (as determined by the Department) metered water use data in lieu of the estimated sewage flows set forth in Table 2 (contained in Section T-112).~~

**(12) Permit application and construction/design plan requirements**

An application for a permit shall be made in accordance with the procedure and requirements of Section A-016 and include a construction schedule, (including critical points during construction at which time inspections shall be made by the consultant).

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

- (B) For projected daily sewage flows greater than fifteen hundred (1,500) gallons, the septic tank shall have a liquid capacity equal to eleven hundred twenty-five (1,125) gallons plus seventy-five (75) percent of the projected daily sewage flow.
- (C) Additional volume may be required by the Department for special circumstances.
- (D) The quantity of daily sewage flow shall be estimated in gallons per day using Table 2 - Quantities of Sewage Flow (contained in Section T-112). The Department may approve, for other than single-family dwellings, data from the most current Board of Supervisors-approved version of the California Uniform Plumbing Code.

**(12) Permit application and construction/design plan requirements.**

An application for a permit shall be made in accordance with the procedure and requirements of Section A-016 and include a construction schedule, (including critical points during construction at which time inspections shall be made by the consultant).

- (13)** An artificial drain may be required to intercept and/or drain water from a disposal area; however, it may be required to demonstrate that the site can be de-watered prior to issuing a permit. Where required, artificial drains are an integral part of the system, but do not need to meet setback requirements to property lines, streams, lakes, ponds or other surface water bodies. However, artificial drains shall meet the setback requirements to systems as specified in Table 1 (contained in Section T-112). Artificial drains shall be designed by a consultant and meet the other requirements of Section T-054, as well as minimum materials and construction specifications indicated in Section T-110. Diagram 13 illustrates a typical artificial (curtain) drain design.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-056: CAPPING FILL SYSTEM REQUIREMENTS

(see Diagram 10)

- (1) **General statement.** A capping fill system is a special design system where the disposal trench effective sidewall is installed a minimum of twelve (12) inches into natural soil below a soil cap of specified depth and texture. The shallow construction of the system allows for installation where fractured bedrock, a limiting layer or groundwater is closer to ground surface. This section describes the requirements for *gravity-fed* capping fill systems. *Pressure-dosed* capping fill systems shall meet the requirements of this Section as well as Section T-058: "Pressurized Distribution System Requirements".
- (2) **Criteria for approval.** In order to be approved for a capping fill system, each site must meet all of the following conditions:
  - (A) The slope shall not exceed twenty (20) percent in the disposal area and replacement area.
  - (B) Unless otherwise approved by the Department, the effective soil depth shall ~~extend a minimum of four (4) feet below the bottom of the disposal trench.~~
- (3) **Design criteria.** Unless otherwise specified, the system shall be designed in accordance with the provisions of Section T-052, standard systems.
 

(A) Disposal trenches:	Depth: 12 inches minimum Width: 24 inches minimum 36 inches maximum
(B) Cap depth:	12 inches minimum (after settling)
- (4) **Installation requirements.** Unless otherwise required by the Department, the installation shall meet the installation and construction requirements of Section T-052 and the following:
  - (A) The soil to be used for the cap may be examined and shall be approved by the Department prior to placement. The soil texture shall be of the same textural class as the natural topsoil, or of one textural class finer;
  - (B) The disposal area shall have the vegetation removed and shall be scarified, parallel to contours, no deeper than six (6) inches.
  - (C) Soil cap shall extend a minimum of five (5) feet beyond the exterior trench sidewall.
  - (D) The site shall be landscaped for erosion control in accordance with the approved construction/design plan and permit requirements.
- (5) **Required inspections.** Inspection criteria and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052.
  - (A) The disposal area and fill material may be inspected for scarification, soil texture, and moisture content.
  - (B) Prior to backfill of the installed disposal system.
  - (C) The final placement of the soil cap may be inspected.
- (6) **Criteria for system sizing.** System sizing shall meet the minimum requirements of Section T-052 (4) and (7).

### T-056: CAPPING FILL SYSTEM REQUIREMENTS

(see Diagram 11)

- (1) **General statement.** A capping fill system is a special design system where the disposal trench effective sidewall is installed a minimum of twelve (12) inches into natural soil below a soil cap of specified depth and texture. The shallow construction of the system allows for installation where fractured bedrock, a limiting layer or groundwater is closer to ground surface. This section describes the requirements for *gravity-fed* capping fill systems. *Pressure-dosed* capping fill systems shall meet the requirements of this Section as well as Section T-058: "Pressurized Distribution System Requirements".
- (2) **Criteria for approval.** In order to be approved for a capping fill system, each site must meet all of the following conditions:
  - (A) The slope shall not exceed twenty (20) percent in the disposal area and replacement area.
  - (B) Unless otherwise approved by the Department, the effective soil depth shall meet the minimum soil depth of the type of system proposed.
- (3) **Design criteria.** Unless otherwise specified, the system shall be designed in accordance with the provisions of Section T-052, standard systems.
 

(A) Disposal trenches:	Depth: 12 inches minimum Width: 24 inches minimum 36 inches maximum
(B) Cap depth:	12 inches minimum (after settling)
- (4) **Installation requirements.** Unless otherwise required by the Consultant, the installation shall meet the installation and construction requirements of Section T-052 and the following:
  - (A) The soil to be used for the cap may be examined and shall be approved by the Department prior to placement. The soil texture shall be of the same textural class as the natural topsoil, or of one textural class finer;
  - (B) The disposal area shall have the vegetation removed and shall be scarified, parallel to contours, no deeper than six (6) inches.
  - (C) Soil cap shall extend a minimum of five (5) feet beyond the exterior trench sidewall.
  - (D) The site shall be landscaped for erosion control in accordance with the approved construction/design plan and permit requirements.
- (5) **Required inspections.** Inspection criteria and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052.
  - (A) The disposal area and fill material may be inspected for scarification, soil texture, and moisture content.
  - (B) Prior to backfill of the installed disposal system.
  - (C) The final placement of the soil cap may be inspected.
- (6) **Criteria for system sizing.** System sizing shall meet the minimum requirements of Section T-052 (4) and (7).

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### T-058: PRESSURIZED DISTRIBUTION SYSTEM REQUIREMENTS

(see Diagram 11 & 12)

- (1) **General statement.** Pressurized distribution refers to a method of distributing effluent evenly over the entire soil absorption area through a network of small diameter pipes under low pressure. This method may be a special design for some sites to mitigate the limitations associated with soils with rapid permeability or slow permeability.
- (2) **Criteria for Approval.** Pressurized distribution systems shall meet the following requirements:
  - (A) Pressurized distribution systems may be permitted on any site that meets the requirements for standard systems, or on sites approved for special design systems. The pressurized distribution system shall meet all the applicable requirements for a system as stated in Section T-052 unless otherwise specified.
  - (B) The proposed disposal area and replacement area shall demonstrate a minimum of four (4) feet of effective soil depth beneath the disposal trench bottom. For soil types "D" & "E" defined in Section T-052 (4)(B)(1.), this distance may be reduced to no less than three (3) feet of effective soil depth.
  - (C) For existing lots or parcels, pressure distribution systems may be installed in soil Groups A, B, C, D, or E, as identified in Section T-052 (4), or percolation rates 1-240 minutes per inch.
  - (D) For creating lots and parcels, pressure distribution systems may be installed in Soil Groups B, C, D, and E as identified in Section T-052 (4), or percolation rates 6-120 minutes per inch.
  - (E) System monitoring and inspections requirements in conformance with Section A-026.
- (3) **Design, materials and construction requirements.**
  - (A) **General.**
    - (1.) All materials used in pressurized systems shall be structurally sound, durable, and capable of withstanding normal stresses incidental to installation and operation.
    - (2.) Nothing in these rules shall be construed to set aside applicable building, electrical, or other codes. An electrical permit and inspection from the local Administrative Authority shall be obtained if required for pump wiring installation.
  - (B) **Criteria for system sizing.** The disposal area and septic tank capacity shall at a minimum meet the provisions of Section T-052 (4) and (7). For systems where trench depth is less than 24-inches, percolation tests shall be performed in the layer of most restrictive permeability that occurs within four (4) feet of the trench bottom. The deeper percolation test data shall be considered in the design of the system.
  - (C) **Pressurized distribution lateral requirements.** Piping, valves and fittings for pressurized systems shall meet the following minimum requirements:
    - (1.) All pressure transport, manifold, distribution lateral piping and fittings shall meet or exceed the requirements for Schedule 40 PVC pressure pipe as identified in ASTM Specification D1785 or other material approved by the Department.
    - (2.) All pressure distribution laterals and fittings shall be adequately sized for the design flow.
    - (3.) All pressure transport and manifold piping shall be adequately sized for the design flow.
    - (4.) Pressure transport piping shall be uniformly supported along the trench bottom, and at the discretion of the Department, it shall be bedded in sand or other material approved by the Department;
    - (5.) The ends of lateral piping shall have blow-off risers that accommodate threaded plugs or caps (see Diagram 9).
    - (6.) All joints in the pressure distribution manifold, lateral piping, and fittings shall be solvent welded, using the appropriate solvent for the pipe material. Pressure transport piping may be solvent welded or rubber ring jointed;
    - (7.) A gate valve shall be placed on the pressure transport pipe, in or near the dosing tank, when required.
    - (8.) A check valve shall be placed between the pump and the gate valve, when required. A check valve is not required if the pump has an internal check valve. All check valves and gate valves must be in an accessible and protected location for maintenance and repair.
  - (D) **Pump.** The pump shall meet the minimum design, materials, and construction standards as outlined in Section T-100.

### T-058: PRESSURIZED DISTRIBUTION SYSTEM REQUIREMENTS

(see Diagram 12 & 13)

- (1) **General statement.** Pressurized distribution refers to a method of distributing effluent evenly over the entire soil absorption area through a network of small diameter pipes under low pressure. This method may be a special design for some sites to mitigate the limitations associated with soils with rapid permeability or slow permeability.
- (2) **Criteria for Approval.** Pressurized distribution systems shall meet the following requirements:
  - (A) Pressurized distribution systems may be permitted on any site that meets the requirements for standard systems, or on sites approved for special design systems. The pressurized distribution system shall meet all the applicable requirements for a system as stated in Section T-052 unless otherwise specified.
  - (B) The proposed disposal area and replacement area shall demonstrate a minimum of four (4) feet of effective soil depth beneath the disposal trench bottom. For soil types "D" & "E" defined in Section T-052 (4)(B)(1.), this distance may be reduced to no less than three (3) feet of effective soil depth.
  - (C) For existing lots or parcels, pressure distribution systems may be installed in soil Groups A, B, C, D, or E, as identified in Section T-052 (4), or percolation rates 1-240 minutes per inch.
  - (D) For creating lots and parcels, pressure distribution systems may be installed in Soil Groups B, C, D, and E as identified in Section T-052 (4), or percolation rates 6-120 minutes per inch.
  - (E) System monitoring and inspections requirements in conformance with Section A-026.
- (3) **Design, materials and construction requirements.**
  - (A) **General.**
    - (1) All materials used in pressurized systems shall be structurally sound, durable, and capable of withstanding normal stresses incidental to installation and operation.
    - (2) Nothing in these rules shall be construed to set aside applicable building, electrical, or other codes. An electrical permit and inspection from the local Administrative Authority shall be obtained if required for pump wiring installation.
  - (B) **Criteria for system sizing.** The disposal area and septic tank capacity shall at a minimum meet the provisions of Section T-052 (4) and (7). For systems where trench depth is less than 24-inches, percolation tests shall be performed in the layer of most restrictive permeability that occurs within four (4) feet of the trench bottom. The deeper percolation test data shall be considered in the design of the system.
 

Application rate shall be as follows:

    1.  $3.5/\sqrt{t}$  if sidewall area is to be considered, i.e. deep trench, pressure dose or,
    2.  $5/\sqrt{t}$  in considering trench bottom area only, i.e. conventional pressure dose system.
  - (C) **Pressurized distribution lateral requirements.** Piping, valves and fittings for pressurized systems shall meet the following minimum requirements:
    - (1) All pressure transport, manifold, distribution lateral piping and fittings shall meet or exceed the requirements for Schedule 40 PVC pressure pipe as identified in ASTM Specification D1785 or other material approved by the Department.
    - (2) All pressure distribution laterals and fittings shall be adequately sized for the design flow.
    - (3) All pressure transport and manifold piping shall be adequately sized for the design flow.
    - (4) Pressure transport piping shall be uniformly supported along the trench bottom, and at the discretion of the Department, it shall be bedded in sand or other material approved by the Department;
    - (5) The ends of lateral piping shall have blow-off risers that accommodate threaded plugs or caps (see Diagram 9).
    - (6) All joints in the pressure distribution manifold, lateral piping, and fittings shall be solvent welded, using the appropriate solvent for the pipe material. Pressure transport piping may be solvent welded or rubber ring jointed;
    - (7) A gate valve shall be placed on the pressure transport pipe, in or near the dosing tank, when required.
    - (8) A check valve shall be placed between the pump and the gate valve, when required. A check valve is not required if the pump has an internal check valve. All check valves and gate valves must be in an accessible and protected location for maintenance and repair.
    - (9) Caution tape that clearly states, "Caution Sewer Pipe", or other equal wording, shall be installed on the piping that conveys sewage effluent from the pump/dosing tank of a septic system to a manifold or leach field.
  - (D) **Pump.** The pump shall meet the minimum design, materials, and construction standards as outlined in Section T-100.



## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

- (E) Dosing tank design, materials and construction requirements.
- (1.) Materials and construction for dosing tanks shall comply with the minimum standards in Section T-098.
  - (2.) The capacity of the tank shall be sufficient to deliver the design dose and shall have a minimum capacity of 500 gallons. The liquid capacity shall be measured from the invert elevation of the inlet fitting, to the bottom of the tank.
  - (3.) The second compartment of the septic tank may be utilized as a dosing tank under the following circumstances:
    - (a.) The float level elevations shall be clearly identified on the plan.
    - (b.) A minimum 1500-gallon septic tank will be used.
    - (c.) In no event shall the liquid portion be drawn down to within 12-inches of the tee fitting or baffle slot in the common compartment wall.
  - (4.) Duplex alternating pumps may be required by the Department for some installations.(e.g., large systems approved for commercial facilities or community systems).
  - (5.) The dose volume shall be calculated using the following minimum and maximum dosing range formulas:  
 $V_{min} = V_s + 5V_I$   
 $V_{max} = V_s + 10V_I$   
 where:  
 $V_{min}$  = Minimum volume of dose  
 $V_{max}$  = Maximum volume of dose  
 $V_s$  = Volume of supply line  
 $V_I$  = Total volume of lateral lines
- (F) Disposal trench design, materials, and construction requirements:
- (1.) Disposal trenches shall be constructed using the specifications for the standard disposal trench (Section T-052), except for the following:
    - (a.) Pressure lateral piping shall have a minimum six (6) inches of filter material below, and not less than one inch of filter material above the piping; and
    - (b.) Depth: minimum 12 inches
    - (c.) Bottom width: maximum 36 inches
    - (d.) Length of lateral shall be limited to that length which will result in no more than a 10% head loss over the length of the lateral.
  - (2.) The top of the filter material shall be covered with filter fabric or other material approved by the Department.
  - (3.) A minimum of 12 inches of backfill is required over the filter fabric within the disposal trench.
  - (4.) Inspection and blow-off risers constructed in accordance with Diagram 9 shall be placed at the end of the pressure distribution lateral within the disposal trench.
  - (5.) All orifices of pressure distribution laterals that face upward shall be covered with orifice shields to prevent soil washout.
- (4) **Hydraulic design criteria.**
- (A) There shall be a minimum two (2) feet head at the orifice furthest from the manifold and no more than ten (10) percent head variation within a disposal trench.
  - (B) Lateral piping shall have discharge orifices drilled upward or downward, a minimum diameter of one-eighth (1/8) inch, and evenly spaced at a distance not greater than two (2) feet in coarse-textured soils or greater than six (6) feet in finer-textured soils.
  - (C) The effect of back drainage of the total volume of effluent within the pressure distribution system shall be evaluated for its impact upon the dosing tank and system operation.
- (5) **Installation requirements.** Unless otherwise indicated on the permit or elsewhere in this Section, the installation standards of Section T-052 shall apply, and:
- (A) The pressure distribution lateral laid within the center of the trench above the gravel shall be level to within two (2) inches in one hundred (100) feet;
  - (B) Small earth berms may be required at specific intervals on trench bottoms at the discretion of the Department and design consultant;
  - (C) Each dosing tank shall be installed on a stable level base;
  - (D) Each dosing tank shall be provided with a watertight riser extending to the ground surface or above, with a minimum inside horizontal measurement equal to or greater than the tank access manhole. The watertight riser shall meet the materials and construction provisions of Section T-092 (3); and
  - (E) Dosing tanks located in high groundwater areas shall be weighted or provided with an anti-buoyancy device to prevent flotation.
- (6) **Sloping site requirements.**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

- (E) Dosing tank design, materials and construction requirements.
- (1) Materials and construction for dosing tanks shall comply with the minimum standards in Section T-098.
  - (2) The capacity of the tank shall be sufficient to deliver the design dose and shall have a minimum capacity of 500 gallons. The liquid capacity shall be measured from the invert elevation of the inlet fitting, to the bottom of the tank.
  - (3) The second compartment of the septic tank may be utilized as a dosing tank under the following circumstances:
    - (a) The float level elevations shall be clearly identified on the plan.
    - (b) A minimum 1500-gallon septic tank will be used.
    - (c) In no event shall the liquid portion be drawn down to within 12-inches of the tee fitting or baffle slot in the common compartment wall.
  - (4) Duplex alternating pumps may be required by the Department for some installations.(e.g., large systems approved for commercial facilities or community systems).
  - (5) The dose volume shall be calculated using the following minimum and maximum dosing range formulas:  
 $V_{min} = V_s + 5V_I$   
 $V_{max} = V_s + 10V_I$   
Where:  
 $V_{min}$  = Minimum volume of dose  
 $V_{max}$  = Maximum volume of dose  
 $V_s$  = Volume of supply line,  $V_s$  may be reduced by portions of the supply line which remain charged between pump cycles by check valves.  
 $V_I$  = Total volume of lateral lines
- (F) Disposal trench design, materials, and construction requirements:
- (1) Disposal trenches shall be constructed using the specifications for the standard disposal trench (Section T-052), except for the following:
    - (a) Pressure lateral piping shall have a minimum six (6) inches of filter material below, and not less than one inch of filter material above the piping; and
    - (b) Depth: minimum 12 inches
    - (c) Bottom width: maximum 36 inches
    - (d) Length of lateral shall be limited to that length which will result in no more than a 10% head loss over the length of the lateral.
  - (2) The top of the filter material shall be covered with filter fabric or other material approved by the Department.
  - (3) A minimum of 12 inches of backfill is required over the filter fabric within the disposal trench.
  - (4) Inspection and blow-off risers constructed in accordance with Diagram 9 shall be placed at the end of the pressure distribution lateral within the disposal trench.
  - (5) All orifices of pressure distribution laterals that face upward shall be covered with orifice shields to prevent soil washout.
- (4) **Hydraulic design criteria.**
- (A) There shall be a minimum two (2) feet head at the orifice furthest from the manifold and no more than ten (10) percent head variation within a disposal trench.
  - (B) Lateral piping shall have discharge orifices drilled upward or downward, a minimum diameter of one-eighth (1/8) inch, and evenly spaced at a distance not greater than two (2) feet in coarse-textured soils or greater than six (6) feet in finer-textured soils.
  - (C) The effect of back drainage of the total volume of effluent within the pressure distribution system shall be evaluated for its impact upon the dosing tank and system operation.
- (5) **Installation requirements.** Unless otherwise indicated on the permit or elsewhere in this Section, the installation standards of Section T-052 shall apply, and:
- (A) The pressure distribution lateral laid within the center of the trench above the gravel shall be level to within two (2) inches in one hundred (100) feet;
  - (B) Small earth berms may be required at specific intervals on trench bottoms at the discretion of the Department and design consultant;
  - (C) Each dosing tank shall be installed on a stable level base;
  - (D) Each dosing tank shall be provided with a watertight riser extending to the ground surface or above, with a minimum inside horizontal measurement equal to or greater than the tank access manhole. The watertight riser shall meet the materials and construction provisions of Section T-092 (3); and
  - (E) Dosing tanks located in high groundwater areas shall be weighted or provided with an anti-buoyancy device to prevent flotation.
- (6) **Sloping site requirements.**

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted\***

- (A) Flow restrictors shall be installed on each pressure distribution lateral to facilitate regulation of flow within each lateral.
  - (B) Where the disposal field is located downslope from the pump, an anti-siphon valve on the supply line to the trenches shall be installed in the dosing tank, above the high liquid level.
- (7) **Required inspections.** Required inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14), and include the following:
- (A) Inspection of the dosing system components, e.g., the location of the pump, screen, switches, alarms, and valves; and
  - (B) Inspection of the pressure distribution system and verification of hydraulic head over the pressure distribution laterals (AKA, "squirt test"). Water and electricity must be available for this inspection. If this inspection is performed utilizing a temporary power supply (such as a generator), a final inspection conducted by either the consultant or the department shall be made after connection to the permanent power supply, to verify the design head over the distribution system.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

- (A) Flow restrictors shall be installed on each pressure distribution lateral to facilitate regulation of flow within each lateral.
  - (B) Where the disposal field is located downslope from the pump, an anti-siphon valve on the supply line to the trenches shall be installed in the dosing tank, above the high liquid level.
  - (C) Where the disposal field is located downslope a Mechanical Activation Dosing System may be permitted
- (7) **Required inspections.** Required inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14), and include the following:
- (A) Inspection of the dosing system components, e.g., the location of the pump, screen, switches, alarms, and valves; and
  - (B) Inspection of the pressure distribution system and verification of hydraulic head over the pressure distribution laterals (AKA, "squirt test"). Water and electricity must be available for this inspection. If this inspection is performed utilizing a temporary power supply (such as a generator), a final inspection conducted by either the consultant or the department shall be made after connection to the permanent power supply, to verify the design head over the distribution system.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

~~edits/deletions highlighted~~

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-060: PUMP SYSTEM REQUIREMENTS

(see Diagram 12)

- (1) **General statement.** A pump system is utilized to enable the installation of a disposal field upslope of the structure to be served. The effluent is not distributed to the disposal field under pressure, but by gravity flow following pumping to a higher elevation.
- (2) **Criteria for approval.** The criteria for approval as outlined in Section T-052 shall be met.
- (3) **Criteria for system sizing.** System sizing shall meet the provisions of Section T-052 (4) and (7).
- (4) **Pump requirements.** The pump shall meet the minimum design, materials, and construction specifications in Section T-100. Additionally, pumps shall meet total head requirements of the site encompassing elevation head, friction head, and pressure head.
- (5) **Pump tank requirements.**
  - (A) The pump tank shall have capacity sufficient to deliver the design dose and have a minimum capacity of 500 gallons.
  - (B) The high water alarm shall activate immediately when the liquid level exceeds the normal elevation for the "on float" by six (6) inches.
  - (C) Each tank shall be installed on a stable level base.
  - (D) Construction of the tank shall comply with the standards in Section T-098.
  - (E) Each pump tank shall be provided with a watertight riser extending to the ground surface or above, with a minimum inside horizontal measurement equal to or greater than the tank access manhole. Provision shall be made for securely fastening the manhole cover.
  - (F) Pump tanks in high groundwater areas shall be weighted or provided with an anti-buoyancy device to prevent flotation.
  - ~~(G) The second compartment of the septic tank may be utilized as a dosing tank under the following circumstances:
 
    - (1.) The float level elevations shall be clearly identified on the plan.
    - (2.) A minimum 1500-gallon septic tank will be used.
    - (3.) In no event shall the liquid portion be drawn down to within 12 inches of the tee fitting or baffle slot in the common compartment wall.~~
- (6) **Installation requirements.** Unless otherwise indicated on the permit, installation requirements shall be as specified in Section T-052 and Section T-058 (5) (with application as a pump tank, not dosing tank).
- (7) **Required inspections.** Inspection and issuance of the Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14). Additionally, an inspection of the system components and pump function may be made.

### T-060: PUMP SYSTEM REQUIREMENTS

(see Diagram 13)

- (1) **General statement.** A pump system is utilized to enable the installation of a disposal field upslope of the structure to be served. The effluent is not distributed to the disposal field under pressure, but by gravity flow following pumping to a higher elevation.
- (2) **Criteria for approval.** The criteria for approval as outlined in Section T-052 shall be met.
- (3) **Criteria for system sizing.** System sizing shall meet the provisions of Section T-052 (4) and (7).
- (4) **Pump requirements.** The pump shall meet the minimum design, materials, and construction specifications in Section T-100. Additionally, pumps shall meet total head requirements of the site encompassing elevation head, friction head, and pressure head.
- (5) **Pump tank requirements.**
  - (A) The pump tank shall have capacity sufficient to deliver the design dose and have a minimum capacity of 500 gallons.
  - (B) The high water alarm shall activate immediately when the liquid level exceeds the normal elevation for the "on float" by six (6) inches.
  - (C) Each tank shall be installed on a stable level base.
  - (D) Construction of the tank shall comply with the standards in Section T-098.
  - (E) Each pump tank shall be provided with a watertight riser extending to the ground surface or above, with a minimum inside horizontal measurement equal to or greater than the tank access manhole. Provision shall be made for securely fastening the manhole cover.
  - (F) Pump tanks in high groundwater areas shall be weighted or provided with an anti-buoyancy device to prevent flotation.
- (6) **Installation requirements.** Unless otherwise indicated on the permit, installation requirements shall be as specified in Section T-052 and Section T-058 (5) (with application as a pump tank, not dosing tank).
- (7) **Required inspections.** Inspection and issuance of the Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14). Additionally, an inspection of the system components and pump function may be made.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

<b>T-062: DEEP TRENCH SYSTEM REQUIREMENTS</b>	
<b>(1)</b>	<b>General statement.</b> A deep trench system is a system with disposal trenches greater than thirty (30) inches deep. Trench depth must be kept as shallow as possible to take advantage of those soil horizons that best provide oxygen and promote microbiological activity.
<b>(2)</b>	<b>Criteria for approval.</b> A deep trench system will only be permitted under the following conditions: <b>(A)</b> A lot or parcel is inadequate to accommodate a standard system for the development proposed, and/or <b>(B)</b> There are greater than 48-inches of effective soil depth below the bottom of the disposal trench in the disposal field and replacement area.
<b>(3)</b>	<b>Design criteria.</b> <b>(A)</b> Unless otherwise approved by the Department the disposal trench shall have a minimum depth of thirty-one (31) inches, and a maximum width of thirty-six (36) inches. <b>(B)</b> The deep trench system absorption area and septic tank liquid capacity required shall be calculated using the standard system criteria for system sizing in Section T-052 (4) and (7). For calculating lineal feet, the sidewall area (extending the entire gravel depth) shall be used. <b>(C)</b> The minimum disposal trench spacing (sidewall-to-sidewall) within a disposal field shall be four (4) feet or two (2) times the depth of the filter material, whichever is greater.
<b>(4)</b>	<b>Installation requirements.</b> Unless otherwise indicated on the permit, or elsewhere in this Section, installation requirements shall be the same as for a standard system (Section T-052).
<b>(5)</b>	<b>Required inspections.</b> Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).

<b>T-062: DEEP TRENCH SYSTEM REQUIREMENTS</b>	
<b>(1)</b>	<b>General statement.</b> A deep trench system is a system with disposal trenches greater than thirty (30) inches deep. Trench depth must be kept as shallow as possible to take advantage of those soil horizons that best provide oxygen and promote microbiological activity.
<b>(2)</b>	<b>Criteria for approval.</b> A deep trench system will only be permitted under the following conditions: <b>(A)</b> A lot or parcel is inadequate to accommodate a standard system for the development proposed, and/or <b>(B)</b> There are greater than 48-inches of effective soil depth below the bottom of the disposal trench in the disposal field and replacement area.
<b>(3)</b>	<b>Design criteria.</b> <b>(A)</b> Unless otherwise approved by the Department the disposal trench shall have a minimum depth of thirty-one (31) inches, and a maximum width of thirty-six (36) inches. <b>(B)</b> The deep trench system absorption area and septic tank liquid capacity required shall be calculated using the standard system criteria for system sizing in Section T-052 (4) and (7). For calculating lineal feet, the sidewall area (extending the entire gravel depth) shall be used. <b>(C)</b> The minimum disposal trench spacing (sidewall-to-sidewall) within a disposal field shall be four (4) feet or two (2) times the depth of the filter material, whichever is greater. <b>(D)</b> If pressure distribution is used the application rate shall be as follows: - 3.5/√(t) if sidewall area is to be considered - 5/√(t) for considering trench bottom area only
<b>(4)</b>	<b>Installation requirements.</b> Unless otherwise indicated on the permit, or elsewhere in this Section, installation requirements shall be the same as for a standard system (Section T-052).
<b>(5)</b>	<b>Required inspections.</b> Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

*\*edits/deletions highlighted*

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

*\*new additions/changes highlighted\**

### T-064: STEEP SLOPE SYSTEM REQUIREMENTS

- (1) **General statement.** A steep slope system is a system installed on sites with slopes greater than thirty (30) percent.
- (2) **Criteria for approval.** A steep slope system shall meet the following requirements:
  - (A) Steep slope systems for existing parcels may only be developed in conformance with the county General Plan, zoning restrictions, recorded restrictions and notes on the subdivision or parcel map, and any other applicable county requirements. A variance pursuant to Section A-030 of the Administrative regulations is required to utilize a slope exceeding 30%. Steep slope systems are not permitted for creating lots and parcels.
  - ~~(B) Unless otherwise specified by the Department or hereunder, the provisions for deep trench system (T-062) shall be met. When a deep trench system is incorporated into a steep slope system, there shall be a minimum effective soil depth of seventy-nine (79) inches in the disposal area and replacement area. **\*\*REMOVED\*\***~~
  - (C) The vertical separation between a limiting layer, fractured bedrock, or groundwater which runs parallel with the ground surface slope shall be measured from the upslope side of the disposal trench bottom.
- (3) **Soil Stability Report.** The Department ~~may~~ require a geological or geotechnical report by ~~an engineering geologist or geotechnical engineer~~ where the slope exceeds 40%, or where there are indications of soil instability. The report shall discuss soil stability within the proposed disposal area and replacement area of the system and on the soil's stability with respect to the building foundation, surrounding terrain and adjacent properties. The report shall include, at a minimum:
  - (A) A site plan drawn to scale, showing topography, locations of the proposed house, driveway or other structures;
  - (B) Soil profile information as it relates to soil stability;
  - (C) Discussion of the presence of groundwater, its seasonal variation (if any) and influence on the soil stability after disposal field construction;
  - (D) Statement concerning the stability of the soil and bedrock that may specifically include an evaluation of soil creep and landslide potential at the disposal area and replacement area location and surrounding terrain;
  - (E) Recommendation for interceptor drains (if needed) that may render soil stable and prevent flooding of the disposal area and replacement area;
  - (F) Recommendation of the best structure-driveway-disposal field location relationship as it relates to soil stability; and
  - (G) Recommendation of installation methods and procedures.
- (4) **Installation requirements.**
  - (A) Unless otherwise indicated on the permit, or in this section, installation requirements shall be the same as for a standard system (Section T-052).
  - (B) Trenches shall be installed with a minimum of 12 inches of native soil cover as measured from the downhill side of the trench.
- (5) **Required inspections.** Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).

### T-066: INTERMITTENT AND RECIRCULATING SAND FILTER SYSTEM REQUIREMENTS

- (1) **General statement.** An intermittent sand filter system consists of a septic tank, dosing tank, sand filter bed and a disposal field. Effluent from a structure is periodically dosed to a bed of sand media, bacteriologically treated, and discharged into a disposal field via an underdrain. This system may be a special design for some sites to mitigate the limitations associated with shallow effective soil depth, soils with rapid permeability and very slowly permeable soils.
- (2) **Criteria for approval.** An intermittent sand filter system shall meet the following requirements:
  - (A) Sand filter systems may be installed in Soil Groups A, B, C, D, and E (as identified in Section T-052 (4)), or percolation rates of 1-240 minutes per inch.
  - (B) The proposed disposal area and replacement area shall demonstrate a minimum of two (2) feet of effective soil depth ~~(eighteen (18) inches if pressurized distribution is used)~~ beneath the disposal trench bottom.
  - (C) Unless otherwise approved, a sand filter system shall only be considered
  - (D) Meet additional requirements prescribed by the January 1996 version of the Placer County Sand Filter Guidelines and Specifications, and subsequent modifications, as ratified or adopted by the Nevada County Board of Supervisors. In the case of a conflict between requirements of the Nevada County ordinance/regulations and the Placer County Sand Filter Guidelines and Specifications, the Nevada County ordinance/regulations shall take precedence.

### T-064: STEEP SLOPE SYSTEM REQUIREMENTS

- (1) **General statement.** A steep slope system is a system installed on sites with slopes greater than thirty (30) percent, only when allowed through approval of a variance.
- (2) **Criteria for approval.** A steep slope system shall meet the following requirements:
  - (A) Steep slope systems for existing parcels may only be developed in conformance with the county General Plan, zoning restrictions, recorded restrictions and notes on the subdivision or parcel map, and any other applicable county requirements. As noted a variance application, pursuant to Section A-030 of the Administrative regulations is required to utilize a slope exceeding 30%. Steep slope systems are not permitted for creating lots and parcels.
  - (B) The vertical separation between a limiting layer, fractured bedrock, or groundwater which runs parallel with the ground surface slope shall be measured from the upslope side of the disposal trench bottom, and is to be consistent with the system-type (i.e.: 'gravity', 'pressure distribution', or 'supplemental treatment') proposed for the tested site.
- (3) **Soil Stability Report.** The Department will require a geological or geotechnical report by a registered Civil Engineer or Certified Engineering Geologist (with background in soil mechanics) where the slope exceeds 30%, or where there are indications of soil instability. The report shall discuss soil stability within the proposed disposal area and replacement area of the system and on the soil stability with respect to the building foundation, surrounding terrain and adjacent properties. The report shall include, at a minimum:
  - (A) A site plan drawn to scale, showing topography, locations of the proposed house, driveway or other structures;
  - (B) Soil profile information as it relates to soil stability;
  - (C) Discussion of the presence of groundwater, its seasonal variation (if any) and influence on the soil stability after disposal field construction;
  - (D) Statement concerning the stability of the soil and bedrock that may specifically include an evaluation of soil creep and landslide potential at the disposal area and replacement area location and surrounding terrain;
  - (E) Recommendation for interceptor drains (if needed) that may render soil stable and prevent flooding of the disposal area and replacement area;
  - (F) Recommendation of the best structure-driveway-disposal field location relationship as it relates to soil stability; and
  - (G) Recommendation of installation methods and procedures.
- (4) **Installation requirements.**
  - (A) Unless otherwise indicated on the permit, or in this section, installation requirements shall be the same as for a standard system (Section T-052).
  - (B) Trenches shall be installed with a minimum of 12 inches of native soil cover as measured from the downhill side of the trench.
- (4) **Required inspections.** Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).

### T-066: INTERMITTENT AND RECIRCULATING SAND FILTER SYSTEM REQUIREMENTS

- (1) **General statement.** An intermittent sand filter system consists of a septic tank, dosing tank, sand filter bed and a disposal field. Effluent from a structure is periodically dosed to a bed of sand media, bacteriologically treated, and discharged into a disposal field via an underdrain. This system may be a special design for some sites to mitigate the limitations associated with shallow effective soil depth, soils with rapid permeability and very slowly permeable soils.
- (2) **Criteria for approval.** An intermittent sand filter system shall meet the following requirements:
  - (A) Sand filter systems may be installed in Soil Groups A, B, C, D, and E (as identified in Section T-052 (4)), or percolation rates of 1-240 minutes per inch.
  - (B) The proposed disposal area and replacement area shall demonstrate a minimum of two (2) feet of effective soil depth beneath the disposal trench bottom.
  - (C) Unless otherwise approved, a sand filter system shall only be considered for use for a single family dwelling; and
  - (D) Meet additional requirements prescribed by the January 1996 version of the Placer County Sand Filter Guidelines and Specifications, and subsequent modifications, as ratified or adopted by the Nevada County Board of Supervisors. In the case of a conflict between requirements of the Nevada County ordinance/regulations and the Placer County Sand Filter Guidelines and Specifications, the Nevada County ordinance/regulations shall take precedence.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

- (E) System monitoring and maintenance requirements in conformance with the Monitoring and Maintenance Section A-026.
- (3) **Required inspections.** Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).
- (4) **A recirculating sand filter** may be considered on a case-by-case basis utilizing nationally recognized standards as the basis for approval.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

- (E) System monitoring and maintenance requirements in conformance with the Monitoring and Maintenance Section A-026.
- (3) **Required inspections.** Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).
- (4) **A recirculating sand filter** may be considered on a case-by-case basis utilizing nationally recognized standards as the basis for approval.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### T-068: MOUND SYSTEM REQUIREMENTS

- (1) **General statement.** A mound system is an aboveground or at-grade absorption facility useful in mitigating some of the limitations associated with inadequate effective soil depth. The mound system consists of a distribution network that under pressure evenly delivers effluent from a septic tank to a "mounded" bed of filter material over sand media.
- (2) **Criteria for approval.** The mound design and system shall meet the minimum requirements of the Department and the provisions of the State Water Resources Control Board, Guidelines for Mound Systems, most current version, and amendments thereto. The following provisions shall supersede any conflicting provisions of the Guidelines for Mound Systems that shall be met:
  - (A) An **absorption** rate of 0.6 gallons per day per square foot (gpd/ft<sup>2</sup>) shall be used for calculating the mound sand bed area.
  - (B) Sand media as described in the January 1996 version of the Placer County Sand Filter Guidelines and Specifications, and subsequent modifications, as ratified or adopted by the Nevada County Board of Supervisors, shall be used for the sand bed.
  - (C) Gravel as identified in the Guideline shall be known as filter material, as defined in Section **Error! Reference source not found.** of these regulations.
  - (D) Unless otherwise approved, a mound system shall only be considered for use for a single-family dwelling.
  - (E) System monitoring and maintenance requirements in conformance with the Monitoring and Maintenance Section A-026.
- (3) **Required inspections.** Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).

### T-068: MOUND SYSTEM REQUIREMENTS

- (1) **General statement.** A mound system is an aboveground or at-grade absorption facility – in the supplemental treatment system-type category - useful in addressing shallow effective soil depth. Similar to other supplemental treatment systems minimum vertical separation from groundwater is required to be 2 feet. The mound system consists of a distribution network that under pressure evenly delivers effluent from a septic tank to a "mounded" bed of filter material over sand media.
- (2) **Criteria for approval.** The mound design and system shall meet the minimum requirements of the Department and the provisions of the State Water Resources Control Board, Guidelines for Mound Systems, most current version, and amendments thereto. The following provisions shall supersede any conflicting provisions of the Guidelines for Mound Systems that shall be met:
  - (A) An **application rate no greater than** 0.6 gallons per day per square foot (gpd/ft<sup>2</sup>) shall be used for calculating the mound sand bed area.
  - (B) Sand media as described in the January 1996 version of the Placer County Sand Filter Guidelines and Specifications, and subsequent modifications, as ratified or adopted by the Nevada County Board of Supervisors, shall be used for the sand bed.
  - (C) Gravel as identified in the Guideline shall be known as filter material, as defined in Section T-066 of these regulations.
  - (D) Unless otherwise approved, a mound system shall only be considered for use for a single-family dwelling.
  - (E) System monitoring and maintenance requirements in conformance with the Monitoring and Maintenance Section A-026.
- (3) **Required inspections.** Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).

### ~~T-070: PACKAGE OR PLANT SYSTEMS~~

- ~~(1) **General statement.** A package or plant system is defined as a proprietary self-contained wastewater treatment and/or disposal system.~~
- ~~(2) **Criteria for approval.** Proof of compliance with the California Environmental Quality Act, California Water Quality Control Board, United States Environmental Protection Agency and National Sanitation Foundation ANSI/NSF 40-1990 Class I standards is required.~~
- ~~(3) **General Requirements:**~~
  - ~~(A) An engineering study by qualified consultant.~~
  - ~~(B) Proof of long term performance and reliability.~~
  - ~~(C) A monitoring and maintenance program acceptable to the Department.~~

**\*\*ENTIRE T-070 SECTION REMOVED\*\***

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### T-072: HOLDING TANK REQUIREMENTS

- (1) **General statement.** A holding tank is a watertight container designed to receive and store sewage for disposal at another location.
- (2) **Criteria for approval.** A permit shall be issued for a holding tank on sites that meet all of the following conditions:
  - (A) The site cannot be approved for the installation of a standard system or special design system;
  - (B) No community or area-wide public sewer system is legally and physically available as defined in Section A-018(1)(E);
  - (C) The tank is intended to serve a small industrial or commercial building, or an occasional event such as a county fair or a rodeo;
  - (D) Unless otherwise approved by the Department, the projected daily sewage flow is not more than two hundred (200) gallons;
  - (E) The setback requirements outlined in Table 1 (contained in Section T-112) for a septic tank can be met;
  - (F) The owner of the property shall record a deed restriction agreeing to be served by public sewer system if at any time a connection becomes legally available within three hundred (300) feet of the property; and available within three hundred (300) feet of the property; and
  - (G) The owner shall provide the Department with:
    - (1.) A copy of a contract with a County licensed septage hauler that shows the tank shall be pumped at regular intervals or as needed to prevent use of greater than seventy-five (75) percent of the tank's capacity. The contents of the tank shall be disposed of at an approved septage receiving facility, in an approved manner; and
    - (2.) A record of pumping dates and amounts pumped shall be maintained by the property owner and made available to the Department upon request.
- (3) **General requirements.**
  - (A) A holding tank does not have to be designed and installed under the inspection and approval of a consultant.
  - (B) No building may be served by more than one (1) holding tank.
  - (C) A single parcel or lot of record may be served by no more than one (1) holding tank.
  - (D) Each tank shall have a minimum liquid capacity of fifteen hundred (1,500) gallons.
  - (E) Holding tanks shall not be used as a method for sewage disposal for creating lots and parcels.
- (4) **Permit requirement.** A Public Health Certificate of Operation shall be obtained prior to the final approval of the permit, accompanied by the appropriate filing fee, and contain all exhibits required by the Department.
- (5) **Installation, construction and monitoring requirements.** All installations shall meet the following:
  - (A) Be located and designed to facilitate visual inspection and removal of contents by pumping;
  - (B) Be equipped with both an audible and visual alarm, placed in a location acceptable to the Department, to indicate when the tank is seventy-five (75) percent full. The audible alarm only may be user cancelable; and
  - (C) Have no overflow vent at an elevation lower than the overflow level of the lowest fixture served.
  - (D) The holding tank construction and installation shall comply with the requirements specified in Section T-060 (5) and (6).
- (6) **Inspections required.** Each holding tank installed under this section, shall be inspected annually. A fee shall be charged.

### T-072: HOLDING TANK REQUIREMENTS

- (1) **General statement.** A holding tank is a watertight container designed to receive and store sewage for disposal at another location.
- (2) **Criteria for approval.** A permit shall be issued for a holding tank on sites that meet all of the following conditions:
  - (A) The site cannot be approved for the installation of a standard system or special design system;
  - (B) No community or area-wide public sewer system is legally and physically available as defined in Section A-018 (1)(E);
  - (C) The tank is intended to serve a small industrial or commercial building, or an occasional event such as a county fair or a rodeo;
  - (D) Unless otherwise approved by the Department, the projected daily sewage flow is not more than two hundred (200) gallons;
  - (E) The setback requirements outlined in Table 1 (contained in Section T-112) for a septic tank can be met;
  - (F) The owner of the property shall record a deed restriction agreeing to be served by public sewer system if at any time a connection becomes legally available within three hundred (300) feet of the property; and
  - (G) The owner shall provide the Department with:
    - (1) A copy of a contract with a County licensed septage hauler that shows the tank shall be pumped at regular intervals or as needed to prevent use of greater than seventy-five (75) percent of the tank's capacity. The contents of the tank shall be disposed of at an approved septage receiving facility, in an approved manner; and
    - (2) A record of pumping dates and amounts pumped shall be maintained by the property owner and made available to the Department upon request.
- (3) **General requirements.**
  - (A) A holding tank does not have to be designed and installed under the inspection and approval of a consultant.
  - (B) No building may be served by more than one (1) holding tank.
  - (C) A single parcel or lot of record may be served by no more than one (1) holding tank.
  - (D) Each tank shall have a minimum liquid capacity of fifteen hundred (1,500) gallons and conform with T-092.
  - (E) Holding tanks shall not be used as a method for sewage disposal for creating lots and parcels.
- (4) **Permit requirement.** A Public Health Certificate of Operation shall be obtained prior to the final approval of the permit, accompanied by the appropriate filing fee, and contain all exhibits required by the Department.
- (5) **Installation, construction and monitoring requirements.** All installations shall meet the following:
  - (A) Be located and designed to facilitate visual inspection and removal of contents by pumping;
  - (B) Be equipped with both an audible and visual alarm, placed in a location acceptable to the Department, to indicate when the tank is seventy-five (75) percent full. The audible alarm only may be user cancelable; and lowest fixture served.
  - (C) Have no overflow vent at an elevation lower than the overflow level of the lowest fixture served.
  - (D) The holding tank construction and installation shall comply with the requirements specified in Section T-060 (5) and (6).
- (6) **Inspections required.** Each holding tank installed under this section, shall be inspected annually. A fee shall be charged.



## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

~~edits/deletions highlighted~~

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-074: VAULT PRIVY REQUIREMENTS

- (1) **General statement.** A vault privy is a structure used for disposal of human waste without the aid of water. It consists of a shelter built above a subsurface vault into which human waste falls. The vault privy has no water connection.
- (2) **Criteria for approval.** Vault privies may be allowed for temporary or limited use areas, where primitive type picnic grounds, campsites, camps and recreation areas are to be maintained, when a septic tank and leachfield are not practicable as determined by the Department. The separation distances specified in Table 1 (contained in Section T-112) shall be met. Vault privies shall not be used for seasonal dwellings, commercial facilities, or single family dwellings.  
  
~~Vault privies may also be utilized on a temporary basis and for a maximum of two years where used during the construction of any building for which valid building and sewage permits exist.~~  
  
As a condition of approval, monitoring to ensure protection of water quality may be required. A construction permit shall be obtained for a vault privy as required by this Chapter.
- (3) **Materials and construction requirements.** Vault privy (shelters and facilities) shall be constructed in accordance with the minimum requirements contained in Section T-106.
- (4) **Maintenance requirement.** Vault privies shall be maintained to prevent health hazards and pollution of public waters. The privy vault shall not be allowed to become filled with excreta to a point within two (2) feet of the ground surface. The excreta in the vault shall be pumped out by a licensed septage pumper as necessary to fulfill these requirements. The property owner or septage pumper shall submit the septage pumper's receipt to the Department within thirty (30) days of it's pumping. The privy shall be maintained in a sanitary condition and in good repair.
- (5) **General requirement.** No water-carried sewage shall be placed in vault privies. Contents of vault privies shall not be discharged into storm sewers, on the surface of the ground or into public waters.

### T-074: VAULT PRIVY REQUIREMENTS

- (1) **General statement.** A vault privy is a structure used for disposal of human waste without the aid of water. It consists of a shelter built above a subsurface vault into which human waste falls. The vault privy has no water connection.
- (2) **Criteria for approval.** Vault privies may be allowed for temporary or limited use areas, where primitive type picnic grounds, campsites, camps and recreation areas are to be maintained, when a septic tank and leachfield are not practicable as determined by the Department. The separation distances specified in Table 1 (contained in Section T-112) shall be met. Vault privies shall not be used for seasonal dwellings, commercial facilities, or single family dwellings.  
  
As a condition of approval, monitoring to ensure protection of water quality may be required. A construction permit shall be obtained for a vault privy as required by this Chapter.
- (3) **Materials and construction requirements.** Vault privy (shelters and facilities) shall be constructed in accordance with the minimum requirements contained in Section T-106.
- (4) **Maintenance requirement.** Vault privies shall be maintained to prevent health hazards and pollution of public waters. The privy vault shall not be allowed to become filled with excreta to a point within two (2) feet of the ground surface. The excreta in the vault shall be pumped out by a licensed septage pumper as necessary to fulfill these requirements. The property owner or septage pumper shall submit the septage pumper's receipt to the Department within thirty (30) days of its pumping. The privy shall be maintained in a sanitary condition and in good repair.
- (5) **General requirement.** No water-carried sewage shall be placed in vault privies. Contents of vault privies shall not be discharged into storm sewers, on the surface of the ground or into public waters.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### ~~T-076: PIT PRIVY REQUIREMENTS~~

- ~~(1) General statement. A pit privy is a structure used for disposal of human waste into the soil without the aid of water. It consists of a shelter built above a subsurface pit into which human waste falls. The pit privy has no water connection.~~
- ~~(2) Criteria for approval.~~
- ~~(A) Pit privies shall not be permitted for any single family residence, nor for any other new construction, except as provided in this Section. A construction permit shall be obtained as required in Section A-016.~~
- ~~(B) Pit privies may be permitted on a case-by-case basis in accordance with the variance process described in Section A-030, for primitive type campgrounds where the Department has determined that a septic tank and leachfield are not practicable and vault privies would be inaccessible for service. As a condition of approval, monitoring to ensure protection of water quality may be required.~~
- ~~(C) A complete site evaluation must be conducted to determine the suitability of the site for a pit privy.~~
- ~~(D) The effective soil depth shall extend a minimum of 10 feet below the bottom of the pit before encountering any bedrock, fractured rock, groundwater, or conditions associated with saturation. A pit privy shall be constructed no deeper than the soil testing results allow.~~
- ~~(3) Setback Requirements. The separation distances to a pit privy are specified in Table 3.~~
- ~~(4) Materials and construction requirements. Pit privy (shelters and facilities) shall be constructed in accordance with the minimum requirements contained in Section T-108.~~
- ~~(5) Maintenance requirement. Pit privies shall be maintained to prevent health hazards and pollution of public waters. The pit shall not be allowed to become filled with excreta to a point within two (2) feet of the ground surface. The privy shall be maintained in a sanitary condition and in good repair.~~
- ~~(6) General requirement. No water-carried sewage shall be placed in pit privies. Contents of pit privies shall only be removed by a licensed septage hauler.~~

~~(7)~~

~~Table 3~~

<del>Distance Required From ↓</del>	<del>Minimum Horizontal Distance in Feet To A Pit Privy ↓</del>
<del>Public Well</del>	<del>200</del>
<del>Private Well</del>	<del>150</del>
<del>Stream, Body of Water or Ditch (as measured from the high water mark<sup>1</sup>)</del>	<del>150</del>
<del>Intermittent Stream</del>	<del>50</del>
<del>Water Pipe</del>	<del>10</del>
<del>Property Line</del>	<del>200</del>
<del>Property Line (when domestic water on adjacent parcel is provided by public water system)</del>	<del>200</del>
<del>Cut or fill bank (where "h" = height of cut or fill)</del>	<del>4h, 50' maximum</del>

~~1. Setbacks shall be measured from the edge of the 10-year historic high water level (western county) or the 100-year historic high water level (eastern county). In no event shall a system be placed within a 100-year flood plain or within an area of special flood hazard as defined in the Flood Plain Management Regulations contained in Chapter XII of the Nevada County Land Use and Development Code. For western county, where a flood plain is indicated on a FEMA map, the 100-year setback shall be utilized unless a 10-year flood plain has been delineated by a drainage study or other approved methods.~~

~~\*\*ENTIRE T-076 SECTION REMOVED\*\*~~

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**Edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

<p><b>T-078: PORTABLE TOILET REQUIREMENTS</b></p> <p>(1) <b>General statement.</b> A portable toilet is any self-contained chemical toilet facility that is housed within a portable toilet shelter. The portable toilet has no direct water connection.</p> <p>(2) <b>Criteria for approval.</b> Portable toilets may be approved for temporary or limited use areas, such as construction sites (for use by on-site employees), recreation parks, camp sites, and special events, provided that the separation distances in Table 1 (for septic tanks) can be met. Portable toilets shall not be allowed for seasonal dwellings, commercial facilities or single family dwellings.</p> <p>(3) <b>Materials and construction requirements.</b> Portable toilet (shelters and facilities) shall be constructed in accordance with the minimum requirements contained in Section T-106.</p> <p>(4) <b>Maintenance requirement.</b> Portable toilets shall be maintained to prevent health hazards and pollution of public waters.</p> <p>(5) <b>General requirement.</b> No water-carried sewage shall be placed in portable toilets. Contents of portable toilets shall not be discharged into storm sewers, on the surface of the ground or into public waters.</p>	<p><b>T-078: PORTABLE TOILET REQUIREMENTS</b></p> <p>(1) <b>General statement.</b> A portable toilet is any self-contained chemical toilet facility that is housed within a portable toilet shelter. The portable toilet has no direct water connection.</p> <p>(2) <b>Criteria for approval.</b> Portable toilets may be approved for temporary or limited use areas, such as construction sites (for use by on-site employees), recreation parks, camp sites, and special events, provided that the separation distances in Table 1 (for septic tanks) can be met. Portable toilets shall not be allowed for seasonal dwellings, commercial facilities or single family dwellings.</p> <p>(3) <b>Materials and construction requirements.</b> Portable toilet (shelters and facilities) shall be constructed in accordance with the minimum requirements contained in Section T-106.</p> <p>(4) <b>Maintenance requirement.</b> Portable toilets shall be maintained to prevent health hazards and pollution of public waters.</p> <p>(5) <b>General requirement.</b> No water-carried sewage shall be placed in portable toilets. Contents of portable toilets shall not be discharged into storm sewers, on the surface of the ground or into public waters.</p>
<p><b>T-080: WATERLESS TOILET REQUIREMENTS</b></p> <p>Waterless toilets must meet the requirements of the Nevada County Land Use and Development Code Chapter L-VI, Article 5.</p>	<p><b>T-080: WATERLESS TOILET REQUIREMENTS</b></p> <p>Waterless toilets must meet the requirements of the Nevada County Land Use and Development Code Chapter L-VI, Article 5.</p>
<p><b>T-082: GRAYWATER SYSTEM REQUIREMENTS</b></p> <p>Graywater systems shall be designed, constructed and installed in accordance with the most current California Graywater Standards adopted by the State of California.</p>	<p><b>T-082: GRAYWATER SYSTEM REQUIREMENTS</b></p> <p>Graywater systems shall be designed, constructed and installed in accordance with the most current California Graywater Standards adopted by the State of California.</p>
<p><del><b>T-084: KITCHEN WASTE DISPOSAL SYSTEM REQUIREMENTS</b></del></p> <p><del>(1) A kitchen waste disposal system is a liquid waste disposal system for the safe disposal of the liquid portion of kitchen or dishwashing wastewater. It consists of a tank and disposal field similar in design and configuration to a graywater system. A kitchen waste disposal system is required where no standard, special design, or experimental sewage disposal system is available to dispose of these wastes.</del></p> <p><del>(2) The kitchen waste disposal system shall not be connected in any manner to a graywater disposal system. All kitchen and dishwashing solid waste material shall be screened and removed to prevent its introduction into the tank and disposal field.</del></p> <p><del>(3) All kitchen waste disposal systems shall comply with regulations and standards of the State Graywater Law and the Uniform Plumbing Code, most recently County adopted edition. When there is a conflict between these two documents the State Graywater Law shall supersede.</del></p> <p><del>(4) The use of a garbage grinder disposal unit with a kitchen waste disposal system is prohibited.</del></p> <p><b>**ENTIRE T-084 SECTION REMOVED**</b></p>	

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### ~~T-086: EXPERIMENTAL SYSTEM REQUIREMENTS~~

~~As of January 08, 2010, Environmental Health is no longer accepting applications for experimental systems. Please see Section T-088 for Supplemental Treatment Systems~~

~~(1) General statement. Innovative technologies to standard and special design systems are needed in areas planned for rural or low density development. It is the policy of the Department to pursue a program of experimentation for the purpose of obtaining sufficient data for the development of special design systems, which may benefit significant numbers of people within Nevada County.~~

~~Note: The use of such systems shall be in accordance with the current Memorandum of Agreement on the utilization of special design/experimental systems between the State Regional Water Quality Control Board and Nevada County.~~

~~(2) Criteria for approval. Sites may be considered for experimental system permits where:~~

~~(A) Soils, climate, groundwater, and topographical conditions appear to be supportive of a properly functioning experimental system.~~

~~(B) A specific special design system, acceptable to the Department, is available in the event of system failure.~~

~~(C) A single family dwelling or small commercial establishment under one ownership shall be served.~~

~~(D) The system shall be used on a continuous basis during the life of the test project.~~

~~(E) Resources for monitoring, sample collection, and laboratory testing are available.~~

~~(F) The owner records with the Nevada County Recorder's office, a notice of restrictive covenant that notifies prospective property purchasers of the existence of an experimental system. Included in this restrictive covenant, the owner shall state that:~~

~~(1.) The owner agrees to hold the County of Nevada, its officers and employees harmless of any and all loss and damage caused by defective design, installation or operation of the proposed system; and~~

~~(2.) In the event of a failing system which cannot be repaired or which fails to meet the intended objective of the design, the owner shall either:~~

~~(a) connect the structure served by the wastewater disposal system to a sewer;~~

~~(b) replace the experimental system with the approved special design, standard system, or waterless toilet, as specified in the permit;~~

~~(c) as a last resort, discontinue use of the site.~~

~~(3.) A statement granting to the Department legal and physical entry onto the property for purposes of inspection, monitoring and necessary enforcement action.~~

~~(G) Installation of the system does not conflict with other agencies' requirements.~~

~~(H) The California Regional Water Quality Control Board approves the use of the proposed experimental system; and~~

~~(I) The responsibility of ownership, operation, maintenance and monitoring can be assured.~~

~~(3) Permit required. No person shall construct an experimental system without first obtaining a permit from the Department.~~

~~(A) Preliminary project review. A proposal shall be submitted to the Department with an application provided by the Department and the appropriate fee attached. The proposal shall include at a minimum:~~

~~(1.) A description of the hypothesis or intended objective.~~

~~(2.) Data that support the hypothesis or intended objective as being reasonable and attainable. The research cited shall be scientifically valid, and prove or support the theory. The information shall be confined to technical aspects including background information, engineering data, performance results, and field data. Supporting data should include performance information concerning microbiological and chemical constituents of the effluent.~~

~~(B) Permit application procedure. Application for experimental system permits shall be made on forms approved by the Department. The application shall be complete, signed by the owner or owner's authorized representative and accompanied by the required fee.~~

~~(1.) Construction/design plan. A consultant shall design the system, and certify its installation unless otherwise approved by the Department. At a minimum, the design shall:~~

~~(a) Specify the method and manner of system installation, operation, and maintenance.~~

~~(b) Establish inspection schedule and system components to be inspected.~~

~~(c) Identify the testing, observations and monitoring to be done that address the hypothesis or intended objective, e.g., methodology, parameters, frequency, duration. Specify the method, manner and duration of the testing and monitoring program.~~

~~(d) Specify material and construction specifications.~~

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

~~(e) Provide any other information requested by the Department.~~

~~(4) Construction permit conditions.~~

~~(A) Construction permits are non-transferable.~~

~~(B) Construction permits are valid for a period of one (1) year from date of issuance.~~

~~(5) Financial assurances. Where an experimental system is proposed to replace an existing system that has failed, creating a health hazard, the Department, as a condition of its approval, may require financial assurances in a form and amount deemed adequate by the Department to assure that measures specified by the Department to preclude any public health hazard are implemented and to provide security for reimbursement of any damages to private or public property.~~

~~(6) Prohibitions.~~

~~(A) Experimental systems shall not be used for the creation of new lots and parcels.~~

~~(B) Direct discharge to ground surface or groundwater is prohibited.~~

~~(7) Inspection of installed system.~~

~~(A) The Department shall be notified upon completion of each construction phase required by the permit.~~

~~(B) The Department may inspect the construction to determine compliance with permit conditions and requirements.~~

~~(C) A Certificate of Satisfactory Completion shall be issued upon completion of the system installation and compliance with all permit conditions.~~

~~(8) Repair or replacement of the system. If the system fails to meet the design criteria, a repair or replacement of the system shall be made, consistent with the permit requirements. The owner shall implement immediate measures specified by the Department to preclude any public health hazard.~~

~~(9) System monitoring. The system shall be monitored in accordance with the schedule contained in the permit. All costs for monitoring and reporting shall be the responsibility of the owner.~~

~~(10) Adoption of experimental systems. As sufficient experience and data are obtained, accepted experimental design standards may be established and incorporated within these regulations as a special design to allow more widespread usage. A minimum of 2-4 years of successful operation of a sufficient number of experimental systems are required. Reliability and efficacy must be demonstrated prior to adopting experimental systems as special design systems. Determinations and recommendations regarding standards for routine application of experimental systems will be made by the Department to the Board of Supervisors and with input from the:~~

~~(A) Regional Water Quality Control Boards~~

~~(B) Sewage Disposal Technical Advisory Group~~

~~(C) Consultant community~~

~~(D) General public~~

~~(E) External technical consultants as appropriate~~

~~Whenever a type of experimental system is incorporated herein as a special design system, any existing permitted experimental systems of that same type may thereafter apply to be permitted as a special design system under the new special design standards.~~

**\*\*ENTIRE T-086 SECTION REMOVED\*\***

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

~~Edits/deletions highlighted~~

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

~~T-088: RESERVED FOR FUTURE USE~~

**T-088: SUPPLEMENTAL TREATMENT SYSTEM REQUIREMENTS**

- (1) General Statement.** Supplemental Treatment System is any On-Site Wastewater Treatment Systems (OWTS) or component of an OWTS, except a septic tank or dosing tank, which performs additional wastewater treatment prior to discharge of effluent. Supplemental treatment may be required where the site is not suitable for a conventional system. This type of system is a special design to mitigate the limitations associated with shallow effective soil depth, soils with rapid permeability or very slow permeability soils. The SDTAG shall review all proposed supplemental systems and make recommendations to the department.
- (2) Criteria for Approval.** Unless otherwise approved by the Department, the Supplemental Treatment System shall conform with the following requirements:
- (A)** Produce effluent that successfully meets the performance requirements established by ANSI/NSF Standard-40 for EPA Class I effluent.
  - (B)** All supplemental treatment systems must meet or exceed American National Standards Institute/ National Sanitation Foundation Standard-40 (ANSI/NSF-40), or equivalent.
  - (C)** Approved components may not be used independently. System components may be used as part of the overall wastewater treatment system as tested and approved by ANSI/NSF.
  - (D)** Only persons authorized by the supplemental treatment system manufacturer may install a supplemental treatment system. All supplemental treatment systems must be designed by certified designers and installed by certified installers. Specific training must be offered to all interested parties for the installation, monitoring, and maintenance of the type of system utilized. Proof of the specified training by way of certification or letter from an approved trainer is required.
  - (E)** Supplemental treatment systems must be equipped with telemetric alarms that notify the owner and the Certified System Service Provider (CSSP) in the event of system malfunction, if applicable.
  - (F)** All owners of supplemental treatment systems must maintain current Operating Permits and be inspected and monitored by Certified System Service Provider (CSSP) at a frequency recommended by the manufacturer not to exceed two (2) years.
  - (G)** Manufacturers of supplemental systems must provide homeowners with Operation and Maintenance Manuals.
  - (H)** Unless specified, Supplemental Treatment Systems may be installed in \*\*Soil Groups A, B, C, D, and E (as identified in Section T-052 (4)), with percolation rates of 1-240 minutes per inch.
  - (I)** The proposed disposal area and replacement area shall demonstrate a minimum of two (2) feet of effective soil depth beneath the disposal trench bottom.
- (3) Required inspections.** Inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14). Unless specifically waived, the following Environmental Health inspections are required:
- (A)** Preconstruction meeting including layout including the designer, installer and Environmental Health Staff.
  - (B)** Water tight testing of all components prior to backfill.
  - (C)** Squirt/flow test of unit, if applicable.
  - (D)** Squirt/flow test of pressure dosed and/or drip tubing disposal systems, if applicable.
  - (E)** Entire system prior to cover.
  - (F)** CSSP and designer for system start up prior to designer certification.
  - (G)** Final cover and erosion control.
  - (H)** Any other inspection as listed on the permit.
  - (I)** The above inspections may be combined.
- (4) Maintenance and Monitoring**
- (A)** System monitoring and maintenance in conformance with Section A-026
  - (B)** Manufacturers of proprietary systems must provide a list of qualified service providers to the Department on annual basis.
  - (C)** All supplemental treatment systems shall be continuously monitored by integrated telemetry, if applicable.
  - (D)** All supplemental treatment systems must be maintained and monitored by a CSSP at all times for the life of the system.
  - (E)** Property owners shall maintain an annual operating permit with Environmental Health.
  - (F)** As part of the supplemental treatment system approval process, the Manufacturer shall be required to provide the Department with system Maintenance and Monitoring procedures.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-089: AT-GRADE SYSTEMS

- (1) **General Statement.** An At-Grade system combines a treatment component and pressure distribution to a sewage absorption area (leach field/bed) constructed directly on the ground surface. This type of system shall conform to the 'Wisconsin At-Grade Absorption System Siting Design & Construction Manual' by James C Converse, E Jerry Tyler and James O. Peterson (Manual) dated 1990, and At-Grade Systems for On-Site Wastewater Treatment and Dispersal' by James Converse dated January, 1999.
- (2) **Soils Testing.** Site testing shall be conducted during defined "Wet Weather Test" (WWT) periods. A minimum of 4 mantles and 6 percolation tests will be required. Pre-soaking for percolation tests shall be for a minimum of a 48 hour period. Auto siphon percolation tests equipment is highly recommended. The percolation test holes shall be located throughout the proposed leachfield/bed area. The percolation tests test holes depths shall be located in the most restrictive soil horizon, within 2 feet below the bottom of the system. Test consultant shall notify the department of scheduled percolation testing.
  - (A) **Site Evaluation Report** for this type system should address:
    - (1) The expected horizontal and/or vertical movement of effluent through the soil profile.
    - (2) Describe the topographical position of the proposed sewage disposal area with respect to the type of slope and system layout.
    - (3) Evaluate for soil banding, especially in sand textured soils.
    - (4) Evaluate profile for layers that may restrict effluent flow, and determine the limiting conditions such as bedrock, high groundwater level, soil permeability and texture with respect to the soils ability to treat effluent.
    - (5) Estimate and discuss the permeability & effectiveness of EACH soil horizon to a minimum of 30 inches below the system or to the limiting soil horizon. The discussion of each horizon should include the soil morphology (texture, structure & consistence) and verifying the permeability of each horizon with a percolation test. Because of the potential for variability of soil horizon depths the designer and/or consultant should also verify and state that there 'measured percolation zone', and rate is located in the specific horizon(s) that are described.
    - (6) The final design soil loading rate shall be discussed and recommended in the SER. This rate should be determined by the most limiting horizon beneath the bottom of the system up to a distance of 30 inches. If needed, this rate should be adjusted using a Long Term Acceptance Rate (LTAR) or other site or soil constraints.
    - (7) If a seasonal or year round groundwater table, and/or redoxymorphic conditions are present within 24 inches below the bottom of the system, then a ground water mounding analysis is recommended.
- (3) **Criteria for Approval**
  - (A) At-Grade Designs shall be restricted to sites that have percolation test averages between 1-120mpi only.
  - (B) A maximum slope of ten percent (10%) will be permitted.
  - (C) Design shall use maximum application rates of 0.8.
- (4) **Construction:**
  - (A) Installation of the At-Grade System shall only be by a licensed contractor holding one of the following licenses: A, B, C36 or C42.
  - (B) Only installers that are approved may prepare and install an At-Grade System.
  - (C) Systems shall only be constructed during the dry season and only with the design consultant's approval following a pre-construction site meeting. Construction is prohibited from October 15 – April 15 and during WWT.
  - (D) The surface soil shall be tilled, as described in the Manual, to a maximum depth not to exceed six (6) inches.
  - (E) The contractor shall submit a sieve analysis of the final cover to the Department. The final cover shall be loamy-sand to sandy-loam. The design consultant must inspect and approve the cover material prior to placement.
  - (F) The design consultant shall provide the contractor with a construction schedule (order of events).

### T-090: DRIP DISPERSAL SYSTEMS (DDS)

- (1) **General Statement.** A Drip Dispersal system combines a treatment component with a pressurized network of approved flexible tubing, with in-line emitters, placed at a shallow elevation below soil grade.
- (2) **Site Criteria**

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

- (A) Vertical Setbacks: Minimum depth to seasonal high ground water, bedrock or an impermeable soil layer shall be 2 feet below the dripline depth. Percolation rates for subsurface drip dispersal systems shall be within the range of 1 to 240 minutes per inch (MPI), as determined by testing the percolation rate of the most restrictive soil horizon within 24- inches of the proposed drip line depth.
- (3) **Design.** Minimum absorption area, and system layout shall be calculated using expected use and flows, together with the estimated infiltration rate into the soil.
- (A) Drip systems to be installed on slopes less than 20 percent may use non-pressure compensating drip emitters with pressure regulators.
- (B) Drip systems on slopes between 20 percent and 30 percent shall use pressure compensating tubing only. Drip systems have uniform timed dosing of effluent, and provide an adequate dose volume to pressurize each zone.
- (C) Design consultant shall submit a completed copy of worksheet (manufacturer-standardized) for the dripline design.
- (D) Design (report) shall include specific installation instructions, including the following:
- (i) Material specifications
  - (ii) Construction Methods: include detailed instructions for site/soil preparation & installation.
  - (iii) An inspection schedule listing critical control points.
  - (iv) Control panel programming.
  - (v) Component testing: Identify components to be tested and methods to be used.
  - (vi) Final grading/landscaping requirements
- (Construction: Installation of the DDS shall only be by a Licensed Contractor holding one of the following licenses: A, B, C36 or C42).*
- (4) **Materials/Components**
- (A) Filters, disk or vortex screen type (as recommended, and warranted by manufacturers) shall be specified design consultant, and sized to operate at a flow rate at least equal to the maximum design discharge rate of the system, including backwash of filter – at minimum specific velocity 0.5 ft/sec (Filters must be accessible for inspection and servicing.)
- (B) Air/Vacuum Relief Valve(s) shall be installed at the high point of each zone of distribution, and in a protected and accessible manner (above-grade, in a valve box).
- (C) Supply and return manifolds shall be configured efficiently, to distribute effluent to dripline, and collect return flow, and filter backwash and debris back to treatment unit.
- (D) Flow meters (recommended), or other means to monitor flow on return and supply line, at accessible locations for reading and servicing (all flow monitoring devices to be designed for use with wastewater).
- (E) Controller capable of timed dosing is required for all systems.
- (F) Approved Drip Dispersal tubing incorporates USDA-approved "root growth inhibitor" – during manufacturing – which prevents root intrusion into emitters.
- (G) Valves must be readily accessible for inspection and/or service (such as in a valve box with access to grade).
- (H) A ground cover (turf or other appropriate landscaping) must be planted over the dripfield after installation to prevent erosion of the dripfield area.
- (5) **Dripline Placement**
- (A) Drip tubing is to be designed and installed as level as possible, parallel to contours on sloped sites, and with prevention of surface drainage along driplines or manifolds. Designers must specify the filter that is recommended by the manufacturer of the dripline.
- (B) Minimum installation is 6 inches below grade in undisturbed soil. Ideal placement of emitter tubing shall be at 2-foot centers, with 2-foot emitter spacing yielding an emitter within a ~4 sq. ft. area.
- (C) Maximum length of each run of dripline must be in accordance with manufacturer's specifications to insure equal distribution.
- (6) **Dripline**
- (A) Must be installed as level as possible and parallel to contours on sloped sites.



## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

- (B) Minimum installation depth is 6 inches beneath grade (in moderate climates). Where frost is a concern, recommended minimum installed depth is 8 to 10 inches. Dripline must be installed in original, undisturbed soil.
- (C) Unless there are special circumstances identified at time of the OSSE and application, emitter tubing shall be placed on 2-foot centers with 2-foot emitter spacing so that each emitter supplies a 4 sq. ft. area.
- (D) Maximum length of each run of dripline must be in accordance with manufacturer's specifications to insure equal distribution.
- (E) DDS must be designed and installed to prevent low-level drainage of effluent along dripline or manifolds.

### (7) FLUSHING

- (A) All DDS must include means to backwash filters and flush drip line/manifolds with minimum velocities at 0.5 ft/sec or greater.
- (B) Automated or manual filter backwash and dripline flushing is required for all drip systems.
- (C) Filter backwash / line flush debris must be returned to processing septic tank.

### (8) INSTALLATION. Design of DDS must include specific installation instructions including the following:

- (A) Material specifications
- (B) Construction Methods: include detailed instructions for site/soil preparation & installation.
- (C) An inspection schedule listing critical control points.
- (D) Control panel programming.
- (E) Component testing: Identify components to be tested & methods to be used.
- (F) Construction: Installation of the DDS shall only be by a Licensed Contractor holding one of the following licenses: A, B, C36 or C42.
- (G) Final grading/landscaping requirements

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### T-090: LARGE SYSTEM REQUIREMENTS

- (1) **General statement.** A large system is a system with a projected daily sewage flow greater than two thousand five hundred (2,500) gallons from one residential or commercial facility.
- (2) **Permit application procedures.** Application shall be made to the Department on forms provided by the Department. Each application must be completed in full, signed by the applicant, and accompanied by the following:
  - (A) The appropriate filing fee;
  - (B) A narrative describing the details of the proposed project;
  - (C) A site approval report,
  - (D) A construction/design plan prepared by a consultant. Requirements of Section T-054 shall apply to large system plans.
  - (E) A written assessment of the impact of the proposed system upon the quality of public waters and public health, (a groundwater mounding analysis and/or a nitrate study).
- (3) **Special design requirements.** Unless otherwise authorized by the Department, designs for large systems shall at a minimum meet all of the following:
  - (A) Large systems shall be designed utilizing a pressurized distribution system in accordance with Section T-058;
  - (B) The disposal fields shall be divided into relatively small, approximately equal sized units which are dosed alternately;
  - (C) Effluent distribution shall alternate between the disposal area units;
  - (D) The system shall have at least two (2) alternating pumps;
  - (E) Unless otherwise specified, septic tank design, materials, and construction shall conform to the provisions of Section T-092. The Department shall review proposed tank designs and may impose certain standards to carry out the purposes of these regulations; and
  - (F) The project shall comply with all other agency requirements.
- (4) **Installation requirements.** Construction shall be in conformance with the permit.
- (5) **Inspection requirements.** Unless otherwise indicated, inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).

### T-091: LARGE SYSTEM REQUIREMENTS

- (1) **General statement.** A large system is a system with a projected daily sewage flow of two thousand five hundred (2,500) gallons and not to exceed ten thousand (10,000) gallons, from one residential or commercial facility.
- (2) **Permit application procedures.** Application shall be made to the Department on forms provided by the Department. Each application must be completed in full, signed by the applicant, and accompanied by the following:
  - (A) The appropriate filing fee;
  - (B) A narrative describing the details of the proposed project;
  - (C) A site approval report;
  - (D) A construction/design plan prepared by a consultant. Requirements of Section T-054 shall apply to large system plans;
  - (E) A written assessment of the impact of the proposed system upon the quality of public waters and public health, (a groundwater mounding analysis and/or a nitrate study).
- (3) **Special design requirements.** Unless otherwise authorized by the Department, designs for large systems shall at a minimum meet all of the following:
  - (A) Large systems shall be designed utilizing a pressurized distribution system in accordance with Section T-058;
  - (B) The disposal fields shall be divided into relatively small, approximately equal sized units which are dosed alternately;
  - (C) Effluent distribution shall alternate between the disposal area units;
  - (D) The system shall have at least two (2) alternating pumps;
  - (E) Unless otherwise specified, septic tank design, materials, and construction shall conform to the provisions of Section T-092. The Department shall review proposed tank designs and may impose certain standards to carry out the purposes of these regulations; and
  - (F) The project shall comply with all other agency requirements.
- (4) **Installation requirements.** Construction shall be in conformance with the permit.
- (5) **Inspection requirements.** Unless otherwise indicated, inspections and issuance of a Certificate of Satisfactory Completion shall be in conformance with Section T-052 (14).

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

### T-092: SEPTIC TANK MATERIALS AND CONSTRUCTION

(see Diagram 4)

- (1) **General statement.** The requirements of this section shall apply to all septic tanks manufactured for use in Nevada County unless otherwise indicated in these regulations.
- (2) **Materials.** Septic tanks shall be precast reinforced concrete or other material approved by the Department. Wood tanks and metal tanks are prohibited.  
**Note:** Cast-in-place and fiberglass septic tanks may be considered on a case-by-case basis. These septic tank designs shall be reviewed by the Department, and may require a permit from the Building Department.
- (3) **Tank construction/design specifications.**
- (A) Precast concrete tanks shall have a minimum wall, compartment and bottom thickness of two and one-half (2-1/2) inches, and shall be adequately reinforced. The top shall be at least four (4) inches thick.
  - (B) Septic tanks shall have a minimum of two compartments. Installation of multiple single compartment tanks in a series is not acceptable, unless approved by Department prior to installation. The first compartment shall have a liquid capacity of two-thirds (2/3) of the total required liquid capacity, as measured from the invert of the outlet fitting.
  - (C) Each compartment shall have access provided by a manhole having not less than eighteen (18) inches across its shortest dimension unless otherwise approved by the Department.
  - (D) Each compartment shall be provided with a concrete (or other material approved by the Department) watertight riser, extending to the ground surface or above, with a minimum inside horizontal measurement equal to or greater than the access manhole. All joints shall be properly sealed with a sealant and/or an interlocking mechanism approved by the Department. Cement grout sealing alone is not an acceptable method of sealing joints. Surface water shall be diverted away from the riser cover by creating a sloping surface away from the riser, or extending the riser three (3) inches above ground surface. The cover shall be securely fastened with stainless steel or other corrosion resistant fasteners to make the riser vandal, tamper, and child resistant. No cover shall exceed seventy-five (75) pounds.
  - (E) No riser shall have an inside horizontal dimension of less than twenty-four (24) inches. The liquid depth of any compartment shall be at least thirty (30) inches. Liquid depths greater than seventy-two (72) inches shall not be considered in determining the working liquid capacity.
  - (F) Septic tanks shall be watertight. They shall be built such that any construction joints will be above the effluent level. Tanks with construction joints below the effluent level will require a field inspection to verify that they are watertight.
  - (G) Septic tanks shall be capable of supporting an earth load of at least three hundred (300) pounds per square foot when the maximum coverage does not exceed three (3) feet. Tanks installed with more than three (3) feet of cover shall be reinforced to support the additional load. Tanks, risers, and riser covers installed beneath paved surfaces subject to vehicular traffic (e.g., driveways and vehicle turnarounds) shall be engineered to support the additional load.
  - (H) At least ten (10) percent of the inside volume of the tank shall be above liquid level to provide scum storage.
  - (I) A corrosion-resistant effluent filter approved by the Department shall be provided on the outlet tee.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-092: SEPTIC TANK MATERIALS AND CONSTRUCTION

- (1) **General statement.** The requirements of this section shall apply to all septic tanks manufactured for use in Nevada County unless otherwise indicated in these regulations.
- (2) **Materials.** Septic tanks shall be precast reinforced concrete or other material approved by the Department. Wood tanks and metal tanks are prohibited.  
**Note:** Fiberglass septic tanks and other department approved materials may be considered on a case-by-case basis. These septic tank designs shall be reviewed by the Department, and may require a permit from the Building Department.
- (3) **Tank construction/design specifications.**
- (A) Precast concrete tanks shall have a minimum wall, compartment and bottom thickness of two and one-half (2-1/2) inches, and shall be adequately reinforced. The top shall be at least four (4) inches thick.
  - (B) Septic tanks shall have a minimum of two compartments. Installation of multiple single compartment tanks in a series is not acceptable, unless approved by Department prior to installation. The first compartment shall have a liquid capacity of two-thirds (2/3) of the total required liquid capacity, as measured from the invert of the outlet fitting.
  - (C) Each compartment shall have access provided by a manhole having not less than eighteen (18) inches across its shortest dimension unless otherwise approved by the Department.
  - (D) Each compartment shall be provided with a concrete (or other material approved by the Department) watertight riser, extending to the ground surface or above, with a minimum inside horizontal measurement equal to or greater than the access manhole. Inlet and outlet pipes shall pass through a cast-in-place rubber boot unless alternate design is provided by designer. All joints shall be properly sealed with a sealant and/or an interlocking mechanism approved by the Department. Cement grout sealing alone is not an acceptable method of sealing joints. Surface water shall be diverted away from the riser cover by creating a sloping surface away from the riser, The cover shall be securely fastened with stainless steel or other corrosion resistant fasteners to make the riser vandal, tamper, and child resistant. No cover shall exceed seventy-five (75) pounds.
  - (E) No riser shall have an inside horizontal dimension of less than twenty-four (24) inches. The liquid depth of any compartment shall be at least thirty (30) inches. Liquid depths greater than seventy-two (72) inches shall not be considered in determining the working liquid capacity.
  - (F) Septic tanks shall be watertight. They shall be built such that any construction joints will be above the effluent level. Tanks with construction joints below the effluent level will require a field inspection to verify that they are watertight.
  - (G) Septic tanks shall be capable of supporting an earth load of at least three hundred (300) pounds per square foot when the maximum coverage does not exceed three (3) feet. Tanks installed with more than three (3) feet of cover shall be reinforced to support the additional load. Tanks, risers, and riser covers installed beneath paved surfaces subject to vehicular traffic (e.g., driveways and vehicle turnarounds) shall be engineered to support the additional load.
  - (H) At least ten (10) percent of the inside volume of the tank shall be above liquid level to provide scum storage.
  - (I) A corrosion-resistant effluent filter approved by the Department shall be provided in the outlet tee.
  - (J) **Watertight Testing.**
    - (1) Nevada County On-Site Sewage Disposal Regulations, Section T-092, requires septic tanks with construction joints below the tank liquid level to be field-verified watertight.
      - (a) Watertight testing must be done on septic tanks with construction joints below the tank liquid level using the following methods:
        - Water Fill Test**
        - 1. Tank is installed on a six-inch layer of sand or ¾ inch minus aggregate.
        - 2. All sides of the tank shall be visible for inspection by the Department Inspector or Consultant/Qualified Professional.
        - 3. The tank shall be filled the day prior to the test so that the water level is 1 inch above the riser / tank joint.
        - 4. Water level equalization may take 24 hours. After the equalization, start one-hour test.
- NOTE:** Water Fill Test passes if, "no appreciable drop in level" is observed.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

- (4) **Size.**  
**(A)** Septic tank size shall be determined in accordance with Section T-052 (7) for single family dwellings or Section T-054 for commercial facilities.  
**(B)** The liquid depth of any compartment shall be at least thirty (30) inches. Liquid depths greater than seventy-two (72) inches shall not be considered in determining the working liquid capacity.
- (5) **Fittings.**  
**(A)** The inlet and outlet fittings shall be of Schedule 40 PVC, Schedule 40 ABS, or other materials approved by the Department, with a minimum diameter of three (3) inches.  
**(B)** The distance between the inlet and outlet fittings shall be equal to, or greater than, the liquid depth of the tank.  
**(C)** All fittings shall be secured with a sealant approved by the Department and shall be constructed so as to be watertight. Tank fitting locations shall be properly engineered to ensure the structural integrity of the tank.  
**(D)** The inlet fitting shall be a "sanitary tee" with minimum pipe diameter no less than the connecting building sewer nor less than three (3) inches. It shall extend at least four (4) inches above and twelve (12) inches below the liquid level.  
**(E)** The outlet fitting shall be a "sanitary tee" with minimum pipe diameter no less than the connecting effluent sewer pipe nor less than four (4) inches in order to accommodate an effluent filter. The outlet fitting shall extend at least four (4) inches above liquid level, and below liquid level a distance approximately equal to the flow level through the baffle. The diameter of the vertical leg extending below the liquid level shall not be less in size than the building sewer nor less than four (4) inches.  
**(F)** An effluent filter is required prior to discharge of the effluent to the effluent sewer. It shall be commercially designed and manufactured, intended for effluent filtration, and be readily accessible for inspection and cleaning.  
**(G)** The invert of the inlet fitting shall not be less than one (1) inch and preferably three (3) inches above the invert of the outlet fitting.  
**(H)** Sanitary tees shall be accessible through the manhole access riser.
- (6) **Baffle.** A minimum three (3) inch diameter "tee" fitting or baffle slot (with the same opening area as the fitting) shall be placed in the common compartment (baffle) wall, using the same materials specifications as required for the outlet fitting. The invert of the "tee" fitting or baffle slot shall be located approximately at fifty (50) percent of the liquid depth. There shall be a minimum two-inch vent opening in the baffle above the liquid level. The baffle shall be constructed of the same material as the tank and extend a minimum of four (4) inches above the liquid level.
- (7) **Markings.** All septic tanks shall be marked on the uppermost tank surface with the liquid capacity of the tank and the manufacturers business name.
- (8) **Tank documentation.** For septic tanks proposed for use in Nevada County, or when a revised tank design is proposed the commercial manufacturer of the septic tank shall provide the Department with written documentation that the septic tank design, materials and construction comply with all requirements of these regulations. The manufacturer shall provide a set of plans and specifications prepared by a California registered professional engineer, for each tank design and a set reflecting any subsequent revisions. Plans shall include at a minimum: dimensions, reinforcing, structural calculations, materials specifications and the appropriate fee. The Department may conduct periodic manufacturer's facility inspection to verify compliance with these regulations.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

- (2) Nevada County On-Site Sewage Disposal Regulations, Section T-112, requires septic tanks to pass a watertight test for installations 50-100 feet from a well, surface water or canal.  
**Vacuum Test**  
 1. Tank is installed on a six-inch layer of sand of ¼ inch minus aggregate.  
 2. All sides of the tank shall be visible for inspection.  
 3. A licensed contractor may perform a vacuum test on appropriate tanks and provide written certification.  
*NOTE: Vacuum test passes when three inches of mercury is held constant for three minutes with no drop.*
- (4) **Size.**  
**(A)** Septic tank size shall be determined in accordance with Section T-052 (7) for single family dwellings or Section T-054 for commercial facilities.  
**(B)** The liquid depth of any compartment shall be at least thirty (30) inches. Liquid depths greater than seventy-two (72) inches shall not be considered in determining the working liquid capacity.
- (5) **Fittings.**  
**(A)** The inlet and outlet fittings shall be of Schedule 40 PVC, SDR-35, Schedule 40 ABS, or other materials approved by the Department, with a minimum diameter of three (3) inches.  
**(B)** The distance between the inlet and outlet fittings shall be equal to, or greater than, the liquid depth of the tank.  
**(C)** All fittings shall be secured with a sealant approved by the Department and shall be constructed so as to be watertight. Tank fitting locations shall be properly engineered to ensure the structural integrity of the tank.  
**(D)** The inlet fitting shall be a "sanitary tee" with minimum pipe diameter no less than the connecting building sewer nor less than three (3) inches. It shall extend at least four (4) inches above and twelve (12) inches below the liquid level.  
**(E)** The outlet fitting shall be a "sanitary tee" with minimum pipe diameter no less than the connecting effluent sewer pipe nor less than four (4) inches in order to accommodate an effluent filter. The outlet fitting shall extend at least four (4) inches above liquid level, and below liquid level a distance approximately equal to the flow level through the baffle. The diameter of the vertical leg extending below the liquid level shall not be less in size than the building sewer nor less than four (4) inches.  
**(F)** An effluent filter is required prior to discharge of the effluent to the effluent sewer. It shall be commercially designed and manufactured, intended for effluent filtration, and be readily accessible for inspection and cleaning.  
**(G)** The invert of the inlet fitting shall not be less than one (1) inch and preferably three (3) inches above the invert of the outlet fitting.  
**(H)** Sanitary tees shall be accessible through the manhole access riser.
- (6) **Baffle.** A minimum three (3) inch diameter "tee" fitting or baffle slot (with the same opening area as the fitting) shall be placed in the common compartment (baffle) wall, using the same materials specifications as required for the outlet fitting. The invert of the "tee" fitting or baffle slot shall be located approximately at fifty (50) percent of the liquid depth. There shall be a minimum two-inch vent opening in the baffle above the liquid level. The baffle shall be constructed of the same material as the tank and extend a minimum of four (4) inches above the liquid level.
- (7) **Markings.** All septic tanks shall be marked on the uppermost tank surface with the liquid capacity of the tank and the manufacturers business name.
- (8) **Tank documentation.** For septic tanks proposed for use in Nevada County, or when a revised tank design is proposed the commercial manufacturer of the septic tank shall provide the Department with written documentation that the septic tank design, materials and construction comply with all requirements of these regulations. The manufacturer shall provide a set of plans and specifications prepared by a California registered professional engineer, for each tank design and a set reflecting any subsequent revisions. Plans shall include at a minimum: dimensions, reinforcing, structural calculations, materials specifications and the appropriate fee. The Department may conduct periodic manufacturer's facility inspection to verify compliance with these regulations.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-094: DISTRIBUTION BOX AND CROSSOVER UNIT MATERIALS AND CONSTRUCTION

(see Diagram 5)

- (1) **Distribution Box**
  - (A) Distribution boxes shall be constructed of concrete, fiberglass, or other materials acceptable to the Department.
  - (B) Distribution boxes shall be watertight, and designed to accommodate the necessary distribution laterals and expected flows. The top, walls, and bottom of concrete distribution boxes shall be at least one and one-half (1-1/2) inches thick.
  - (C) The invert elevation of all outlets shall be the same, and shall be at least two (2) inches below the inlet invert, except that for sloping sites, the inverts of the inlet and overflow port shall be at the same elevation. The invert of the header pipe ports leading to the disposal trenches shall be six (6) inches below the inlet invert.
  - (D) Each distribution box (except boxes for sloping sites) shall be provided with a sump extending at least two (2) inches below the invert of the outlets.
  - (E) For initial use of a manufacturer's distribution box design proposed for use in Nevada County, or when a revised box design is proposed for same, the commercial manufacturer of the prefabricated box shall provide the Department with written documentation that the box design, materials and construction comply with all requirements of these regulations.
  - (F) All distribution boxes shall be bedded level on undisturbed soil, aggregate with a minimum of 90% compaction, or on concrete.
- (2) **Crossover Unit**
  - (A) Crossover units shall meet the minimum standards established in Section T-102 (3).
  - (B) Crossover units shall be located within the disposal trench, firmly bedded in the filter material.
  - (C) The crossover unit shall be installed so that the elevation of the overflow invert lies between the middle and top elevations of the distribution pipes.
  - (D) All joints shall be glued so as to be watertight.

### T-094: DROP BOX AND CROSSOVER UNIT MATERIALS AND CONSTRUCTION

(see Diagram 5)

- (1) **Drop Box**
  - (A) Drop Boxes shall be constructed of concrete, fiberglass, or other materials acceptable to the Department.
  - (B) Drop Boxes shall be watertight, and designed to accommodate the necessary distribution laterals and expected flows. The top, walls, and bottom of concrete Drop Boxes shall be at least one and one-half (1-1/2) inches thick.
  - (C) The invert elevation of the outlet and to subsequent trench shall be the same elevation as the top of the filter material in the trench.
  - (D) Each Drop Box shall be provided with a sump extending at least two (2) inches below the invert of the outlets.
  - (E) For initial use of a manufacturer's Drop Box design proposed for use in Nevada County, or when a revised box design is proposed for same, the commercial manufacturer of the prefabricated box shall provide the Department with written documentation that the box design, materials and construction comply with all requirements of these regulations.
  - (F) All Drop Boxes shall be bedded level on undisturbed soil, aggregate with a minimum of 90% compaction, or on concrete.
- (2) **Crossover Unit**
  - (A) Crossover units shall meet the minimum standards established in Section T-102 (3).
  - (B) Crossover units shall be located within the disposal trench, firmly bedded in the filter material. For gravelless systems, compacted soil, gravel and/or concrete shall be used for crossover support.
  - (C) The crossover unit shall be installed so that the elevation of the overflow invert lies between the middle and top elevations of the distribution pipes.
  - (D) All joints shall be mechanically secured.

### T-096: DIVERSION VALVE MATERIALS AND CONSTRUCTION

- (1) Diversion valves shall be constructed of durable material and be of a design approved by the Department. They shall be corrosion-resistant, watertight, and designed to accommodate the inlet and outlet pipes.
- (2) Each diversion valve shall have a positive stop.
- (3) The manufacturer's name or a number assigned by the Department shall be marked on the cover.
- (4) For initial use of a manufacturer's diversion valve design proposed for use in Nevada County, or when a revised valve design is proposed for same, the commercial manufacturer of the prefabricated valves shall provide the Department with written documentation verifying that the valve design, materials and construction comply with all requirements of these regulations.

### T-096: DIVERSION VALVE MATERIALS AND CONSTRUCTION

- (1) Diversion valves shall be constructed of durable material and be of a design approved by the Department. They shall be corrosion-resistant, watertight, and designed to accommodate the inlet and outlet pipes.
- (2) Each diversion valve shall have a positive stop.
- (3) The manufacturer's name or a number assigned by the Department shall be marked on the cover.
- (4) For initial use of a manufacturer's diversion valve design proposed for use in Nevada County, or when a revised valve design is proposed for same, the commercial manufacturer of the prefabricated valves shall provide the Department with written documentation verifying that the valve design, materials and construction comply with all requirements of these regulations.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

<p><b>T-098: DOSING/PUMP TANK MATERIALS AND CONSTRUCTION</b></p> <p>(see Diagram 12)</p> <p>(1) Dosing tanks shall be constructed in accordance with the minimum standards of Section T-092 (2) and (3) with the exception that the access manhole for the dosing tank shall be a minimum twenty (20) inches in diameter.</p> <p>(2) Each dosing tank employing one (1) or more pumps shall have a liquid capacity sufficient to deliver the design dose, and have a minimum capacity of 500 gallons. The Department may require a larger capacity dosing tank when the projected daily sewage flow exceeds five hundred (500) gallons per day. The liquid capacity shall be as measured from the invert elevation of the inlet fitting.</p> <p>(3) Each dosing tank shall be marked on the uppermost surface with the liquid capacity and manufacturer's business name, or a number assigned by the Department.</p> <p>(4) For dosing tanks proposed for use in Nevada County, or when a revised tank design is proposed, manufacturer of the tank shall provide the Department with written documentation that the tank design, materials and construction comply with all requirements of these regulations. The manufacturer shall provide a set of plans and specifications prepared by a registered professional engineer for each tank design and a set reflecting any subsequent revisions. The appropriate fee shall accompany plans.</p>	<p><b>T-098: DOSING/PUMP TANK MATERIALS AND CONSTRUCTION</b></p> <p>(see Diagram 12)</p> <p>(1) Dosing tanks shall be constructed in accordance with the minimum standards of Section T-092 (2) and (3) with the exception that the access manhole for the dosing tank shall be a minimum twenty (20) inches in diameter.</p> <p>(2) Each dosing tank employing one (1) or more pumps shall have a liquid capacity sufficient to deliver the design dose, and have a minimum capacity of 500 gallons. The Department may require a larger capacity dosing tank when the projected daily sewage flow exceeds five hundred (500) gallons per day. The liquid capacity shall be as measured from the invert elevation of the inlet fitting.</p> <p>(3) Each dosing tank shall be marked on the uppermost surface with the liquid capacity and manufacturer's business name, or a number assigned by the Department.</p> <p>(4) For dosing tanks proposed for use in Nevada County, or when a revised tank design is proposed, manufacturer of the tank shall provide the Department with written documentation that the tank design, materials and construction comply with all requirements of these regulations. The manufacturer shall provide a set of plans and specifications prepared by a registered professional engineer for each tank design and a set reflecting any subsequent revisions. The appropriate fee shall accompany plans.</p>
<p><b>T-100: EFFLUENT PUMP, CONTROL, AND ALARM MATERIALS AND CONSTRUCTION</b></p> <p>(see Diagram 12)</p> <p>(1) <b>General statement.</b> Unless otherwise specified, effluent pump, control box, and alarm materials and construction shall at minimum be in conformance with this section.</p> <p>(2) <b>Pumps, Controls, and Alarms.</b> Electrical components used in systems shall comply with the Uniform Electrical Code, and the following provisions:</p> <p>(A) Motors shall be continuous-duty, with overload protection.</p> <p>(B) Pumps shall have durable impellers of bronze, cast iron, or other materials approved by the Department.</p> <p>(C) Submersible pumps shall be provided with an easy, readily accessible means of electrical and plumbing disconnect, and a non-corrosive lifting device as a means of removal for servicing.</p> <p>(D) For pressure distribution systems, a corrosion-resistant screen shall protect the pump. The screen shall have at least twelve (12) square feet of surface area, with one-eighth (1/8) inch openings. The use of a screen is not required if the pump does not discharge into a pressurized distribution system, and the pump has a non-clog impeller capable of passing a 3/4 inch diameter solid sphere.</p> <p>(E) Pumps shall be automatically controlled by sealed mercury float switches with a minimum mercury tube rating of twelve (12) amps at one hundred fifteen (115) volts AC or by a Department-approved equivalent.</p> <p>(F) Pumps shall have automatically resetting audible and visual high water level alarm with manual silence switch that is located in or near the building served by the pump. The audible alarm only may be user cancelable. The electrical box for the pump and alarm system shall not be located in an environment that may damage the components.</p> <p>(G) Wiring must be of proper construction and gauge and permanently fixed to a supporting structure under permit from the local Administrative Authority.</p> <p>(H) The pump and alarm must be connected to separate circuits.</p> <p>(I) There shall be a non-resettable digital pump cycle counter in the electrical box.</p> <p>(J) There shall be a manual override switch in the electrical box to facilitate dosing control during inspections.</p>	<p><b>T-100: EFFLUENT PUMP, CONTROL, AND ALARM MATERIALS AND CONSTRUCTION</b></p> <p>(see Diagram 12)</p> <p>(1) <b>General statement.</b> Unless otherwise specified, effluent pump, control box, and alarm materials and construction shall at minimum be in conformance with this section.</p> <p>(2) <b>Pumps, Controls, and Alarms.</b> Electrical components used in systems shall comply with the California Electrical Code, and the following provisions:</p> <p>(A) Motors shall be continuous-duty, with overload protection.</p> <p>(B) Pumps shall have durable impellers of bronze, cast iron, or other materials approved by the Department.</p> <p>(C) Submersible pumps shall be provided with an easy, readily accessible means of electrical and plumbing disconnect, and a non-corrosive lifting device as a means of removal for servicing.</p> <p>(D) For pressure distribution systems, a corrosion-resistant screen shall protect the pump. The screen shall have at least twelve (12) square feet of surface area, with one-eighth (1/8) inch openings. The use of a screen is not required if the pump does not discharge into a pressurized distribution system, and the pump has a non-clog impeller capable of passing a 3/4 inch diameter solid sphere.</p> <p>(E) Pumps shall be automatically controlled.</p> <p>(F) Pumps shall have automatically resetting audible and visual high water level alarm with manual silence switch that is located within audible distance of the building served by the pump. The audible alarm only may be user cancelable. The electrical box for the pump and alarm system shall not be located in an environment that may damage the components.</p> <p>(G) Wiring must be of proper construction and gauge and permanently fixed to a supporting structure under permit from the local Administrative Authority.</p> <p>(H) The pump and alarm must be connected to separate circuits.</p> <p>(I) There shall be a non-resettable digital pump cycle counter in the electrical box.</p> <p>(J) There shall be a manual override switch in the electrical box to facilitate dosing control during inspections.</p>

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

### T-102: PIPE MATERIALS AND CONSTRUCTION

- (1) **General statements.** Unless otherwise specified, piping shall consist of materials and be constructed in conformance with the standards of this section. All piping shall be free of defects or damage. All connection of pipes of different diameters shall be made with the proper fittings.
- (2) **Building sewer pipe.** The building sewer shall be constructed with materials in conformance to building sewer standards, as identified in the Uniform Plumbing Code. The building sewer pipe shall have a minimum diameter of three (3) inches.
- (3) **Effluent sewer pipe, header pipe, and fittings.** Header pipe shall extend a minimum of five (5) feet out of the distribution box. Effluent sewer, header pipe and fittings shall be a minimum three (3) inch diameter, watertight and one of the following:
  - (A) Schedule 40 PVC that meets the most current ASTM D-1785 for three (3) inch pipe and D-2672 for minimum four (4) inch pipe.
  - (B) Schedule 40 Acrylonitrile-Butadiene-Styrene (ABS) that meets the most current ASTM Specification D-2468.
  - (C) ASTM SDR 35 with solvent-welded or rubber-gasketed joints.
  - (D) Other material approved by the Department.

~~NOTE: The first five feet of effluent sewer pipe extending from the septic tank outlet shall only be either "(A)" or "(B)".~~

All pipe and fittings shall be capable of passing a deflection test withstanding three hundred-fifty (350) pounds per foot without cracking or collapsing by using the method described in ASTM 2412. Markings shall meet requirements established in ASTM Specification D-2719, subsections 9.1.1, 9.1.2 and 9.1.4. The manufacturer of polyvinyl chloride pipe may be required to certify in writing to the Department, that pipe and fittings provided for use in absorption facilities within the County comply with all requirements of this section.

- (4) **Distribution piping.** Distribution piping for gravity flow systems shall be a minimum three (3) inches diameter Polyethylene (PE) pipe that meets the most current ASTM Specifications F-810, or other material approved by the Department. The pipe described above shall have two (2) rows of holes spaced one hundred-twenty (120) degrees apart and sixty (60) degrees on either side of a centerline. For distribution pipe, a line of contrasting color shall be provided on the outside of the pipe along the line furthest away and parallel to the two (2) rows of perforations. Markings, consisting of durable ink, shall cover at least fifty (50) percent of the length of the pipe. Markings may consist of a solid line, letters, or a combination of the two. Intervals between markings shall not exceed twelve (12) inches. The holes of each row shall not be more than five (5) inches on center and shall have a minimum diameter of one-half (1/2) inch.
- (5) **Pressure Transport Pipe, Pressure Distribution Manifolds, and Pressure Distribution Laterals.** Pressure transport pipe, pressure distribution manifolds, and pressure distribution lateral (piping and fittings), shall meet the most current requirements for schedule 40 PVC pressure pipe as identified in ASTM Specifications D-1785, or other material approved by the Department. All pressure distribution laterals and all pressure transport and manifold piping shall be adequately sized for the design flow.

### T-104: WATERLESS TOILET MATERIALS AND CONSTRUCTION

Waterless toilets shall meet the requirements of the Nevada County Land Use and Development Code, Chapter L-VI Article 5.

### T-102: PIPE MATERIALS AND CONSTRUCTION

- (1) **General statements.** Unless otherwise specified, piping shall consist of materials and be constructed in conformance with the standards of this section. All piping shall be free of defects or damage. All connection of pipes of different diameters shall be made with the proper fittings.
- (2) **Building sewer pipe.** The building sewer shall be constructed with materials in conformance to building sewer standards, as identified in the California Plumbing Code. The building sewer pipe shall have a minimum diameter of three (3) inches.
- (3) **Effluent sewer pipe, header pipe, and fittings.** Header pipe shall extend a minimum of five (5) feet out of the Drop Box. Effluent sewer, header pipe and fittings shall be a minimum three (3) inch diameter, watertight and one of the following:
  - (A) Schedule 40 PVC that meets the most current ASTM D-1785 for three (3) inch pipe and D-2672 for minimum four (4) inch pipe.
  - (B) Schedule 40 Acrylonitrile-Butadiene-Styrene (ABS) that meets the most current ASTM Specification D-2468.
  - (C) ASTM SDR 35 with solvent-welded or rubber-gasketed joints.
  - (D) Other material approved by the Department.

*All pipe and fittings shall be capable of passing a deflection test withstanding three hundred-fifty (350) pounds per foot without cracking or collapsing by using the method described in ASTM 2412. Markings shall meet requirements established in ASTM Specification D-2719, subsections 9.1.1, 9.1.2 and 9.1.4. The manufacturer of polyvinyl chloride pipe may be required to certify in writing to the Department, that pipe and fittings provided for use in absorption facilities within the County comply with all requirements of this section.*

- (4) **Distribution piping.** Distribution piping for gravity flow systems shall be a minimum three (3) inches diameter Polyethylene (PE) pipe that meets the most current ASTM Specifications F-810, or other material approved by the Department. The pipe described above shall have two (2) rows of holes spaced one hundred-twenty (120) degrees apart and sixty (60) degrees on either side of a centerline. For distribution pipe, a line of contrasting color shall be provided on the outside of the pipe along the line furthest away and parallel to the two (2) rows of perforations. Markings, consisting of durable ink, shall cover at least fifty (50) percent of the length of the pipe. Markings may consist of a solid line, letters, or a combination of the two. Intervals between markings shall not exceed twelve (12) inches. The holes of each row shall not be more than five (5) inches on center and shall have a minimum diameter of one-half (1/2) inch.
- (5) **Pressure Transport Pipe, Pressure Distribution Manifolds, and Pressure Distribution Laterals.** Pressure transport pipe, pressure distribution manifolds, and pressure distribution lateral (piping and fittings), shall meet the most current requirements for schedule 40 PVC pressure pipe as identified in ASTM Specifications D-1785, or other material approved by the Department. All pressure distribution laterals and all pressure transport and manifold piping shall be adequately sized for the design flow.

### T-104: WATERLESS TOILET MATERIALS AND CONSTRUCTION

Waterless toilets shall meet the requirements of the Nevada County Land Use and Development Code, Chapter L-VI Article 5.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-106: VAULT PRIVY AND PORTABLE TOILET MATERIALS AND CONSTRUCTION

- (1) **General requirements for vault privy and portable toilet shelters.**
  - (A) Structures shall be free of hazardous surface features, such as exposed nail points, splinters, sharp edges, and rough or broken boards, and shall provide privacy and protection from the elements.
  - (B) Building ventilation shall be equally divided between the bottom and top halves of the room. All vents shall be screened with sixteen (16) mesh screen of durable material.
  - (C) Buildings shall be fly and rodent proof, and shall have self-closing doors with an inside latch.
  - (D) Vaults shall be vented to the outside atmosphere by a flue or vent stack having a minimum inside diameter of four (4) inches
  - (E) Interior floors, walls, ceilings, partitions, and doors shall be finished with readily cleanable impervious material resistant to wastes, cleansers and chemicals. Floors and risers shall be constructed of impervious material and in a manner that shall prevent entry of vermin.
  - (F) The seat opening shall be covered with attached, open-front toilet seats with lids, both of which can be raised to allow use as a urinal.
  - (G) A toilet tissue holder shall be provided for each seat.
  
- (2) **Additional provisions for vault privy shelters.** In addition to complying with the requirements of Section T-106 (1), vault privies shall be provided with:
  - (A) Vents equal in area to a minimum of three (3) square feet; and
  - (B) A minimum clear space of twenty-four (24) inches between multiple-unit installations and a clear space of twelve (12) inches from the seat opening to the side building wall in single and multiple units.
  
- (3) **Additional provisions for portable toilet shelters.** Portable shelters may be prefabricated, skid mounted, or mobile. In addition to complying with the requirements of Section T-106 (1), portable toilet shelters shall:
  - (A) Provide screened ventilation to the outside atmosphere having a minimum area of one (1) square foot per seat;
  - (B) Provide a minimum floor space outside of the riser of nine (9) square feet per seat; and
  - (C) Provide separate compartments with doors and partitions or walls of sufficient height to ensure privacy in multiple-unit shelters except that separate compartments are not required for urinals.
  
- (4) **General requirements for vault privy and portable toilet facilities.**
  - (A) They shall have watertight chambers constructed of reinforced concrete, plastic, fiberglass, metal, or other material of acceptable durability and corrosion resistance, approved by the Department, and designed to facilitate the removal of the wastes.
  - (B) Blackwater shall be stored in an appropriate chamber until proper removal for final disposal elsewhere. Wastes shall be removed from the chamber as necessary to prevent overflow.
  - (C) All surfaces subject to soiling shall be impervious, easily cleanable, and readily accessible.
  
- (5) **Additional provisions for vault privy facilities.** In addition to meeting the provisions of Section T-106 (4), vault privy facilities shall meet the following:
  - (A) The capacity of vaults shall be adequately sized to accommodate the proposed use.
  - (B) A caustic shall be added routinely to vault chambers to control odors.
  
- (6) **Additional provisions for portable toilet facilities.** In addition to meeting the provisions of Section, T-106 (4), portable toilets shall meet the following:
  - (A) Have toilet bowls constructed of stainless steel, plastic, fiberglass, or ceramic or of other material approved by the Department;
  - (B) Waste passages shall have smooth surfaces and be free of obstructions, recesses or cross braces which would restrict or interfere with flow of blackwater;
  - (C) Biocides and oxidants shall be added to waste detention chambers at rates and intervals recommended by the manufacturer;
  - (D) Chambers and receptacles shall provide a minimum storage capacity of fifty (50) gallons per seat; and
  - (E) Portable shelters housing chemical toilets shall display the business name of the licensed sewage disposal service that is responsible for servicing them.

### T-106: VAULT PRIVY AND PORTABLE TOILET MATERIALS AND CONSTRUCTION

- (1) **General requirements for vault privy and portable toilet shelters.**
  - (A) Structures shall be free of hazardous surface features, such as exposed nail points, splinters, sharp edges, and rough or broken boards, and shall provide privacy and protection from the elements.
  - (B) Building ventilation shall be equally divided between the bottom and top halves of the room. All vents shall be screened with sixteen (16) mesh screen of durable material.
  - (C) Buildings shall be fly and rodent proof, and shall have self-closing doors with an inside latch.
  - (D) Vaults shall be vented to the outside atmosphere by a flue or vent stack having a minimum inside diameter of four (4) inches.
  - (E) Interior floors, walls, ceilings, partitions, and doors shall be finished with readily cleanable impervious material resistant to wastes, cleansers and chemicals. Floors and risers shall be constructed of impervious material and in a manner that shall prevent entry of vermin.
  - (F) The seat opening shall be covered with attached, open-front toilet seats with lids, both of which can be raised to allow use as a urinal.
  - (G) A toilet tissue holder shall be provided for each seat.
  
- (2) **Additional provisions for vault privy shelters.** In addition to complying with the requirements of Section T-106 (1), vault privies shall be provided with:
  - (A) Vents equal in area to a minimum of three (3) square feet; and
  - (B) A minimum clear space of twenty-four (24) inches between multiple-unit installations and a clear space of twelve (12) inches from the seat opening to the side building wall in single and multiple units.
  
- (3) **Additional provisions for portable toilet shelters.** Portable shelters may be prefabricated, skid mounted, or mobile. In addition to complying with the requirements of Section T-106 (1), portable toilet shelters shall:
  - (A) Provide screened ventilation to the outside atmosphere having a minimum area of one (1) square foot per seat;
  - (B) Provide a minimum floor space outside of the riser of nine (9) square feet per seat; and
  - (C) Provide separate compartments with doors and partitions or walls of sufficient height to ensure privacy in multiple-unit shelters except that separate compartments are not required for urinals.
  
- (4) **General requirements for vault privy and portable toilet facilities.**
  - (A) They shall have watertight chambers constructed of reinforced concrete, plastic, fiberglass, metal, or other material of acceptable durability and corrosion resistance, approved by the Department, and designed to facilitate the removal of the wastes.
  - (B) Blackwater shall be stored in an appropriate chamber until proper removal for final disposal elsewhere. Wastes shall be removed from the chamber as necessary to prevent overflow.
  - (C) All surfaces subject to soiling shall be impervious, easily cleanable, and readily accessible.
  
- (5) **Additional provisions for vault privy facilities.** In addition to meeting the provisions of Section T-106 (4), vault privy facilities shall meet the following:
  - (A) The capacity of vaults shall be adequately sized to accommodate the proposed use.
  - (B) A caustic shall be added routinely to vault chambers to control odors.
  
- (6) **Additional provisions for portable toilet facilities.** In addition to meeting the provisions of Section, T-106 (4), portable toilets shall meet the following:
  - (A) Have toilet bowls constructed of stainless steel, plastic, fiberglass, or ceramic or of other material approved by the Department;
  - (B) Waste passages shall have smooth surfaces and be free of obstructions, recesses or cross braces which would restrict or interfere with flow of blackwater;
  - (C) Biocides and oxidants shall be added to waste detention chambers at rates and intervals recommended by the manufacturer;
  - (D) Chambers and receptacles shall provide a minimum storage capacity of fifty (50) gallons per seat; and
  - (E) Portable shelters housing chemical toilets shall display the business name of the licensed sewage disposal service that is responsible for servicing them.



## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

### ~~T-108: PIT PRIVY MATERIALS AND CONSTRUCTION~~

#### ~~General requirements for a pit privy:~~

- ~~(A) Structures shall be free of hazardous surface features, such as exposed nail points, splinters, sharp edges, and rough or broken boards, and shall provide privacy and protection from the elements.~~
- ~~(B) Building ventilation shall be equally divided between the bottom and top halves of the room. All vents shall be screened with sixteen (16) mesh screen of durable material. Vents shall be equal in area to a minimum of three (3) square feet. There shall be a minimum clear space of twenty-four (24) inches between multiple-unit installations and a clear space of twelve (12) inches from the seat opening to the side building wall in single and multiple units.~~
- ~~(C) Buildings shall be fly and rodent proof, and shall have self-closing doors with an inside latch.~~
- ~~(D) Privies shall be vented to the outside atmosphere by a flue or vent stack having a minimum inside diameter of four (4) inches.~~
- ~~(E) Interior floors, walls, ceilings, partitions, and doors shall be finished with readily cleanable impervious material resistant to wastes, cleansers and chemicals. Floors and risers shall be constructed of impervious material and in a manner that shall prevent entry of vermin.~~
- ~~(F) The seat opening shall be covered with attached, open-front toilet seats with lids, both of which can be raised to allow use as a urinal.~~
- ~~(G) A toilet tissue holder shall be provided for each seat.~~

**~~\*\*ENTIRE T-108 SECTION REMOVED\*\*~~**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted\*

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

### T-110: ARTIFICIAL DRAIN DESIGN, MATERIALS AND CONSTRUCTION

(see Diagram 13)

- (1) **General statement.** For the purposes of these regulations, an artificial drain means a curtain drain or vertical drain that drains or diverts groundwater from the disposal field.
- (2) **General criteria for approval of an artificial drain.** Unless otherwise approved, an artificial drain shall meet the minimum requirements as follows:
  - (A) All artificial drains shall be designed by a consultant and generally conform to the requirements of special design systems, Section T-054.
  - (B) Artificial drains shall meet the minimum setback requirements to disposal area and replacement area and septic tank as indicated in Table 1 (contained in Section T-112). The discharge pipe and drainage trench pipe are integral parts of the system, but do not need to meet setback requirements to property lines, streams, lakes, ponds or other surface water bodies.
  - (C) All other requirements for system approval, except depth to groundwater, can be met. However, after the drain is installed, the groundwater levels shall conform to the requirements for vertical separation to groundwater for the proposed system.
  - (D) For a curtain drain, the site will allow discharge to the ground surface.
  - (E) The Department has the discretion of requiring demonstration that a proposed artificial drain is effective prior to issuing a permit.
- (3) **Design, construction, and materials requirements for artificial drains.**
  - (A) The artificial drain shall be filled with filter material. Prior to backfilling the trench, the filter material shall be covered with filter fabric, straw, or other material approved by the Department. A minimum of six (6) inches of soil cover shall be placed over each trench.
  - (B) A four (4) inch minimum diameter Polyvinyl Chloride (PVC) or Polyethylene (PE) perforated pipe shall be laid the entire length of the trench with two (2) inches of gravel underneath the pipe. EXCEPTION: This provision is not applicable to a vertical drain that penetrates a limiting layer and discharges into an underlying permeable soil.
  - (C) The trench shall be situated so that captured water drains by gravity-flow out of outlet pipes. Trench bottoms shall maintain a minimum of one (1) percent slope throughout the drainage trench. In areas where the outlet pipe will be subject to damage, the pipe shall be adequately protected. EXCEPTION: This provision is not required for a vertical drain that penetrates a limiting layer and discharges into an underlying permeable soil.
  - (D) The trench shall be a minimum of twelve (12) inches wide. For a curtain drain, it shall extend from ground surface at least 6 inches into a limiting layer. For a vertical drain, the trench shall penetrate through the limiting layer into a permeable soil.
  - (E) The trench shall be installed upslope of the disposal area to be protected.
- (4) **In the event that the discharge outflow from a curtain drain** will impact a neighboring property, the trench outlet from a curtain drain shall only discharge into a drainage channel or other conveyance designed for the transport of water, unless otherwise approved by the Department.

### T-110: ARTIFICIAL DRAIN DESIGN, MATERIALS AND CONSTRUCTION

(see Diagram 13)

- (1) **General statement.** For the purposes of these regulations, an artificial drain means a curtain drain or vertical drain that drains or diverts groundwater from the disposal field.
- (2) **General criteria for approval of an artificial drain.** Unless otherwise approved, an artificial drain shall meet the minimum requirements as follows:
  - (A) All artificial drains shall be designed by a consultant and generally conform to the requirements of special design systems, Section T-054.
  - (B) Artificial drains shall meet the minimum setback requirements to disposal area and replacement area and septic tank as indicated in Table 1 (contained in Section T-112).
  - (C) All other requirements for system approval, except depth to groundwater, can be met. However, after the drain is installed, the groundwater levels shall conform to the requirements for vertical separation to groundwater for the proposed system.
  - (D) For a curtain drain, the site will allow discharge to the ground surface.
  - (E) The Department has the discretion of requiring demonstration that a proposed artificial drain is effective prior to issuing a permit.
- (3) **Design, construction, and materials requirements for artificial drains.**
  - (A) The artificial drain shall be filled with filter material. Prior to backfilling the trench, the filter material shall be covered with filter fabric, straw, or other material approved by the Department. A minimum of six (6) inches of soil cover shall be placed over each trench.
  - (B) A four (4) inch minimum diameter Polyvinyl Chloride (PVC) or Polyethylene (PE) perforated pipe shall be laid the entire length of the trench with two (2) inches of gravel underneath the pipe. EXCEPTION: This provision is not applicable to a vertical drain that penetrates a limiting layer and discharges into an underlying permeable soil.
  - (C) The trench shall be situated so that captured water drains by gravity-flow out of outlet pipes. Trench bottoms shall maintain a minimum of one (1) percent slope throughout the drainage trench. Solid outlet pipe shall be SDR-35 or PVC Schedule 40. EXCEPTION: This provision is not required for a vertical drain that penetrates a limiting layer and discharges into an underlying permeable soil.
  - (D) The trench shall be a minimum of twelve (12) inches wide. For a curtain drain, it shall extend from ground surface at least six (6) inches into a limiting layer. For a vertical drain, the trench shall penetrate through the limiting layer into a permeable soil.
  - (E) The trench shall be installed upslope of the disposal area to be protected.
- (4) **In the event that the discharge outflow from a curtain drain** will impact a neighboring property, the trench outlet from a curtain drain shall only discharge into a drainage channel or other conveyance designed for the transport of water, unless otherwise approved by the Department.

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**\*edits/deletions highlighted**

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

**T-112: TABLES**

**TABLE 1**

If a setback is not specified in this Table, the most recently Board of Supervisors- adopted **Uniform** Plumbing Code setback will be applied.

FEATURES REQUIRING SETBACK:	MIN. HORIZONTAL SEPARATION DISTANCE IN FEET		
DISTANCE REQUIRED FROM: ↓	FROM DISPOSAL FIELD INITIAL AND REPLACEMENT AREA	FROM SEPTIC TANK AND SAND FILTER	FROM VAULT PRIVY
Wells			
Public well	200	100 <sup>1</sup>	100
Private well	100	100 <sup>1</sup>	150
Other wells, excluding monitoring wells		100 <sup>1</sup>	150
Surface waters <sup>2</sup>			
Reservoirs, lakes, springs, ponds, or perennial streams	100 <sup>3</sup>	100 <sup>1,3</sup>	150
Intermittent streams	50 <sup>3</sup>	25'	50'
Storm drainage 25-feet (water flow stops shortly after rain stops)			
Artificial drains--Vertical/Curtain drains			
Upgradient of system	15 <sup>4</sup>	15 <sup>4</sup>	25'
Downgradient of system	50'	25'	50'
Water canals <sup>2</sup>			
Flat area	100 <sup>3</sup>	100 <sup>1,3</sup>	150
Sloping area			
-Upgradient	clear ROW <sup>5</sup>	clear ROW <sup>5</sup>	25'
-Downgradient	100'	100 <sup>1</sup>	150
Cuts manmade in excess of 2.5 feet (top of downslope cut) or escarpments	4 X height <sup>6</sup> of the bank, to a maximum of 50'	10'	4 X height <sup>6</sup> of the bank, to a maximum of 50'
Property lines			
Adjacent property with public water	10'	5'	200'
Adjacent property with private water	10 <sup>7</sup> or 50'	10'	200'
Foundation lines of any structure including garages, out-buildings	8'	5 <sup>8</sup>	5'
Swimming pools			
In-ground	20'	20'	20'
Above-ground	5'	5'	5'
All Water lines	10 <sup>9</sup>	5 <sup>10</sup>	10'
Easements <sup>11</sup>	Clear	Clear	Clear

**FOOTNOTES:**

1. The 100-foot setback from a septic tank to a well, surface water or canal, may be reduced to 50-feet if the tank is bedded on a 6" layer of sand or ¾" minus aggregate, and passes a water-tight test.
2. Setbacks shall be measured from the edge of the 10-year historic high water level (western county) or the 100-year historic high water level (eastern county). For western county, where a flood plain is indicated on a FEMA map, the 100-year setback shall be utilized unless a 10-year flood plain has been delineated by a drainage study or other approved methods. In no event shall a system be placed within a 100-year flood plain or within an area of special flood hazard as defined in the Flood Plain Management Regulations contained in Chapter XII of the Nevada County Land Use and Development Code.
3. Where the deepest portion of the surface water liquid level is higher in elevation than the highest liquid level in the leachfield, this setback may be reduced to twenty-five (25) feet.

**T-112: TABLES**

**TABLE 1**

If a setback is not specified in this Table, the most recently Board of Supervisors- adopted **California** Plumbing Code setback will be applied.

FEATURES REQUIRING SETBACK:	MIN. HORIZONTAL SEPARATION DISTANCE IN FEET		
DISTANCE REQUIRED FROM: ↓	FROM DISPOSAL FIELD INITIAL AND REPLACEMENT AREA	FROM SEPTIC TANK AND SAND FILTER	FROM VAULT PRIVY
Wells			
Public well	200'	200'	200'
Private well	100'	100 <sup>1</sup>	150'
Other wells, excluding monitoring wells		100 <sup>1</sup>	150'
Surface waters <sup>2</sup>			
Reservoirs, lakes, springs, ponds, or perennial streams	100 <sup>3</sup>	100 <sup>1,3</sup>	150'
Intermittent streams			
Storm drainage 25-feet (water flow stops shortly after rain stops)	50 <sup>3</sup>	25'	50'
Artificial drains--Vertical/Curtain drains			
Upgradient of system	15 <sup>4</sup>	15 <sup>4</sup>	25'
Downgradient of system	50'	25'	50'
Water canals <sup>2</sup>			
Flat area	100 <sup>3</sup>	100 <sup>1,3</sup>	150'
Sloping area			
-Upgradient	clear ROW <sup>5</sup>	clear ROW <sup>5</sup>	25'
-Downgradient	100'	100 <sup>1</sup>	150'
Cuts manmade in excess of 2.5 feet (top of downslope cut) or escarpments	4 X height <sup>6</sup> of the bank, to a maximum of 50'	10'	4 X height <sup>6</sup> of the bank, to a maximum of 50'
Property lines			
Adjacent property with public water	10'	5'	200'
Adjacent property with private water	10 <sup>7</sup> or 50'	10'	200'
Foundation lines of any structure including garages, out-buildings	8'	5 <sup>8</sup>	5'
Swimming pools			
In-ground	20'	20'	20'
Above-ground	5'	5'	5'
All Water lines	10 <sup>9</sup>	5 <sup>10</sup>	10'
Easements <sup>11</sup>	Clear	Clear	Clear

**FOOTNOTES:**

1. The 100-foot setback from a septic tank to a well, surface water or canal, may be reduced to 50-feet if the tank is bedded on a 6" layer of sand or ¾" minus aggregate, and passes a water-tight test.
2. Setbacks shall be measured from the edge of the 10-year historic high water level (western county) or the 100-year historic high water level (eastern county). For western county, where a flood plain is indicated on a FEMA map, the 100-year setback shall be utilized unless a 10-year flood plain has been delineated by a drainage study or other approved methods. In no event shall a system be placed within a 100-year flood plain or within an area of special flood hazard as defined in the Flood Plain Management Regulations contained in Chapter XII of the Nevada County Land Use and Development Code.
3. Where the deepest portion of the surface water liquid level is higher in elevation than the highest liquid level in the leachfield, this setback may be reduced to twenty-five (25) feet.
4. Where the deepest portion of the curtain drain liquid level is higher in elevation than the highest liquid level in the leachfield, this setback

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

**Edits/deletions highlighted**

4. Where the deepest portion of the curtain drain liquid level is higher in elevation than the highest liquid level in the leachfield, this setback may be reduced to ten (10) feet. For septic tanks, this setback may be reduced to ten (10) feet if the tank is bedded on a 6" layer of sand or ¾" minus aggregate, and passes a watertight test.
5. "ROW" = Right of Way
6. The height (in feet) of the cut or escarpment as measured from the toe of the cut or escarpment vertically to the projection of the natural ground slope.
7. The ten (10) feet separation applies where adjacent parcels have been developed with a dwelling and approved water supply as defined in Chapter X, Land Use and Development Code. The 50-foot separation shall be used when adjacent parcels have not been so developed. For subdivisions, disposal fields may be ten (10) feet from interior property lines in private well areas if a well has been drilled on the affected parcel and meets Department standards for an approved domestic water supply. The greater setback shown above shall apply to parcels adjacent to the subdivision.
8. The Department encourages the placement of septic tanks and other treatment units as close as feasible to the minimum separation from the building foundation in order to minimize possible clogging of the building sewer.
9. A water line constructed of materials approved for use within a building and sleeved in schedule 40 pipe (or approved equivalent) may cross a leach field so long as the water pipe is installed above the highest liquid level of the leachfield, and the sleeve extends a minimum of ten (10) feet on both sides of the leachfield and is constructed so as to be watertight.
10. A water line constructed of materials approved for use within a building may be installed crossing a septic tank so long as a minimum of one (1) foot of vertical separation is maintained.
11. A system may be installed underneath overhead power lines or cross other utilities (e.g., canals) providing all of the following conditions are met:
  - (a) written authorization is received from the utility company operating and maintaining the utility affected or for which the easement or restriction was granted;
  - (b) the Department determines that the encroachment is necessary and there is no other viable area in which to install the system; and
  - (c) all construction modifications required by the Department and the affected utility company(ies) are instituted to carry out the purposes of these regulations. Unless otherwise approved, canal crossings shall be made in conformance with current construction requirements of the Nevada Irrigation District.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

**\*new additions/changes highlighted\***

5. may be reduced to ten (10) feet. For septic tanks, this setback may be reduced to ten (10) feet if the tank is bedded on a 6" layer of sand or ¾" minus aggregate, and passes a watertight test.
5. "ROW" = Right of Way
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  - (b) The Department determines that the encroachment is necessary and there is no other viable area in which to install the system; and
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## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

Table 2

QUANTITIES OF SEWAGE FLOW	GALLONS/DAY
Airports, bus terminals, train stations	8 (per employee)
Bathhouses and swimming pools	10 (per person)
Camps (4 persons per campsite, where applicable)	
-with central comfort stations	35 (per person)
-with flush toilets, no showers	25 (per person)
-construction camps (semi-permanent)	50 (per person)
-day camps (no meals served)	15 (per person)
-resort camps (night and day) with limited plumbing	50 (per person)
-luxury camps	100 (per person)
Churches	
-with kitchen	15 (per seat)
-without kitchen	5 (per seat)
Country clubs	
-per resident member	100
-add per nonresident member present	25
-add per employee	20 (per 8 hour shift)
Dentist office	
-per wet chair	200
-add per non-wet chair	50
Dwellings	
-single family dwellings	150 (per bedroom)
-boarding houses	150 (per bedroom)
-additional for non-residential boarders	10 (per person)
-rooming houses	80 (per person)
-condominiums, apartments and other dwellings except for single-family dwellings	300 (per unit)
Factories	
-with shower facilities, no food service or industrial wastes	35 (per person, per shift)
-without shower facilities, no food, service or industrial wastes	15 (per person, per shift)
Hospitals	250 (per bed space)
Hotels or motels	
-with private baths	120 (per room)
-without private baths	100 (per room)
Institutions other than hospitals	125 (per bed)

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

Table 2

QUANTITIES OF SEWAGE FLOW	GALLONS/DAY
Airports, bus terminals, train stations	8 (per employee)
Bathhouses and swimming pools	10 (per person)
Camps (4 persons per campsite, where applicable)	
-with central comfort stations	35 (per person)
-with flush toilets, no showers	25 (per person)
-construction camps (semi-permanent)	50 (per person)
-day camps (no meals served)	15 (per person)
-resort camps (night and day) with limited plumbing	50 (per person)
-luxury camps	100 (per person)
Churches	
-with kitchen	15 (per seat)
-without kitchen	5 (per seat)
Country clubs	
-per resident member	100
-add per nonresident member present	25
-add per employee	20 (per 8 hour shift)
Dentist office	
-per wet chair	200
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Dwellings	
-single family dwellings	150 (per bedroom)
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-condominiums, apartments and other dwellings except for single-family dwellings	300 (per unit)
Factories	
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Hospitals	250 (per bed space)
Hotels or motels	
-with private baths	120 (per room)
-without private baths	100 (per room)
Institutions other than hospitals	125 (per bed)

## Existing Regulation

(Titled: "County of Nevada On-Site Sewage Disposal Ordinance & Regulations")

\*edits/deletions highlighted

Laundries, self-service washing machines	500 (per machine)
Mobile home parks	250 (per space)
Parks, public picnic areas -with toilet wastes only -with bathhouses, showers and flush toilets	5 (per person) 10 (per person)
Restaurants -with multi-use utensils -with single service utensils -with bars and/or cocktail lounges -drive-in restaurant	50 (per seat) 25 (per seat) 50 (per seat) 50 (per car space)
Retail stores -for customer -add for each employee (add 100 gallons/day for each utility sink)	650 (per toilet) 15 (per shift)
Schools -boarding -day (without gyms, cafeterias or showers) -day (with gyms, cafeterias and showers) -day (with cafeteria, no gym or showers)	100 (per person) 15 (per person) 25 (per person) 20 (per person)
Service stations	10 (per vehicle served)
Swimming pools and bathhouses	10 (per person)
Theaters-movie	5 (per seat)
Recreational vehicle parks -without individual water and sewer hookups -with individual water sewer hookups	50 (per space) 100 (per space)
Workers -Construction (temporary camps) -day, at schools and offices	50 (per person) 15 (per shift)

**T-116: FEES**

Fees are set by Resolution of the Board of Supervisors.

## NEW Regulation

(Titled: "County of Nevada Local Area Management Plan (LAMP) and Onsite Wastewater Treatment System (OWTS) Policy")

\*new additions/changes highlighted\*

Laundries, self-service washing machines	500 (per machine)
Mobile home parks	250 (per space)
Parks, public picnic areas -with toilet wastes only -with bathhouses, showers and flush toilets	5 (per person) 10 (per person)
Restaurants -with multi-use utensils -with single service utensils -with bars and/or cocktail lounges -drive-in restaurant	50 (per seat) 25 (per seat) 50 (per seat) 50 (per car space)
Retail stores -for customer -add for each employee (add 100 gallons/day for each utility sink)	650 (per toilet) 15 (per shift)
Schools -boarding -day (without gyms, cafeterias or showers) -day (with gyms, cafeterias and showers) -day (with cafeteria, no gym or showers)	100 (per person) 15 (per person) 25 (per person) 20 (per person)
Service stations	10 (per vehicle served)
Theaters-movie	5 (per seat)
Recreational vehicle parks -without individual water and sewer hookups -with individual water sewer hookups	50 (per space) 100 (per space)
Workers -Construction (temporary camps) -day, at schools and offices	50 (per person) 15 (per shift)

**T-116: FEES**

Fees are set by Resolution of the Board of Supervisors.