COUNTY OF SACRAMENTO

On-Site Wastewater Treatment Systems (OWTS) Local Area Management Program (LAMP)

Environmental Management Department (EMD)

Environmental Compliance Division

SACRAMENTO COUNTY

ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS)

LOCAL AGENCY MANAGEMENT PROGRAMS (LAMP)

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Appendix A

Sacramento County LAMP

Review, E. Rapport revised 11 May 2015; Revised June 2015 by EMD as per Mtg with E. Rapport, L. Adams, C. Pace & C. Hawkins; Revised per teleconference with E Rapport, C Pace & C Hawkins

	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 Concern; Address in First Water Quality Assessment Report.**
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.	LAMP Part 1, page 1 of 3, Annual Report section	SCC 6.32.020 (d)		
3.3.1	Complaints	Include numbers and locations of complaints, related investigations, and means of resolution.	LAMP Part 1, page 1 of 3, Annual Report section	SCC 6.32.020 (d)		
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.	LAMP Part 1, page 1 of 3, Annual Report section	SCC 6.32.020 (d)		
3.3.3	Permits for New and Replacement OWTS	Include numbers and locations of permits for new and replacement OWTS, and their Tiers.	LAMP Part 1, page 1 of 3, Annual Report section	SCC 6.32.020 (d)		
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.	LAMP Part 1, page 1 of 3, Permanent Records section	SCC 6.32.020 (d)		
3.5	Notifications to Municipal Water Suppliers	Describe your program for notifying public well and water intake owners, and the State Board Division of Drnking Water Programs. 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.	LAMP Part 1, page 2, Notification section & LAMP Part 2, page 4-5 "Failure"	SCC 6.32.020 (d), SCC 6.32.030		As appropriate based on the Water Quality Assessment Report, identify specific surface water bodies with public intakes, if any, and recommend required setbacks as described in OWTS Policy Sections 7.5.6 through 7.5.10.
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.	LAMP Part 1, page 1 of 3, Annual Report section	None provided		
9.1.1	Degree of vulnerability due to local hydrogeology	*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).*	LAMP Part 3 & SCC 6.32.010	SCC 6.32, 6.32.010 & 6.32.080		*Site Evaluation Considerations, should require Qualified Professionals to evaluate sites in all hydrogeologically vulnerable areas, as identified in Water Quality Assessment Reports. (Guidance Document, Part One, Chapter 6).*

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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*.	LAMP Part 3,Guidance Manual Part 2 pages 2-38 & SCC 6.32.340 Table 3	SCC 6.32, SCC 6.32.340 Table 3 & 6.32.080		
9.1.3	Shallow soils requiring non-standard dispersal systems	*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.	LAMP Part 3, Guidance Manual Part 2, Chapters 19-26, pages 19-31 & SSC 6.32.270-6.32.340	SCC 6.32.080, 6.32.270-6.32.340		
9.1.4	High domestic well usage areas	*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 professionals should ensure that field methods are sufficient to mitigate the potential for false positives.*	LAMP Part 3, Guidance Manual Part 1 Chapter 7 pages 8-12,Part 2 Chapter 16 pages 8-11; LAMP Part 4 Policies & SCC 6.32.150(a)	SCC 6.32.020(d), SCC 6.32.080 & SCC 6.32.150(a)		Based on Water Quality Assessment Reports, we may require further area-specific guidelines for maximum densities of new and replacement OWTS, at minumum based on nitrate loading, and anticipated pollutant transport directions toward wells considering ambient groundwater flow directions, domestic well constructions, and estimated capture zones.
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.*	LAMP Part 3, Guidance Manual Part 1 , Chapters 4-7 pages 5-12 and Part 2, Chapter 11, page 2	SCC 6.32.080		Based on Water Quality Assessment Reports, we may require further specific guidelines in areas with thin soils over shallow bedrock, and nearby private domestic wells that produce from fractured bedrock.
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*.	LAMP Part 3, Guidance Manual Part 1 Chapters 4-7 pages 5-12 and Part 2, Chapter 11, page 2	SCC 6.32.080		
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 dishwater 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*.	LAMP Part 3, Guidance Manual Part 2, Chapter 16 pages 8-11 & SCC 6.32.340, Table 3	SCC 6.32.340 Table 3		Based on Water Quality Assessment Reports, we may require further local guidance espcially in areas with standing surface water bodies (e.g., ponds), shallow groundwater, and either coarse-grained, permeable soils, or shallow fractured bedrock.
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 No 303D Water			

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9.1.9	High OWTS density areas	*Where nitrate is an identified chronic issue, at minimum, consider nitrogen loading per area; for example, see Hantzsche and Finnemore (1992), Crites and Tchobanoglous (1998), and more recent publications as appropriate.*	LAMP Part 4 Policies, Guidance Manual Part 1 & SCC 6.32.150	SCC 6.32.020(d), SCC 6.32.080 & SCC 6.32.150		Based on Water Quality Assessment Reports, we may require further local guidance based on nitrate loading; see also our related comment on Section 9.1.4.
9.1.10	Limits to parcel size	At minimum, consider hydraulic mounding, nitrate and pathogen loading, and sufficiency of potential replacement areas.	LAMP Part 4, Policies; LAMP Part 3,Guidance Manual Part 1, Chapter 6 page 6-7 & SCC 6.32.340	SCC 6.32.020(d), SCC 6.32.080, SCC 6.32.340		Based on Water Quality Assessment Reports, we may require further local guidance based on nitrate loading; see also our related comment on Section 9.1.4.
9.1.11	areas with OWTS that predate adopted standards	This refers to areas with known, multiple existing OWTS.	LAMP Part 3, Guidance Manual Part 1 & SCC 6.32150(a)	SCC 6.32.080, SCC 6.32.150(a)		Based on Water Quality Assessment Reports, we may require further local guidance based on nitrate loading; see also our related comment on Section 9.1.4.
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.	LAMP Part 3, Guidance Manual Chapter 16 pages 8-11; SCC 6.32.150 C(1) & 6.32.340 Table 3	SCC 6.32.080, SCC 6.32.150 C(1), 6.32.340 Table 3		Based on Water Quality Assessment Reports, we may require further local guidance based on nitrate loading; see also our related comment on Section 9.1.4.
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.	LAMP Part 3, Guidance Manual Parts 1,2,3 & 4	SCC 6.32.010-6.32.020, 6.32.080, 6.32.190, 6.32.200, 6.32.230-340, 6.32.470, 6.32.480. 6.32		
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.	LAMP Part 3, Guidance Manual Part 1, pages 2-13	SCC 6.32.080, SCC 6.32.190		
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.*	N/A No Impaired Water			
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.	SCC 6.32.090 LAMP Part 4 Policies pages 27-29; LAMP Part 3, Guidance Manual Part 2, page 2 and Part 3, Chapter 30, page 2	SCC 6.32.080, SCC 6.32.020 (d)		

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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*: http://www.cowa.org/	LAMP Part 3, Guidance Manual Part 1, Chapter 3, Part A, page 3; Guidance Manual Part 1, Chapter 4, Part A, page 5; Guidance Manual Part 1, Chapter 6, page 7; Guidance Manual Part 1, Chapter 7, Part B, page 8; Guidance Manual Part 1, Chapter 7, Part C, page 12; Guidance Manual Part 2, Chapter 24, Part B, page 28; Guidance Manual Part 3, Chapter 32, pages 2-4.	SCC 6.32.080		
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.*	LAMP Part 3, Guidance Manual Part 3, Chapter 33, Part A, page 4 & EMD Website	SCC 6.32.080		
9.2.6	Septage Disposal	Assess existing and proposed disposal locations, and their adequacy.	LAMP Part 5 Other	SCC 6.32.020(d)		
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* .	LAMP Part 2, SCC 6.32.180	SCC 6.32.180		*The Central Valley Regional Water Quality Control Board may in future consider terminating currently active Waste Discharge Requirements (WDRs) for the Clay Station 1200 Subdivision (the Ranch). While EMD concurs in principle, this action could affect EMD's ability to locally regulate the property. EMD proposes to evaluate the following issues: incentives for the Ranch to conduct ground water sampling; future management or potential dissolution of the existing Sewer Maintenance District, and requirements for the management or disposition of the Ranch Corrective Action Fund. EMD will provide appropriate recommendations regarding the Ranch and these issues in the first Water Quality Assessment Report.*

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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:* http://www.waterboards.ca.gov/centralvalley/water_issues/salinity/laws_regs_policies/rw_policy_implementation_mem.pdf	LAMP Part 5 Other	SCC 6.32.020(d)		Based on Water Quality Assessment Reports, we may require further local evaluation of local Total Dissolved Solids, Electrical Conductivity, major ion balance, and nitrate in groundwater, for example in areas with closely spaced OWTS that predate adopted standards.
9.2.9	Watershed Management Groups	Coordinate *with volunteer well monitoring programs* and similar watershed management groups.	LAMP Part 5 Other	SCC 6.32.080 (d)		
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*.	LAMP Part 3, Guidance Manual Part 1, Chapter 3 E, page 5.	SCC 6.32.080		
9.2.11	Public Water System Notification prior to permitting OWTS Installation or Repairs	Give your notification procedures to inform public water services of pending OWTS installations and repairs within prescribed setback distances.	LAMP Part 1, Responsibities and Duties	SCC 6.32.080 (d)		
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.*	LAMP Part 3, Guidance Manual Part 2, Chap. 16, page 8	SCC 6.32.080		Based on Water Quality Assessment Reports, we may require further local guidance on nitrate reduction, as discussed in the OWTS Policy, Sections 10.9 and 10.10.
9.2.13	Cesspool Discontinuance and Phase-Out	Provide plans and schedule.	N/A Currently prohibited	SCC 6.32.060		
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:	None provided	None provided		
9.3.1	Permit Records, OWTS with Variances	Describe your records maintenance; numbers, locations, and descriptions of permits where you have granted variances.	LAMP Part 1, Responsibities and Duties, page 1, Annual Report section	SCC 6.32.020 (d)		
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*: http://www.nrcs.usda.gov/wps/portal/nrcs/site/ca/home/ http://www.cdpr.ca.gov/docs/emon/grndwtr/gwpa_maps.htm http://ngmdb.usgs.gov/maps/mapview/	LAMP Part 1, page 1, Annual Report section & LAMP Part 1, page 2, Water Quality Data	SCC 6.32.020 (d)		

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		http://www.conservation.ca.gov/cgs/information/publications/ms/Documents/MS58.pdf http://www.water.ca.gov/groundwater/data_and_monitoring/northern_region/GroundwaterLevel/SacValGWContours/100t400_Wells_Spring-2013.pdf http://www.water.ca.gov/waterdatalibrary/ http://www.waterboards.ca.gov/gama/docs/hva_map_table.pdf http://geotracker.waterboards.ca.gov/gama/ http://msc.fema.gov/portal				
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 $\delta^{18}O$ and $\delta^{15}N$ of nitrate (Megan Young, USGS, 2014 pers comm), and the artificial sweeteners sucralose and acesulfame-K (Buerge et al 2009, Van Stempvoort et al 2011, and more recent publications as they become available).*	LAMP Part 1, page 1, Annual Report section & LAMP Part 1, page 2, Water Quality Data	SCC 6.32.020 (d)		
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	N/A		
9.3.2.3	Water Quality of Public Water Systems	Reviews can be by you or another municipality.	LAMP Part 1, Responsibities and Duties	SCC 6.32.020 (d)		
9.3.2.4	Domestic Well Sampling, New Well Development	This applies if those data are reported.	N/A	N/A		
9.3.2.5	Beach Water Quality Sampling, H&S Code §115885	*Public beaches include those on freshwater.*	N/A	N/A		
9.3.2.6	Receiving Water Sampling Related to NPDES Permits	This refers to existing data from other monitoring programs.	N/A	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	N/A		

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9.3.2.8	Groundwater Sampling Related to Waste Discharge Requirements	This refers to existing data from other monitoring programs.	LAMP Part 1, page 2, Water Quality Data	N/A		
9.3.2.9	Groundwater Sampling Related to GAMA Program	This refers to existing data from other monitoring programs.	LAMP Part 1, page 2, Water Quality Data	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.	LAMP Part 1, Responsibities and Duties	SCC 6.32.020 (d)		
9.4	Not Allowed or Authorized in LAMP:	For Section 9.4 et seq, ensure that your LAMP covers prohibitions.	None provided	None provided		
9.4.1	Cesspools	Local Agencies cannot authorize cesspools of any kind or size.	LAMP Part 3,Guidance Manual Part 1, Chapter 1, page 2 & SCC 2.32.060	SCC 6.32.080, SCC 2.62.060		
9.4.2	Projected Flow>10,000 gpd	*Apply professional judgment to further limit projected flows.*	LAMP Part 3, Guidance Manual Part 2, Chapter 12, page 3	SCC 6.32.080		
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.	LAMP Part 3,Guidance Manual Part 1, Chapter 1, page 2	SCC 6.32.080		
9.4.4	Installation on Slopes >30% without Registered Professional's Report	*See also earlier comments, Section 9.1.1, regarding potential geotechnical concerns.*	LAMP Part 3, Guidance Manual Part 2 Chapter 26, pages 31 & SCC 6.32.340 (c)(4)	SCC 6.32.080, 6.32.340 (c)(4)		
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.*	LAMP Part 3, Guidance Manual Part 2 Chapter 27 H, page 36	SCC 6.32.080		
9.4.6	Supplemental Treatments without Monitoring and Inspection	*Therefore, ensure that the LAMP describes periodic inspection and monitoring for OWTS with supplemental treatments* .	LAMP Part 3, Guidance Manual Part 3, Chapter 30, page 2 & SCC 6.32.240(a)	SCC 6.32.080, SCC 6.32.240 (a)		
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.*	LAMP Part 3, Guidance Manual Part 1, Chapter 1, page 2	SCC 6.32.080		

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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.*	LAMP Part 3, Guidance Manual Part 2 Chapter 11 page 2 & SCC 6.32.340 (c)(2) thru (c)(3)	SCC SCC 6.32.080, 6.32.340 (c)(2) thru (c)(3)		
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.)	LAMP Part 3, Guidance Manual Part 1, Chapter 2, page 3 & SCC 6.32.190 (b)	SCC 6.32.080, SCC 6.32.190 (b), Sacramento Area Sewer District Ordinance 0068 2.1.1 & 2.1.2		
9.4.10	Minimum Setbacks:	These setbacks are from public water systems.	None provided	None provided		
9.4.10.1	From Public Supply Wells	If the dispersal system is less than 10' in depth, then the setback must be greater than150' from public water supply well.	LAMP Part 3, Guidance Manual Part 2, Chapter 16, pages 8-11	SCC 6.32.080		
9.4.10.2		If the dispersal system is greater than10' in depth, then the setback must be greater than 200' from public water supply well.	LAMP Part 3, Guidance Manual Part 2, Chapter 16, pages 8-11	SCC 6.32.080		
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'.	LAMP Part 3, Guidance Manual Part 2, Chapter 16, pages 8 -11	SCC 6.32.080		
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.	LAMP Part 3, Guidance Manual Part 2, Chapter 16, pages 8-11	SCC 6.32.080		
9.4.10.5	From Public Surface Water Supplies	If the dispersal system is greater than1,200,'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.	LAMP Part 3, Guidance Manual Part 2, Chapter 16, pages 10 & 11	SCC 6.32.080		
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.	LAMP Part 3, Guidance Manual Chapter 6, pages 6-7; LAMP Part 4 Policies; SCC 6.32.340 Table 3	SCC 6.32.020(d), SCC 6.32.080, SCC 6.32.340 Table 3		

	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 Concern; Address in First Water Quality Assessment Report.**
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. and any other Local Agency's mitigation measures.	LAMP Part 3, Guidance Manual Part 2, Chapter 16, pages 8-11	SCC 6.32.080		
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.	LAMP Part 3, Guidance Manual Introduction, page 2; SCC 6.32.10	SCC 6.32.080, SCC 6.32.10		
9.6	Regional Water Quality Control Board Consideration of LAMP	Regional Boards shall consider past performance of local programs to protect water quality. *We will generally consider past performance based on our reviews of annual status and evaluation reports; see Section 9.3.3.*				

References:

Hantzsche, N.N. and E.J. Finnemore (1992). *Predicting groundwater nitrate-nitrogen impacts*. "Groundwater," 30, No. 4, pages 490-499.

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Buerge, Ignaz J., Hans-Rudolf Buser, Maren Kahle, Markus D. Muller, and Thomas Poiger (2009), *Ubiquitous occurrence of the artificial sweetener acesulfame in the aquatic environment: an ideal chemical marker of domestic wastewater in groundwater*. "Environmental Science and Technology," 43, pages 4,381 to 4,385.

Van Stempvoort, Dale R., James W. Roy, Susan J. Brown, and Greg Bickerton (2011). *Artifical sweeteners as potential tracers in groundwater in urban environments*. "Journal of Hydrology," 401, pages 126 to 133.

	GENERAL REQUIREMENTS FOR LAMPs					
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SACRAMENTO COUNTY

LOCAL AREA MANAGEMENT PROGRAM (LAMP)

Introduction

The County of Sacramento Environmental Management Department (EMD) is the regulatory agency that oversees (1) the design, installation, and operation of on-site wastewater treatment systems (OWTS), (2) the management of non-discharging liquid waste systems, and (3) liquid waste disposal requirements associated with land use modifications such as subdivisions, parcel splits, and lot line adjustments. EMD regulates these elements within the unincorporated areas of Sacramento County. The incorporated cities within the geographical boundaries of Sacramento County will either establish an MOU with EMD, or specify EMD as the regulatory authority in the city's ordinance. In the absence of a valid MOU or specified regulatory authority, each incorporated city will need to establish its own LAMP.

An OWTS may consist of tanks, treatment and disposal components, and disposal fields which are used to convey, treat, store, or dispose of potentially harmful wastewater when those wastewaters are not directly and immediately disposed of in a public sanitary sewer. The authority for EMD to develop and adopt OWTS regulations is established in the California Health and Safety Code, Section 101000 et seq. and Sacramento County Code (SCC), Section 2.15.030.

The enactment of the Porter-Cologne Water Quality Control Act in 1971 resulted in the formation of California State Regional Water Quality Control Boards (RWQCB). The RWQCBs are vested with the authority to require individuals or entities to obtain waste discharge requirements (WDRs) from the appropriate RWQCB if such individuals or entities intend to dispose of wastewater that has the potential to contaminate surface or groundwater. WDRs are designed to ensure that surface and/or groundwater is not impaired by wastewater discharges. RWQCBs may conditionally waive WDRs for OWTS when a local enforcement agency (e.g. EMD) adopts and enforces regulations that protect water quality to a degree that is consistent with the applicable basin plan.

In accordance with the regulatory authority referenced above, the County of Sacramento Board of Supervisors adopted Sacramento County Code (SCC) Chapter 6.32 (*On-site Management of Wastewater*) in November 2010. SCC 6.32 regulates various aspects of wastewater treatment and disposal. EMD developed these regulations in conjunction with the most current scientific research available at the time the Ordinance was written, in addition to consultation with the Central Valley RWQCB. In addition to adopting the Ordinance, EMD also developed an On-site Wastewater Management Guidance Manual (Manual). The Manual is intended to complement SCC Chapter 6.32 by providing additional detail regarding the OWTS site evaluation and permitting process in such a manner that compliance with SCC 6.32 can be easily achieved. The Manual is incorporated by reference into SCC 6.32.

The State Water Resources Control Board adopted the *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (Policy) on June 19th, 2012 which was finalized in May 2013. Pursuant to Water Code Section 13291(b)(3), the adopted Policy describes requirements authorizing a qualified local agency to implement the adopted policy. The Policy describes four "Tiers" of Onsite Wastewater Treatment System management. Tier 2 describes the requirements for developing a "Local Area Management Program" (LAMP), which when approved, becomes the standard by which authorized local agencies regulate OWTS. The Policy requires the appropriate RWQCB - in this case the Central Valley RWQCB (CVRWQCB) - to review the LAMP, and when it is deemed in compliance with Policy requirements, to give its approval. An approved LAMP is equivalent to a "Conditional Waiver of Waste Discharge Requirements" for OWTS within the local agency jurisdiction. This document constitutes the EMD LAMP for OWTS in Sacramento County. The Sacramento County LAMP consists of an Introduction and five Parts:

Introduction	
Part One:	Responsibilities and Duties
Part Two:	Sacramento County Code Section 6.32
Part Three:	Sacramento County OWTS Guidance Manual
Part Four:	Policies
Part Five:	Other

Parts one through three are self-explanatory. Parts four and five, Policies and Other, address additional Tier 2 Policy requirements that are not specifically addressed by the Responsibilities and Duties, Ordinance, or Manual. Altogether, EMD believes that this LAMP meets or exceeds the intent of the Policy by providing an OWTS local regulatory framework that protects public health, the environment, and groundwater resources to the greatest extent practicable.

SACRAMENTO COUNTY

LOCAL AREA MANAGEMENT PROGRAM (LAMP)

PART ONE

RESPONSIBILITES AND DUTIES

Section 3 of the Policy describes the *Local Agency Requirements and Responsibilities*. The following identifies how EMD will implement each section of the Policy.

EMD will implement this Local Area Management Program (LAMP) in accordance with Tier 2 of the Policy once the LAMP is approved by the CVRWQCB. EMD 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 are no Clean Water Act section 303(d) impaired water bodies in Sacramento County identified by the State Water Resources Control Board. If a 303(d) impaired water body is 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 Califorina Environmental Data Exchange Network (CEDEN).

Permanent Records

EMD will retain all permanent records and will make them available within ten (10) working days upon written request by the CVRWQCB. All permitting actions are also available to the public on the EMD website at www.emd.saccounty.net.

EMD will maintain the number, location and permit description of any variance granted.

Fifth Year Report – Every fifth year EMD 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 EMD 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.

EMD will notify a 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.

EMD is a member of Sacramento Area Water Works Association (SAWWA) and will maintain a contact list for each water system to make these notifications.

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

- Regulated small water systems in Sacramento County (SWS),
- Wells within Sacramento County that are monitored as part of the Statewide Groundwater Ambient Monitoring and Assessment (GAMA) program,
- A monitoring well network at the Ranch at Clay Station (the Ranch) subdivision, and
- A monitoring well network at the Sheldon Hills III subdivision.

The two referenced subdivisions are all serviced by OWTS. The Ranch has over 200 lots served by individual water supply wells and OWTS. The Ranch OWTS operate under Waste Discharge Requirements issued to EMD as the Sewer Maintenance District. A map showing the geographic distribution of monitored small water systems, the Ranch, and Sheldon Hills subdivisions is on Appendix A.

Regulated SWS are monitored at a frequency established by the California Department of Public Health (CDPH). The Ranch monitoring wells are sampled once per calendar quarter. The Sheldon Hills III monitoring wells are sampled infrequently, but not less than once every three years. Each well is sampled for nitrates and pathogens at a minimum; additional analytes are tested in samples collected from SWS wells as prescribed by CDPH regulations. EMD maintains the results of all water well and monitoring well testing in its electronic imaging system. All information in the electronic imaging system is available for public review on the EMD website www.emd.saccounty.net.

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

Corrective Actions – EMD has an established OWTS Enforcement Policy. This Policy has been included in Part 4 Policies of the LAMP, and addresses all of the requirements of Tier 4 – OWTS Requiring Corrective Actions.

SACRAMENTO COUNTY

LOCAL AREA MANAGEMENT PROGRAM (LAMP)

PART TWO

Sacramento County Code Section 6.32

ONSITE MANAGEMENT OF WASTEWATER

Article 1 General Provisions

6.32.000 Authority and Findings

The Board of Supervisors for the County of Sacramento adopts these standards pursuant to California Health and Safety Code Section 101000 et seq. and Sacramento County Code Section 2.15.030 authorizing the Environmental Management Department to adopt ordinances, regulations, and orders pertaining to environmental health and sanitation. Furthermore, these standards are adopted pursuant to the Porter Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) to ensure surface and ground waters are adequately protected for current and future uses.

6.32.010 Purpose

The purpose of this chapter is to:
(a). Protect the health, safety and general welfare of County residents by ensuring that no person allows untreated or inadequately treated wastewater to contaminate the waters of the State or create a public nuisance.

(b). Establish an administrative framework for a comprehensive on-site wastewater management program by adopting minimum standards for the siting, design, construction, installation, repair, modification, operation, replacement, maintenance, monitoring, and destruction of on-site wastewater treatment systems and for the storage, processing, treatment, handling and transportation of wastewater within the County of Sacramento.

(c). Provide a means to ensure compliance with a comprehensive wastewater regulatory program.

(d). Ensure compliance with standards, laws, and guidelines adopted, and or modified by the County of Sacramento and the State of California.

6.32.020 Scope and Applicability

(a). The standards contained in this Chapter shall encompass all areas within the County of Sacramento under the jurisdiction of the Department and except as allowed by subsection (b) of this provision, shall apply to:
(1). The siting, design, construction, installation, repair, modification, operation, replacement, maintenance, and destruction of new and existing on-site wastewater treatment systems that discharge less than 5000 gallons per day, whether proposed as part of a new installation, repair, modification, land subdivision, building permit, land-use permit, or special event unless otherwise specified in this Chapter.
(2). The construction, installation, and operation of on-site wastewater processing facilities and on-site wastewater treatment facilities, or any other facility receiving and or storing and or handling wastewater within the County of Sacramento.
(3). The construction, installation, operation, and maintenance of portable toilets, vault privies and wastewater holding tanks.
(4). Those businesses and their vehicles removing the contents from or engaged in the cleaning of septic tanks, grease traps, portable toilets, and any other tank or vault designed to effectively hold and or treat wastewater unless otherwise exempted by law.
(5). Those business engaged in the rental or leasing of portable toilets and wastewater holding tanks for the purpose of providing a temporary or permanent means of sewage disposal.
(6). All land divisions, lot line adjustments, entitlements, and use permits applied for or issued after the effective date of this ordinance that involve parcels and or activities requiring on-site wastewater treatment or proposing to store and or handle sewage.

(b). These standards shall not apply to on-site wastewater treatment systems, wastewater holding tanks, vault privies, portable toilets, or on-site wastewater processing and or treatment facilities regulated by a State or Federal Department or other County agency for the purpose of protecting public health and the environment provided such regulation is to the satisfaction of the Department and or the local Health Officer.

(c). Notwithstanding Section 6.32.040 of this Chapter, the Department may grant exceptions from the provisions of this Chapter for on-site wastewater treatment systems, wastewater holding tanks, and vault privies in use prior to the adoption of this ordinance and for structures which have been destroyed due to fire or natural disaster and which cannot be reconstructed in compliance with these provisions.

(d). Nothing contained in this Chapter shall be construed to prevent the Department from requiring compliance with more protective standards than those contained herein, where such standards are essential to maintain a safe and sanitary condition.

6.32.030 Definitions

As used in this chapter:

“Alternative system” means an on-site wastewater treatment system requiring supplemental treatment or a system designed to address unfavorable site conditions such as high groundwater, impervious soil formations, unacceptable percolation rates, and disposal field size limitations. For the purposes of this Chapter, an alternative system does not include a standard gravity flow or pressure dosed system, or an experimental system.

"As-built drawing" means a drawing that depicts the final placement of an on-site wastewater treatment system once it has been installed.

"Beneficial uses of the waters of the State” shall mean but not be limited to the use of water for domestic, municipal, agricultural and industrial processes; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves (California Water Code 13050(f)).

"Certification of Completion" means a certificate issued by the Department indicating an on-site wastewater treatment system was installed in accordance with this Chapter, the On-site Wastewater Management Guidance Manual, and any other conditions placed on the construction permit by the Department.

“Cesspool” means an excavation into the earth that is used for the reception, storage and disposal of untreated water carried sewage.

"Chemical toilet" means a watertight, portable, self-contained toilet which may contain an environmentally safe bactericide and or deodorant. A chemical toilet serves the same purpose and has the same meaning as a portable toilet.

“Construction Permit” means a written document issued and signed by the Department, which authorizes the permittee to begin the construction, installation, modification, replacement, or repair of an on-site wastewater treatment system, vault privy, wastewater holding tank, or wastewater treatment and or processing facility.

“Construction Site” means the location on which actual construction of a building is in progress (California Health and Safety Code 5416).

“Contamination” means impairment to the quality of the waters of the State from wastewater to a degree which creates a hazard to public health through toxicity or through the spread of disease. Contamination shall include any equivalent

effect resulting from the disposal of wastewater, whether or not waters of the state are affected (California Health and Safety Code 5410(d)).

“Deep Trench” means any excavation into the earth that is longer than it is wide, extends into a permeable soil stratum, but not into a subterranean water-bearing stratum, is intended to accept and dispose of septic tank effluent, and the bottom of which terminates more than five (5) feet below ground surface.

“Department” means the Environmental Management Department for the County of Sacramento.

"Development" means the uses to which the land which is the subject of a map shall be put, the buildings to be constructed on it, and all alterations of the land and construction incident thereto (California Government Code 66418.1).

“Director” means the Director for the Environmental Management Department for the County of Sacramento.

"Disposal Field" means an area located on a parcel, above or below ground surface, and having suitable soil conditions to effectively receive, disperse, and or dispose of treated or untreated septic tank effluent in a manner compliant with this Chapter and the On-site Wastewater Management Guidance Manual.

"Disposal Field Bed" means any excavation into the earth that is wider than three feet, extends into a permeable soil stratum, but not into a subterranean water-bearing stratum, is intended to accept and dispose of septic tank effluent, and the bottom of which terminates less than five (5) feet below ground surface.

"Disposal Field Bottom” means the bottom of a disposal field bed, trench, or pit.

“Domestic Strength Wastewater” means wastewater normally discharged from or similar to that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities and garbage disposals. Domestic wastewater does not include industrial/commercial-process water and will typically have total suspended solids of 300 mg/l and an available 5-day biochemical oxygen demand less than 300 mg/l.

“Drainage system” means and includes all the piping within public or private premises that conveys wastewater to a point of disposal, but does not include the mains or laterals of a public sewerage system.

“Effective Absorptive Area” means sidewall or bottom area of a disposal field bed, trench or pit, located below the point at which effluent is released from the disposal field distribution piping, and consisting of undisturbed native soil strata having acceptable percolation rates and or soil texture classifications meeting the requirements this Chapter and the On-site Wastewater Management Guidance Manual.
"Effective Absorptive Soil" means soils with acceptable percolation rates and or soil texture classifications meeting the requirements of this Chapter and the On-site Wastewater Management Guidance Manual.

“Effluent” means the wastewater discharged from any on-site wastewater treatment system.

“Experimental System” means any alternative system that:
a. Does not have design guidelines adopted by the State Water Resources Control Board or the Department or,
b. Is a proprietary device or method that has not yet been evaluated and approved by the State Water Resources Control Board or the Department.

”Failure" means an on-site wastewater treatment system, vault privy, wastewater holding tank, or sewage pump-out station that:

a. Fails to accept wastewater, thereby creating backup of wastewater into the structure served by the on-site wastewater treatment system or wastewater holding tank.
b. Discharges untreated or inadequately treated wastewater to ground surface, or waters of the State.
c. No longer functions at the designed flow rate.
d. Causes contamination or pollution to groundwater.
e. Is not operated in compliance with permit requirements for operation, monitoring, and maintenance as specified in this Chapter or the On-site Wastewater Management Guidance Manual.
f. Results in the upward migration or ponding of wastewater above a tank or in a disposal field area.
g. Has non-functioning mechanical and or electrical devices including but not limited to pumps, valves, control panels, or disinfection units.
h. Results in the day-lighting of wastewater from the sides of a disposal field mound or from the side of a cut and fill bank.
i. Allows for the seepage of wastewater through the bottom or sides of a septic tank, pump tank, holding tank, or vault due to defects in material craftsmanship, natural environmental processes, material deterioration or structural defects.
j. Has a static wastewater level above the bottom of the effluent outlet in the septic tank or pump tank.

"Floodway" means areas of land subject to annual flooding from surface waters or rainwater runoff.

"Graywater" means untreated wastewater which has not been contaminated by toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and which does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. Graywater includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs but does not include wastewater from kitchen sinks or dishwashers (California Water Code 14876).

“Grease Trap” means a plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept non-petroleum fats, oil, or grease from a wastewater discharge. For the purpose of this Chapter, a grease trap shall also include a grease interceptor.

"Groundwater" means all water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water that flows in known and definite channels (California Water Code 10752).

“High Strength Wastewater” means wastewater from an establishment, home, or business having a biochemical oxygen demand greater than 300 mg/L or total suspended solids greater than 300 mg/l.
“Holding tank” means any watertight container designed to receive and store wastewater for disposal at another location.

"Industrial/Commercial-processed water", means wastewater from commercial or manufacturing operations that is not sewage but could contain products detrimental to human health or waters of the State.

“Land Use Project” means any entitlement process for development requiring a discretionary action and includes but is not limited to tentative subdivision maps, rezones, parcel maps, use permits, certificates of compliance, and boundary line adjustments.

"Licensed Installer" shall mean an individual possessing a current General A Engineering, C-42, or C-36 license issued by the State of California.

"Liquid Waste" means all nonhazardous wastes that are neither solid nor gaseous.

“Lot” means a parcel of land. (SCC 574 § 2, 1983.)

“Modification” as in system modification, means any addition to or change in the layout of an existing on-site wastewater treatment system, wastewater holding tank, vault privy, or sewage pump-out station for purposes other than to address a failure.

"Nuisance" means anything which:
(a) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, and
(b) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal, and (c) occurs during, or as a result of, the treatment or disposal of wastes (California Health and Safety Code 5410(f)).

“On-site Wastewater Processing and or Treatment Facility” means all contiguous land and structures, other appurtenances, and improvements on the land used for the processing and or treating of wastewater whereby such actions accomplish a measurable reduction in wastewater strength or composition. Such actions shall include but not be limited to the reduction of solids or organics, dewatering, coagulation, settling, filtration, aeration, and anaerobic digestion.

“On-site Wastewater Treatment System” means any system of piping, tanks, and or disposal fields that effectively collect and or hold and or treat and or disposes of sewage without the use of community wide sanitary sewers or sewage systems.

“On-site Wastewater Management Guidance Manual” means a manual developed by the Department containing guidelines for the siting, design, installation, operation, and maintenance of on-site wastewater treatment systems, wastewater holding tanks, vault privies, portable toilets and may include guidelines for the use of any other tank or device designed to effectively hold, treat, or dispose of wastewater.

“Parcel” means a piece of land shown upon a subdivision map, record of survey map, or described by metes and bounds that has been recorded in the County or appropriate City recorder’s office.

"Pollution" means an alteration in the quality of waters of the State by waste to a degree which unreasonably affects:
(a) such waters for beneficial uses, or
(b) facilities which serve such beneficial uses. "Pollution" may include "contamination” (California Health and Safety Code 5410(e)).

"Portable toilet" means a watertight, portable, self-contained toilet which may contain an environmentally safe bactericide and or deodorant. A portable toilet serves the same purpose and has the same meaning as a chemical toilet.

“Pressure Dosed On-site Wastewater Treatment System” means a standard on-site wastewater treatment system utilizing pressure dosing technology to distribute septic tank effluent throughout the disposal field.

“Pressure Dosing” means a method of effluent distribution designed to distribute wastewater equally and evenly throughout a disposal field by placing the effluent under pressure in a distribution pipe.

“Privy” means a structure or outbuilding intended or used for the reception of human excreta and under which is a pit or watertight vault.

"Public Entity" means a local agency, as defined in the State of California Government Code Section 53090 et seq., which is empowered to plan, design, finance, construct, operate, maintain and to abandon, if necessary, on-site

wastewater treatment system and on-site wastewater treatment facilities serving a land development. In addition, the entity shall be empowered to have supervision over the location, design, construction, operation, maintenance, and abandonment of on-site wastewater treatment systems within a land development, and shall be empowered to design, finance, construct, operate, and maintain any facilities necessary for the disposal of wastes pumped from the individual on-site wastewater treatment systems and to conduct any monitoring or surveillance programs required for water quality control purposes.

“Public sanitary sewer” means a sewage disposal system operated and maintained by a municipality, district or public corporation organized and existing under and by virtue of the laws of the State of California.

“Registered professional” means an individual who possesses a current Registered Environmental Health Specialist certificate issued by the State of California, or is currently licensed with the State of California as a civil engineer or professional geologist.

“Repair” as in system repair, means the installation, replacement, and or relocation of any portion or portions of an on-site wastewater treatment system, wastewater holding tank, vault privy, or sewage pump-out station necessary to correct a failure, eliminate a public health hazard, or prevent contamination.

“Replacement” as in system replacement, shall have the same meaning as “repair”.

"Restrictive layer" means low permeability earth materials including rock, hard pan, or other type of restrictive layer which will prevent or significantly retard the downward migration of wastewater.

“Seepage pit” means an excavation into the earth that is circular in circumference, deeper than it is wide, extends into a permeable soil stratum, but not into a subterranean water-bearing stratum, filled with gravel, rock, or similar material, used for the disposal of septic tank effluent, and is protected at the top with a concrete cover.

“Septage” means materials accumulated in septic tanks, cesspools, vault privies, portable toilets, holding tanks, or any other sewage holding apparatus that receives bodily waste or wastewater from plumbing fixtures. Septage does not include sewage sludge from municipal or community sewage treatment plants.

“Septic tank” means a watertight receptacle with a minimum of two compartments that is intended to receive the discharge from a drainage system or part thereof and is designed and constructed so as to retain solids, digest organic matter through a period of detention, and allow clarified effluent, but not scum or solids to discharge into a disposal field meeting the requirements of this Chapter and the On-site Wastewater Management Guidance Manual.

"Sewage" means liquid waste typically associated with human occupancy and includes wastewater from toilets, kitchen sinks, and dishwashers, but does not include graywater provided the graywater is not mixed with sewage.

“Sewage pump-out station” means a system of hoses, pumps, pipes, and possibly tanks that are designed to remove and or transfer wastewater from a vehicle or marine vessel’s wastewater holding tank for discharge into an on-site wastewater treatment system or wastewater holding tank.

“Shallow Trench” means any excavation into the earth that is longer than it is wide, extends into a permeable soil stratum, but not into a subterranean water-bearing stratum, is intended to accept and dispose of septic tank effluent, and the bottom of which terminates less than five (5) feet below ground surface.

“Site Evaluation” means an assessment of the characteristics of a parcel sufficient to determine its suitability for the installation and sustainability of an on-site wastewater treatment system meeting the requirements of this Chapter and the On-site Wastewater Management Guidance Manual. A site evaluation shall take into consideration all public and

environmental health aspects relating to the installation and operation of an on-site wastewater treatment system including but not limited to anticipated wastewater flow, anticipated wastewater strength, soil texture, soil percolation rate, depth to groundwater, distance from natural land features and structures, site topography, and useable space for the installation and repair of the wastewater disposal fields.

“Site Evaluation Report” means a report prepared by a registered professional or other individual approved by the Department that includes all information obtained from a site evaluation including detailed information regarding the design parameters of the on-site wastewater treatment system. The report will be used by the Department to ensure that a parcel is capable of sustaining an on-site wastewater treatment system compliant with this Chapter and the On-site Wastewater Management Guidance Manual.

"Standard System" means an on-site wastewater treatment system comprised of a two-compartment septic tank for primary treatment and a drain field for the dispersal and disposal of the effluent. The effluent will flow to the disposal field by gravity, or may be pumped to the first distribution box in the disposal field area.

"Substandard Tank" means any tank constructed of wood or brick, or any tank constructed of concrete, fiberglass, polyethylene, or other similar material which is deteriorated to an extent that it cannot effectively hold and or treat wastewater, or because of its condition poses a threat to public health or safety.

"System Evaluation" means an expression of professional opinion stating that an existing on-site wastewater treatment system, wastewater holding tank, or vault privy is constructed and operating in compliance with the standards set forth in this Chapter and the On-site Wastewater Management Guidance Manual. Evaluations shall be performed by a licensed installer or other individual approved by the Department and shall not constitute a warranty or guarantee either expressed or implied.
“Treatment” means any process or action that accomplishes a measurable reduction in wastewater strength or separation of liquid from solids, such as the reduction of solids or organics, dewatering, coagulation, settling, filtration, or aeration.

“Useable Space” means a dedicated area of land on a parcel capable of sustaining the installation and operation of an on-site wastewater treatment system compliant with this Chapter and the On-site Wastewater Management Guidance Manual.

“Waste” means sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature (Health and Safety Code 5410).

“Wastewater” as used in this Chapter shall mean liquid waste typically associated with human occupancy that includes wastewater from toilets, kitchen sinks, and dishwashers, and may include graywater or other liquid waste determined by the Department to be detrimental to public health and or the environment if not properly handled, treated, and or disposed of. For the purpose of this Chapter, wastewater shall not include hazardous waste as defined in Section 25115 and 25117 of the California Health and Safety Code.

“Wastewater Hauler” means any person or firm carrying on or engaging in the business of removing, and or disposing of the contents from septic tanks, portable toilets, cesspools, sewage seepage pits, grease traps, holding tanks, or any other tank or vault used to hold and or treat wastewater.

"Waters of the State" means any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code 13050(e)).

6.32.040 Prohibitions

Unless otherwise stated in this Chapter, no person shall:

(a). Excavate, construct, install, repair, modify, operate, replace, maintain, or destroy any on-site wastewater treatment system, portable toilet, vault privy, wastewater holding tank, sewage pump-out station, on-site wastewater processing and or treatment facility, or wastewater hauling vehicle in any manner that results in said wastewater to overflow lands, collect on ground surface, back up into buildings, empty, flow, spill, seep or drain in any manner that will result in contamination, pollution or a nuisance.

(b). Allow any wastewater with strength greater than that of domestic wastewater to flow or be deposited into any on-site wastewater treatment system unless such wastewater can be treated to an extent consistent with this Chapter and the On-site Wastewater Management Guidance Manual. Disposal of such wastewater may require approval by the State Water Resources Control Board.

6.32.045 System Failure

Unless otherwise mitigated with the Department, it shall be unlawful to operate a failed on-site wastewater treatment system, wastewater holding tank, vault privy, or sewage pump-out station. At the Department's discretion, an on-site wastewater treatment system, holding tank, or vault privy may be determined to having failed if there is circumstantial evidence near the location of the system, tank, or privy supporting a failure. Such evidence may include but is not limited to the presence of siphoning hoses, sump pumps, diversion ditches, or wastewater solids at or near the location of the system, tank, or privy.

6.32.050 Sewage Disposal Means Required

(a). It shall be unlawful to maintain or use any residence, place of business or other such building or place where persons reside, congregate or are employed which is not connected to an approved on-site wastewater treatment system, public sewer system, or other method of sewage disposal meeting the standards set forth in this Chapter, the On-site Wastewater Management Guidance Manual or by the Health Officer for the County of Sacramento.

(b). Notwithstanding Section 6.32.040 and 6.32.060, existing on-site wastewater treatment systems permitted by the Department prior to the adoption of this ordinance shall be considered in compliance with the provisions of this Chapter and the On-site Wastewater Management Guidance Manual until such time that a failure occurs or a permit pursuant to Section 6.32.190 of this Chapter is required.

6.32.060 Pit Privies, Cesspools, and Substandard Tanks

No person shall construct, install, use, or continue to allow in existence any pit privy, cesspool, or substandard tank intended to hold and or treat sewage. Furthermore, any person firm or corporation that repairs, cleans, maintains, or removes sewage from such pit privy, cesspool, or substandard tank shall provide to the Department within seven days of performing said work the address of the property on which such pit privy, cesspool, or substandard tank exists.

6.32.070 Unattended and Abandoned Excavations

(a). No person shall leave unattended an open excavation posing a threat to persons or animals without properly fencing, covering, or backfilling such excavation to the satisfaction of the Department. Open excavations shall include but not be limited to open septic tanks, seepage pits, and trenches.

(b). It is unlawful to allow to remain in existence any underground septic tank, pump tank, wastewater holding tank, cesspool, pit privy or privy vault, that has been abandoned, discontinued from further use, or to which such property

has been connected to public sewer. Such tank, vault, or cesspool shall have the wastewater and solids removed and shall be permanently removed or destroyed in a manner approved by the Department. A construction permit pursuant to Article 3 of this Chapter may be required.

6.32.080 On-site Wastewater Management Guidance Manual

The On-site Wastewater Management Guidance Manual shall provide direction for the design, construction, installation, repair, and material specifications for on-site wastewater treatment systems, wastewater holding tanks, portable toilets, and vault privies.

6.32.083 Construction Material and Component Installation

All components of on-site wastewater treatment systems, wastewater holding tanks, or any other tank, vault, or device used to effectively receive, hold, treat, disperse, or dispose of wastewater shall be constructed of material, installed in a manner, and maintained in a way to be compliant with this Chapter and the On-site Wastewater Management Guidance Manual unless otherwise approved by the Department.

6.32.090 Variances

The Department may grant variances from the provisions of this Chapter on a case-by-case basis.

6.32.100 Denial of a Permit

No permit shall be issued by the Department for the installation, construction, repair, modification, replacement, operation, maintenance, or destruction of any on-site wastewater treatment system, on-site wastewater processing and or treatment facility, wastewater holding tank, vault privy, or any other means for the disposal, common treatment

of, or discharge of sewage, if the proposed means are not in compliance with this Chapter and the On-site Wastewater Management Guidance Manual.

6.32.110 Changes Ordered by the Department

In the event of new or unforeseeable conditions, the Department may order reasonable changes in the method, means, manner and place for the disposal, treatment or discharge of sewage, in order that the same shall not constitute a menace to the health of human beings, animals, or a public nuisance. The orders of the Department shall designate the period within which such changes are to be made. (SCC 247 § 2 (part), 1976.)

6.32.120 Right of Entry

The Department shall have the authority, as described in this paragraph, to enter upon a premise to conduct investigations and inspections as necessary to determine compliance with this Chapter and the On-site Wastewater Management Guidance Manual. If such premises are occupied, the Department shall first present proper credentials and request entry. Should the premise be unoccupied, the Department, prior to entering the premise, shall make reasonable effort to locate the owner or person having charge or control of the same and request entry. If such entry is refused, the Department shall have recourse to such remedies as are provided by law to secure entry.

6.32.125 Special Permits

A permit may be required for the storage and or transport of any waste in liquid form, where in the opinion of the Department could result or potentially result in a public nuisance if not properly handled, stored, transported and or

disposed of. Such liquid waste subject to a permit may include but is not limited to liquefied animal by-products, car wash waste, sewage, and processed water. Special permits issued by the Department shall be on such terms and conditions as the Department prescribes and shall be enforceable pursuant Article 10 of this Chapter.

6.32.130 Liability

This Chapter and the On-site Wastewater Management Manual shall not be construed as imposing upon the County of Sacramento any liability or responsibility for damage resulting from the defective design, construction, alteration, or relocation of any on-site wastewater treatment system, on-site wastewater processing or treatment facility, wastewater holding tank, sewage pump-out station, or vault privy, nor shall the County of Sacramento or any official or employee thereof be held as assuming any such liability or responsibility by reason of any inspection authorized or permit issued hereunder.

6.32.140 Fees

Pursuant to Sacramento County Code Title 6, Chapter 6.99 et. al., the Department may impose fees for any permit, site evaluation, plot plan review, inspection, consultation, or enforcement action referred to in this Chapter.

6.32.150 Subdivisions and Lot Line Adjustments

(a). Parcels created after the effective date of this ordinance shall have a minimum size of two acres if using both on-site wastewater treatment and private well. Parcels connecting to a public water system but requiring the use of on-site wastewater treatment shall have a minimum parcel size of one acre.

(b). Lot line adjustments and subdivisions to existing parcels currently serviced by on-site wastewater treatment systems shall be prohibited when such actions interfere with the original siting, design, construction, or operation of an existing system including the reserve disposal field area. The applicant for such project may be subject to a system evaluation as defined in Section 6.32.030 of this Chapter.

6.32.160 Building Projects and Changes in Use.

(a). No parcel shall be improved beyond its capacity to properly absorb sewage effluent by the means provided in this Chapter and the On-site Wastewater Management Guidance Manual.

(b). Unless otherwise stated in subsection(e), any person proposing to develop property that requires the use of an on-site wastewater treatment system, whether for new construction, remodel, addition or replacement must first obtain approval from the Department. The person proposing such development shall submit to the Department a copy of the general plot plan and a copy of the floor plan for project evaluation. The plans shall comply with Section 6.32.220 of this Chapter and may be subject to a plot plan review fee. A site evaluation or system evaluation pursuant to this Chapter may be required by the Department prior to plan approval.

(c). A site evaluation or system evaluation as stated in subsection (b) above, may be waived by the Department for building projects and changes in use if:
(1). The department has sufficient knowledge of site and soil conditions supporting the use of a new on-site wastewater treatment system, or
(2). The parcel is currently serviced by an on-site wastewater treatment system, and the Department has sufficient information on file for the system to determine that:
(A). The existing on-site wastewater treatment system is able to accommodate the potential increase in wastewater flow or wastewater strength, and

(B). The project will not significantly impact the initial or replacement disposal field areas or restrict access to any serviceable component of the on-site wastewater treatment system including but not limited to a septic tank, pump tank, or distribution box.

(d). Unless otherwise stated in subsection(e), a use permit or building permit shall not be issued for a parcel, place of business, or building project requiring the use of a new or existing on-site wastewater treatment system without prior approval from the Department.

(e). Department approval shall not be required when the building project or change in use does not:
(1). Increase the existing structures footprint.
(2). Add additional bedrooms or increase seating capacity.
(3). Increase wastewater strength beyond that of domestic strength wastewater.
(4). Add additional structures or outside fixtures which may impact any component of an existing on-site wastewater treatment system including the reserve disposal field area. Such structures and outdoor fixtures shall include but are not limited to garages, barns, sheds, built-in swimming pools, and driveways.

6.32.170 License Requirement

It is unlawful for any person, firm or corporation to carry on, contract to perform, or engage in the business of constructing, altering, relocating or repairing an on-site wastewater treatment systems without meeting the definition of a licensed installer, unless that person is the owner of the property on which such work is to be performed.

6.32.180 Sewage Maintenance Districts

All subdivisions having 100 lots or more or subdivisions which, in the opinion of the Department, may have negative impacts on water quality or public health shall be required to form or join a public entity (e.g. a Sewage Maintenance District) responsible for the maintenance of those on-site wastewater treatment systems or wastewater treatment works within that subdivision.

6.32.190 Construction Permit—General

(a). Unless otherwise stated in Section 6.32.210, a construction permit shall be required prior to the installation, modification, repair, replacement, or destruction of an on-site wastewater treatment system.

(b). A construction permit shall not be issued for the installation, repair, or modification of an on-site wastewater treatment system, when the property line of a parcel upon which said work is to be performed is within 200 feet of public sewer without prior written approval from the servicing sewer district.

(c). Any person attempting to obtain a construction permit shall first apply to the Department using such forms as the Department prescribes.

(d). A nonrefundable construction permit fee shall be paid to the Department at the time of application submittal.

(e). At the discretion of the Department, an applicant for a construction permit to install multiple on-site wastewater treatment systems on a single parcel or individual systems on adjacent parcels may be required to complete a separate construction permit for each system installed. An additional fee pursuant to Sacramento County Code Title 6, Section 6.99 et al. may be charged to defray the costs of administration and inspection of such systems.

(f). A site evaluation or system evaluation pursuant to this Chapter may be required by the Department prior to the approval of a construction permit.

(g). A construction permit shall be valid for one year. Permit extensions will be considered by the Department on a case-by-case basis and may be subject to a permit renewal fee.
(h). Unless the Department determines otherwise, any condition of approval placed on a construction permit by the Department whether for design, construction, operation, maintenance or any other requirement necessary to ensure public safety and preserve the quality of ground or surface waters shall be binding for the life of the on-site wastewater treatment system.

(i). All construction permits issued by the Department shall be subject to inspection by Department staff during all phases of the project to ensure compliance with this Chapter, the On-site Wastewater Management Guidance Manual, and any conditions placed on the issued permit.

(j). Mandatory construction inspections, if required, shall be scheduled with the Department by the licensed installer or registered professional a minimum of 24 hours in advance and during normal business hours.

(k). No on-site wastewater treatment system shall be covered, concealed, or put in use until the Department has issued a Certificate of Completion pursuant to Section 6.32.230 of this Chapter.

6.32.200 Construction Permit—Application Requirements

Unless the Department specifies otherwise, an application for a construction permit will only be accepted by the Department when:

(a). A site evaluation report or system evaluation pursuant to this Chapter has been submitted to and approved by the Department.

(b). A general plot plan showing the placement of the on-site wastewater treatment system in relationship to the overall developmental plan for the property has been provided to the Department . The general plot plan must match the building permit plot plan if applicable and must verify that the on-site wastewater treatment system and replacement disposal field area can be installed in compliance with this Chapter and the On-site Wastewater Management Guidance Manual.

(c). A scaled layout of the on-site wastewater treatment system has been provided to the Department.
(1). The layout shall provide the details specified in Section 6.32.220 of this Chapter and shall show all components of the on-site wastewater treatment system.
(2). The layout shall also include a cross-sectional drawing showing the depth from original grade of the on-site wastewater treatment system components. The layout must provide adequate detail to serve as a guide for construction and provide sufficient information to assure the Department that vertical separation requirements to groundwater and or restrictive soil layers can be met while achieving the minimum required fall for all on-site wastewater treatment system components as required by this Chapter and the On-site Wastewater Management Guidance Manual.

6.32.210 Construction Permit—Exceptions

(a). A construction permit shall not be required for the following provided the Department is notified prior to the beginning of such activity.
(1). To replace tight lines or clear stoppages in pipes.
(2). For servicing or replacing installed mechanical or electrical parts such as float switches, pumps, and electrical boxes.
(3). To replace sanitary tees in septic tanks.
(4). For minor structural corrections to the septic or pump tank such as riser or lid replacement.

(5). To repair or clear stoppages in a distribution box provided the box is not altered, modified, or replaced.
(6). To repair or replace the sewer line from the house to the tank or from the tank to the distribution box.

(b). Special Considerations for System Repairs
In case of an immediate threat to public health and safety or pollution to ground or surface waters, an emergency repair may be made prior to obtaining a construction permit from the Department provided that all reasonable efforts have been made to notify the Department of such repair and that a construction permit is obtained within 72 hours from the commencement of such work. The repair shall be subject to inspection pursuant to Section 6.32.230 of this Chapter. Nothing in this section shall prevent the Department from requiring that the emergency repair be evaluated by a registered professional or from the Department requiring soil studies and or percolation tests as described in this Article.

6.32.220 Construction Permit—Plan Details

Unless otherwise approved by the Department, submitted plans must include a detailed drawing of the on-site wastewater treatment system. The plans must clearly show the exact locations of the following whether existing or proposed:

(a). Vicinity map,
(b). Scale used,
(c). Lot dimensions, including all property lines,
(d). Setbacks and side-yards,
(e). Paved areas and unpaved areas subject to vehicular traffic,
(f). Easements and rights-of-way, public and private,
(g). Structures, dwellings (including pools and auxiliary buildings),
(h). Animal enclosures,
(i). Fuel tanks, hazardous material storage,
(j). Plumbing stub-out,
(k). Water lines (public and private),
(l). Areas subject to flooding, inundation, stormwater overflow, or ten-year storm event,
(m). Existing and proposed wells, abandoned wells, springs, neighboring wells, streams, ditches, canals, culverts, ponds, lakes, swales, vernal pools, ten-year flood plains, or any body of water (intermittent or perennial) located within 100 feet of property lines,
(n). Existing and proposed on-site wastewater treatment systems (including replacement areas), abandoned septic tanks, pretreatment and storage devices, sewer lines, storm sewers,
(o). Soil profile test holes, percolation test holes, groundwater observation wells,
(p). Percent and direction of slope in disposal field area and 50 feet adjacent to it on all sides. A contour map is recommended and may be required by this Department depending on conditions observed at the site,
(q). Trees within ten feet of sewage disposal areas (including replacement areas),
(r). Underground utilities within ten feet of on-site wastewater treatment system (including replacement area),
(s). Cut banks, unstable land forms, bluffs and ravines,
(t). Floor plan (including number of bedrooms).

6.32.230 Construction Permit—Final Inspection and Certificate of Completion

(a). A final inspection of the on-site wastewater treatment system shall be conducted by Department staff to ensure compliance with this Chapter, the On-site Wastewater Management Guidance Manual, and any conditions placed on the construction permit.

(b). The final inspection shall be scheduled by the installer or the registered professional with the Department during normal business hours and at least two working days prior to the requested inspection date.

(c). A construction permit shall not be considered finaled until the following has occurred:

(1). The Department has determined that the on-site wastewater treatment system has been installed in compliance with this Chapter, the On-site Wastewater Management Guidance Manual, and any conditions placed on the construction permit by the Department.
(2). An as-built drawing, as described in subsection (d) of this provision, signed by either the installer or registered professional, has been received and accepted by the Department.
(3). The registered professional, having designed the system, has submitted written documentation to the Department verifying that the system was constructed in substantial conformance with the proposed design.
(4). The registered professional or licensed installer has provided the Department and the homeowner or property owner with an operation and maintenance manual for the installed system pursuant to Section 6.32.250(c)(3).
(5). If required by the Department, the owner of record for the property on which the on-site wastewater treatment system was installed, repaired, or modified has obtained an annual operating permit pursuant to this Article.

(d). An as-built drawing of the installed on-site wastewater treatment system shall be prepared by the licensed installer or the registered professional. At a minimum, the as-built drawing shall include:

(1). Location of septic and pump tanks
(2). Location of all distribution boxes and diversion valves.
(3). Location of all disposal field components (i.e. leach lines, seepage pits, etc).
(4). The site address including parcel number.
(5). The installation contractor's name and address.
(6). The date the system was installed.
(7). The permit number.
(8). Measurements from two fixed reference points to the installed tanks, distribution boxes, and disposal field components. The measurements must be recorded in a manner that would allow an individual to accurately locate all major components of the installed system.

6.32.240 Operating Permit—General

(a). After the effective date of this ordinance, an operating permit may be required for:
(1). New alternative and experimental on-site wastewater treatment systems.
(2). Existing alternative and experimental on-site wastewater treatment systems at the time a construction permit, pursuant to this Article, is required for the repair or modification of said system.
(3). Any existing on-site wastewater treatment systems regardless of design when the Department has determined that oversight is critical to ensure the proper functioning and longevity of the system. Examples of which may include but are not limited to parcels with insufficient area to install a replacement disposal field, systems subject to excessive peak wastewater flows, systems requiring a grease removal device, or systems requiring a variance from any provision of this Chapter or the On-site Wastewater Management Guidance Manual.

(b). Unless otherwise approved by the Department, operating permits shall be valid for one calendar year and shall be renewed annually thereafter. At the Department's discretion, the expiration date of an operating permit may be extended for an on-site wastewater treatment system provided such system is operated and maintained in compliance with this Chapter, the On-site Wastewater Management Guidance Manual, and any conditions placed on the operating permit by the Department.

(c). Operating permits shall be obtained by the property owner of the parcel on which such system is installed or by their authorized agent and shall be required for the life of the system unless the Department determines otherwise. Upon the legal transfer or sale of the property, it shall be the responsibility of the property owner to ensure that the recipient of the transfer or sale is made aware of the operating permit requirements.

(d). Operating permit applications and operating permit renewal applications shall be submitted to the Department on such forms and in such format as the Department prescribes.

(e). If required by the Department, operating permit applications and operating permit renewal applications submitted to the Department shall be accompanied by the appropriate fee pursuant to Sacramento County Code Title 6, Section

(f). The Department may suspend or revoke any operating permit it issues for failure of the permitee to make timely payment of assessed fees or comply with any terms and or conditions placed on such permit by the Department at the time of permit issuance or renewal. Upon suspension or revocation, further operation of the system shall cease until the suspension is lifted or a new annual operating permit is issued.

6.32.250 Operating Permit—Operating Requirements

(a). For on-site wastewater treatment systems requiring an annual operating permit, the property owner of the parcel on which such system is installed or their authorized agent shall:
(1). Operate the system in accordance with its design parameters.
(2). Ensure continued operation and maintenance consistent with this Chapter and the On-site Wastewater Management Guidance Manual.
(3). Report any system malfunctions resulting in surfacing sewage to the Department within 24 hours of discovery.
(4). Contact with an Operation and Maintenance Specialist within 24 hours of discovering the following conditions that could indicate a system failure or malfunction such as:
(A). Surfacing sewage in the area of the tank or leach field,
(B). Activation of the system's audible and or visual alarm,
(C). Wastewater backing up into plumbing fixtures or not flowing properly,
(5). Obtain permits, procure services, and pay fees as may be necessary to correct deficiencies in the on-site wastewater treatment system identified by the Department or the Operation and Maintenance Specialist.

(b). The Operation and Maintenance Specialist must:
(1). Meet and maintain the requirements for certification as determined by the Department,
(2). Provide all required maintenance and monitoring reports to the Department within 30 days of service,
(3). Pay any required fees to the Department for the submission of forms described in Section 6.32.260(e) of this Chapter,
(4). Report to the Department within 24 hours of discovery any system failure or malfunction that results in surfacing sewage or requires a major system repair.

(c). Operation, Maintenance, and Monitoring Manual
(1). The owners of new on-site wastewater treatment systems requiring an annual operating permit pursuant to this Chapter, shall be provided with an operation, maintenance, and monitoring manual approved by the Department and prepared by the registered professional that designed said system.
(2). The operation, maintenance, and monitoring manual will be supplemented and or updated by the licensed installer or registered professional when the system requires repair.
(3). The manual will include the following elements, as applicable:
(A). Diagrams of the system components, their interrelationship and process flow diagram,
(B). An accurate, fully dimensioned as-built drawing of the system,
(C). An explanation of the system's general function, operational expectations, owner responsibility, etc,
(D). The routine maintenance schedule,
(E). The names and telephone numbers of the registered professional, licensed installer, and certified operation and maintenance specialists,
(F). A list of proprietary system components, including manufacturer names and model numbers,
(G). Information on "troubleshooting" common operational problems that may occur with that specific system.

6.32.260 Operating Permit—Inspection Frequency and Inspection Reports

(a).Frequency of an onsite wastewater treatment system operation and maintenance inspection will be dependent on the complexity and maintenance requirements of the system components, and based upon:
(1). Manufacturer recommendations,
(2). Industry standards of practice,
(3). Conditions and or terms placed on the operating permit by the Department.

(b). On-site wastewater treatment systems requiring an annual operating permit pursuant to this Article shall meet the

inspection frequencies and maintenance checks as specified in Table 1 of this Chapter unless otherwise approved by the Department. Nothing contained in this provision shall prevent the Department from requiring more frequent inspections and maintenance checks as deemed necessary to ensure optimal system performance.

Table 1
Inspection Frequency and Maintenance Checks

Inspection Interval	(Residential) Standard or Pressure dosed System*	(Commercial) Standard or Pressure Dosed System*	Mound or Single-Pass Sand Filter	ATU or Packed-Bed Filter	Disinfection Units (Telemetry required on all disinfection units)
First 6 weeks					PL or OM (Required)
First 3 months		OM (Recommended*)	OM (Required)	PL or OM (Required)	
Monthly					
Annually	Pressure dosing system PL or LI or PO or OM (Recommended*)	OM (Recommended*)	OM (Required)		
As required by the manufacturer or NSF, but not less than once a year				PL or OM (Required)	PL or OM (Required)
Year 1-2 of cycle					
Year 3 of cycle					
Year 4 of cycle					
Year 5 of cycle	CP or LI or PO or OM (Recommended*)				

CP = Certified Pumper, LI = Licensed Installer, OM = Certified Operation, Monitoring, and Maintenance Specialist, PL = Proprietary Device Licensee (also must be certified as OM&M Specialist), PO = Property Owner.
*Standard and pressure dosed systems are subject to Section 6.32.240(a)(3) of this Chapter and may require inspections and maintenance checks should an operating permit be required.

(c). Standard and pressure dosed on-site wastewater treatment systems subject to Section 6.32.240(a)(3) of this Chapter may require inspections and maintenance checks should an operating permit be required. Inspection frequencies shall be determined by the Department on a case-by-case basis.

(d). Experimental on-site wastewater treatment systems may require effluent wastewater quality testing by Department approved third party laboratories to monitor and ensure optimal system performance. Type and frequency of effluent

wastewater quality testing shall be determined by the Department on a case-by-case basis.

(e). All inspection results shall be submitted to the Department on such forms and in such format as the Department prescribes and will not be accepted unless legible and complete. The submission of inspection reports may require a fee pursuant to Sacramento County Code Title 6, Section 6.99 et al.

6.32.270 Site Evaluation—General

(a). Unless otherwise indicated in subsection(f), a site evaluation shall be required to determine all design parameters for new on-site wastewater treatment systems and repairs or modifications to existing systems that require a construction permit pursuant to this Chapter.

(b). An application for a site evaluation shall be submitted to and approved by the Department prior to the commencement of work. The application shall be submitted to the Department on such forms and in such format as the Department prescribes. A fee shall be paid to the Department at the time of application submittal.

(c). Unless the Department approves otherwise, site evaluations shall be performed by a registered professional in collaboration with Department staff. The Department shall be notified by the registered professional, during normal business hours, a minimum of 48 hours prior to the commencement of soils testing.

(d). The site evaluation shall take into consideration the following site characteristics when determining the design for an on-site wastewater treatment system:
(1). Effective absorptive soil,
(2). Separation between disposal field bottom and groundwater or restrictive soil layers,
(3). Ground slope in the proposed disposal field areas,
(4). Influent wastewater strength and quality,
(5). Setback requirements to all components of the on-site wastewater treatment system including the reserve disposal field area, and
(6). The required level of wastewater treatment so as to not adversely affect water quality or endanger public health.

(e). All soils testing shall comply with Section 6.32.300 to 6.32.320 of this Article and the On-site Wastewater Management Guidance manual.

(f). At the discretion of the Department, the requirement for a site evaluation or specific elements thereof may be waived when the project poses a limited risk to public health, both ground and surface waters, and
(1). A site evaluation has previously been conducted in compliance with this Chapter by a registered professional or other individual approved by the Department to perform such evaluation, or
(2). The Department has reason to believe that soil conditions in a specific geographical area of the County are so homogeneous that previous site evaluations or geotechnical explorations conducted in close proximity to the proposed project area will provide sufficient information regarding soil type, percolation rate, and depth to groundwater to determine the feasibility of the project.

6.32.290 Site Evaluation—Report

(a). Following the completion of all soils testing, a site evaluation report shall be forwarded to the Department for approval.

(b). Unless the Department specifies otherwise, a site evaluation report shall contain the following information:

(1). A scaled (1”=50’ minimum) site plan identifying the location of all soils testing performed.
(2). A brief description of the methodology used to conduct the soils testing such as site topography and percolation test hole design specifications.
(3). All soils testing data including but not limited to classifications of the encountered soils and percolation test results.
(4). A scaled (1”=50’ minimum) drawing of the proposed on-site wastewater treatment system including but is not limited to:
(A). Required setbacks,
(B). Disposal field type,
(C). Required disposal field size,
(D). Location of reserve disposal field area,
(E). Disposal field design parameters (depth, width, length, rock size, pipe size, etc.)
(F). Tank size and location.

6.32.300 Site Evaluation—Soil profile

(a). For all disposal field types other than seepage pit or deep trench, a minimum of eight soil test holes will be required on each parcel to determine site suitability for an on-site wastewater treatment system. Four test holes shall be excavated in the primary and four test holes shall be excavated in the reserve disposal field areas. Seepage pit and deep trench type disposal fields shall have a minimum of one soil test hole in both the primary and reserve disposal field areas. At the discretion of the Department, additional test holes or soil analysis by hydrometer may be required to adequately characterize site conditions or show soil uniformity. The Department may approve fewer soil test holes on a case-by-case basis and shall be dependent on specific site conditions, space limitations, or uniformity in test hole soil characteristics.

(b). All soil test holes shall be excavated to Cal-OSHA standards and unless otherwise approved by the Department, must meet the requirements specified in the On-site Wastewater Management Guidance Manual for the County of Sacramento.

(c). All soil test holes shall be performed in representative areas of both the proposed primary and reserve disposal fields to adequately characterize site conditions.

6.32.310 Site Evaluation—Percolation Test

(a). For all disposal field types other than seepage pit or deep trench, a minimum of six percolation tests shall be required on each parcel to determine site suitability for an on-site wastewater treatment system. Three percolation test holes shall be performed in the primary and three percolation tests shall be performed in the reserve disposal field areas. Seepage pit and deep trench type disposal fields shall have a minimum of one percolation test in both the primary and reserve disposal field areas unless otherwise waived by the Department.
(b). At the discretion of the Department, additional percolation testing may be required to adequately characterize site conditions or show soil uniformity. Requests for fewer percolation tests may be approved by the Department and shall be determined on a case-by-case basis.

(c). Unless otherwise approved by the Department, all percolation testing shall be conducted as prescribed in the On-site Wastewater Management Guidance Manual.

(d). All percolation test holes shall be performed in representative areas of both the proposed primary and reserve

disposal fields to adequately characterize site conditions.

6.32.320 Site Evaluation—Seasonal High Groundwater Monitoring

(a). The Department may require information pertaining to seasonal high groundwater levels prior to approving a design for an on-site wastewater treatment system or a proposal for a subdivision of land to ensure compliance with groundwater separation requirements as specified in this Chapter. Areas proposing on-site wastewater treatment that are subject to monitoring include but are not limited to:
(1). Valleys, ravines, swales
(2). Areas near waterways or springs
(3). Areas with soils having confined and unconfined sand and gravel strata
(4). Areas with shallow topsoil
(5). Areas with soil strata that show mottling and or grey to black colorations.
(6). Areas with a known history of seasonal high groundwater,
(7). Areas with swampy/marshy appearances or supporting the growth of water-loving vegetation such as cattails, willows, perennial grasses.

(b). A registered professional or other individual approved by the Department shall perform all groundwater monitoring and all data shall be collected in coordination with the Department.

(c). An application shall be submitted to the Department prior to beginning of such monitoring. The application shall be submitted on such forms as the Department prescribes and may require a fee pursuant to Sacramento County Code Title 6, Section 6.99 et. al.

(d). Seasonal high groundwater monitoring shall be performed between the months of November through April unless otherwise specified by the Department and shall be conducted in accordance with the On-site Wastewater Management Guidance Manual.

6.32.340 Design Criteria

(a). Alternative on-site wastewater treatment systems shall not be used in lieu of a standard gravity flow or standard pressure dosed system when the proposed site can meet the requirements for the installation of such system. Experimental systems shall be considered a last resort and will be approved by the Department on a case by case basis. The Department reserves the right to refer all applications for experimental systems to the State Water Resources Control Board for approval and or regulation.

(b). All on-site wastewater treatment systems shall be designed based on the following:
(1). Available effective absorptive area in both primary and reserve disposal fields,
(2). Separation between disposal field bottom and groundwater or a restrictive soil layer,
(3). Ground slope in both the primary and reserve disposal field areas,
(4). Influent wastewater strength and quantity,
(5). Setback requirements, and
(6). The required level of wastewater treatment so as to not adversely affect water quality or endanger public health.

(c). The following shall dictate the use of standard on-site wastewater treatment systems:
(1). Effective absorptive area shall have percolation rates between five and 60 minutes per inch.
(A). Soils percolating faster than five minutes per inch will require a pressure dosing or subsurface drip disposal field and will not be permitted by the Department unless there is demonstration of adequate soil filtration capacity to prevent groundwater degradation.
(B). Soils percolating between 61 to 120 minutes per inch shall be approved for a standard on-site wastewater treatment system provided pressure dosing of the septic tank effluent is incorporated into the design of the disposal field. Exceptions may be granted for seepage pit type disposal fields or properties having sufficient space for both

primary and reserve disposal field areas provided the on-site wastewater treatment system is individually designed by a registered professional and the design is approved by the Department.

(C). Soils percolating slower than 120 minutes per inch shall only be approved for alternative on-site wastewater treatment systems provided the appropriate wastewater treatment technology is utilized and the system can be designed and installed in compliance with this Chapter and the On-site Wastewater Management Guidance Manual.
(D). Should the Department approve the use of soil textural classification in lieu of percolation testing the following shall apply to standard on-site wastewater treatment systems:
(i). Only soil types A-D from Table 2 of this Chapter shall be considered effective absorptive soil for shallow trench or bed type disposal fields.
(ii). Only soil types A-B from Table 2 of this Chapter shall be considered effective absorptive soil for deep trench or seepage pit type disposal fields. The soils may or not contain gravel.
(iii). All effective absorptive soil shall be non-cemented.
(2). At least five feet of soil shall be present between disposal field bottom and groundwater should a bed or trench be proposed as the disposal field type. Ten feet of separation shall be required for seepage pit type disposal fields.
(A). Three feet of separation shall be permitted if pressure dosing of the septic tank effluent is incorporated into the design of the standard on-site wastewater treatment system provided the disposal field consists of a shallow trench or bed.
(B). Less than three feet of separation shall require the use of an alternative on-site wastewater treatment system meeting the requirements of this Chapter and the On-site Wastewater Management Guidance Manual.
(C). Designs for alternative on-site wastewater treatment systems proposing less than two feet of separation may require approval by the California Regional Water Quality Control Board.
(3). There shall be a minimum of five feet of continuous effective absorptive soil below the bottom of a shallow trench or bed type disposal field.
(A). Three feet of separation shall be permitted if pressure dosing of the septic tank effluent is incorporated into the design of the standard on-site wastewater treatment system provided the disposal field is of a shallow trench or bed design.
(B). Less than three feet of separation shall require the use of an alternative on-site wastewater treatment system meeting the requirements of this Chapter and the On-site Wastewater Management Guidance Manual.
(4). Standard on-site wastewater treatment systems shall only be designed on sites with a ground slope less than 30 percent.
(5). The minimum required setbacks as indicated in Table 3 of this Chapter shall be maintained. An inability to maintain required setbacks shall require an alternative on-site wastewater treatment system or a design proposedd by a registered professional with experience in on-site wastewater treatment system design.

(d). Required absorptive field area shall be calculated by using available effective absorptive soil and soil application rates depicted in Table 2 of this Chapter if effective absorptive soil is determined by soil textural classification or Figure 1 of this Chapter if percolation testing in the disposal field area is performed.
(A). Soil application rates derived from percolation test results shall be calculated by using the slowest percolation test result obtained from all percolation test holes in the area in which the disposal field will be located.
(B). Soil application rates derived from soil textural classification, if permitted by the Department, shall be determined by using the most restrictive effective absorptive soil group encountered within five feet from the bottom of a shallow trench or disposal field bed. Soil application rates for deep trench or seepage pit type disposal fields shall be determined by the using the most restrictive effective absorptive soil encountered within the trench or pit profile below the point at which effluent leaves the distribution piping.
(C). Only sidewall or bottom area but not both shall be used when calculating the required disposal field area for a shallow trench or bed type disposal field. Sidewall area only shall be used with deep trench or seepage pit type disposal fields.

(e). Projected daily wastewater flow shall be determined as follows:
(1). Wastewater flow from single family residences must be calculated at 350 gallons per day for up to a two bedroom home, 400 gallons per day for a three bedroom home, and 100 gallons per day for each additional bedroom.

(2). Wastewater flow from other than single-family dwellings shall be estimated using Table 4 of this Chapter.
(3). In no case shall an on-site wastewater treatment system be designed for a flow of less than 100 gallons per day.
(4). If proposed, the projected daily flow may be calculated by actual potable water meter readings, or facility wastewater influent or effluent meter readings if such records are available from the service provider or from water

meters certified to be within two percent by the water purveyor or, in the case of wastewater metering, the meter read values are certified as “correct” by a registered professional and agreed to by the Department. Average daily flows shall be calculated from peak flow days as follows:
(A). If the water meter records are recorded on a daily basis, the highest ten-day flows for a twelve month period can be averaged and used for the design flow.
(B). If the water meter records are recorded on a weekly basis, the design flow shall be calculated by dividing the number of days the facility was in use into the highest weekly flow over a twelve month period and then multiplying by 1.2.
(C). If the water meter records are recorded on a monthly basis, the design flow shall be calculated by dividing the number of days the facility was in use into the highest monthly flow over a twelve month period and then multiplying by 1.5.
(D). If the water meter records are recorded on a quarterly basis, the design flow shall be calculated by dividing the number of days the facility was in use into the highest quarterly flow over a twelve month period and then multiplying by 2.0.

(f). A reserve disposal field area with suitable site conditions must be set aside for future installation. The reserve area must be:
(1). Equal to 100 percent of the capacity required for the primary disposal field.
(2). Separate from the primary disposal field area,
(3). Able to meet all current design requirements for the type of disposal field proposed, including soil depth, soil type, slope restrictions, and setbacks, etc.
(4). Fully protected to prevent damage to soil and any adverse impact on the immediate surroundings that may affect the installation of the reserve disposal field or its function.

(g). Installation of a standard on-site wastewater treatment systems on parcels under one acre in size will require that a reserve disposal field be installed at the same time as the primary. The disposal fields are to be separated by an approved valve to switch from field one to field two at the recommended interval.

(h). Septic tank capacity shall be a minimum of 1000 gallons and a maximum of 10,000 gallons. Tanks in excess of 3000 gallons shall have design specifications pursuant to the most current version of the Uniform Plumbing Code, submitted to the Department for approval.
(1). For residential dwellings, the minimum liquid capacity of any septic tank shall be 1200 gallons for up to a three bedroom residence, 1500 gallons for up to a five bedroom residence, and an additional 200 gallons for each bedroom thereafter.
(2). Septic tank capacity for commercial applications shall be determined by doubling the calculated average daily flow found in Table 4 of this Chapter.

(i). All septic tanks, pump tanks, and distribution boxes shall be watertight and installed level on a stable surface to prevent settling. All tanks may be subject to a water tightness test as described in the Guidance Manual.
(j). All septic tanks and pump tanks shall have water tight pumping risers extending to ground surface or above on all compartment access ports of the tank. Risers shall be a minimum of 24 inches in diameter and have gas-tight tamper-proof lids. Any tanks and or risers in potential traffic areas shall be traffic rated and capable of supporting all anticipated loads. The original tank compartment access port lids shall remain in place or Department approved safety grates shall be positioned over access port openings within each riser.
(k). Disposal fields for on-site wastewater treatment systems shall be designed to equally distribute septic tank effluent by way of a Department approved distribution box.

(l). Pump tanks shall have a minimum liquid capacity equal to or greater than one days projected sewage flow.

(m). Setback requirements for distribution boxes shall maintain the following distances:
(1). A minimum of three feet to a septic tank, pump tank, or disposal field.
(2). A minimum of five feet from a building or property line.

(n). Disposal fields shall be constructed as follows:
(1). Seepage pits shall:

(A). Have a minimum diameter of 36 inches and a maximum diameter of 48 inches,
(B). Maintain a cumulative minimum five foot column of effective soil per pit,
(C). Not terminate greater than 40 feet below ground surface,
(D). Be installed so that there is a minimum of two pits for any one system, and a minimum excavation of one seepage pit per bedroom,
(E). Be spaced so that there is a minimum of sixteen feet between seepage pit sidewalls,
(F). Have a Department approved inspection box at the top of each pit surrounded by a concrete pit collar having a minimum thickness of four inches,
(G). Meet the setback requirements specified in Table 3 of this Chapter.
(2). Disposal field trenches shall:
(A). Have a maximum width of 36 inches,
(B). Not exceed 100 feet in length,
(C). Be spaced so that there is a minimum of ten feet between the center of each trench.
(D). Meet the setback requirements specified in Table 3 of this Chapter.

(o). Repairs to existing on-site wastewater treatment systems shall require 100 percent replacement of the required disposal field area.

(p). Designs for new on-site wastewater treatment systems serving commercial establishments capable of generating wastewater containing fats, oils, grease, grit, or sand shall be required to incorporate an outdoor grease trap or sand-oil separator into the system design. Grease trap or sand-oil separator size and installation requirements shall comply to the most current version of the Uniform Plumbing Code adopted by the Sacramento County Board of Supervisors.

Table 2
Soil Application Rate based on USDA Textural Classification

USDA Textural Classification	Soil Group	Application Rate (gdp/ft^2)
Course to medium sand	A	1.2 or less
Fine sand, loamy sand	B	1.1 to 0.8 or less
Sandy loam, loam	C	0.8 to 0.6 or less
Silt loam	D	0.6 to 0.4 or less
Clay loam, sandy or silty clay loam, sandy clay	E	0.4 to 0.1 or less

Figure 1
Soil Application Rate based on Percolation Rate

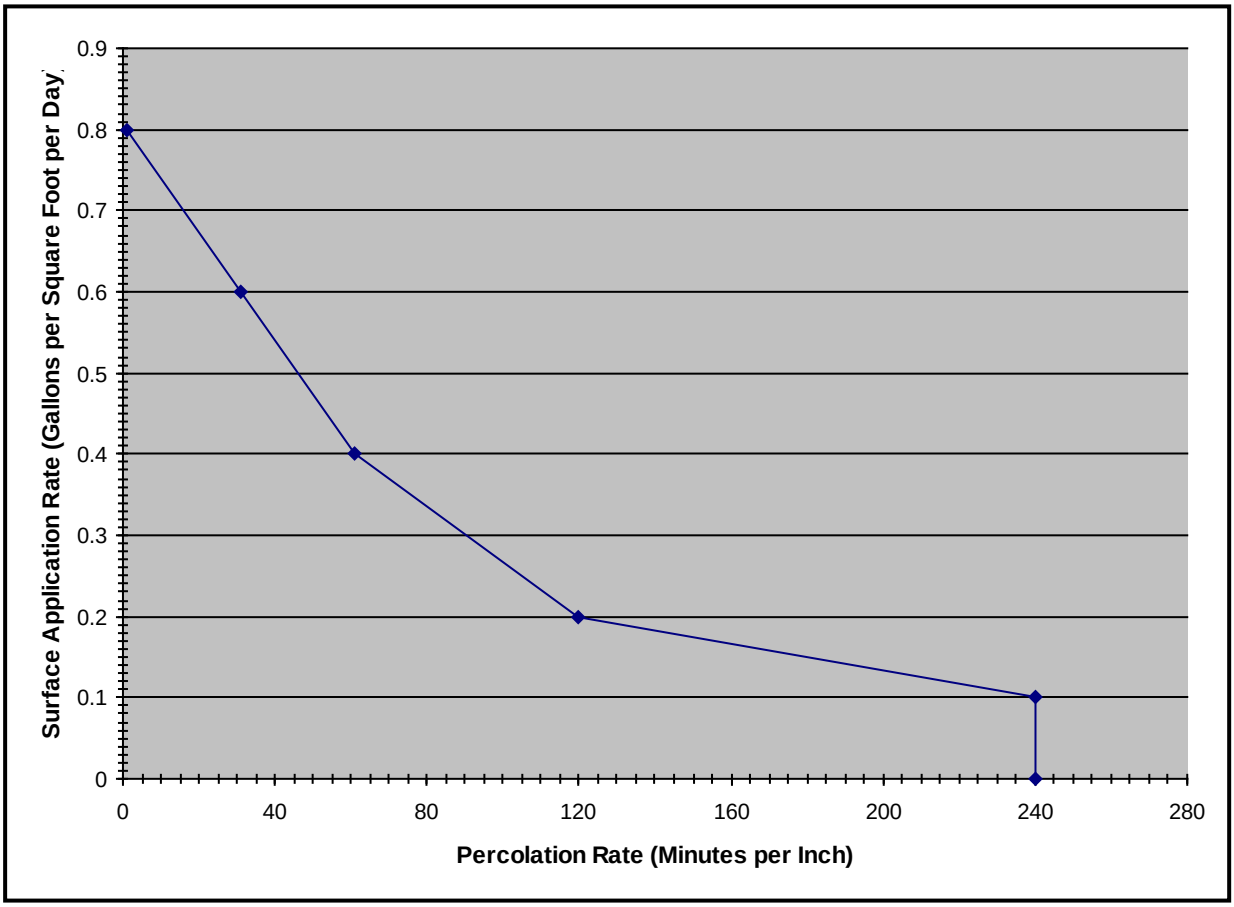

Table 3
Minimum Setback Requirements

Distance Required From:	From Disposal Field	From Septic Tank, ATU, or Lined Sand Filter
Wells Domestic and Public	150' – (deep trench, seepage pits) 100' – (leach lines)	100'
Surface Waters[1] Reservoirs or lakes Year-Round Springs, Streams, Creeks, Ponds, Rivers Intermittent streams, drainage swales	 200' 100' 50'	50'
Curtain drains – Vertical/Curtain drains Up-gradient of system Down-gradient of system	 20' 50'	 20' 25'
Cuts manmade in excess of 2.5 feet (top of down slope cut) or escarpments[2]	4 x the height of the bank, to a maximum of 50'	20'
Property lines, foundation lines for any structure including garages, out-buildings, in-ground swimming pools, water lines [3,4]	5'	5'
Easements	Clear	Clear

Table Footnotes: Setbacks not specified in this table shall conform to the most recent Board of Supervisors-adopted Uniform Plumbing Code.
1. Setbacks from streams and creeks must be measured from bank drop-off or mean yearly high water mark. Reservoirs and lakes are differentiated from ponds by being greater than 1 acre-feet in size. Landscape ponds less than 5,000 gallons are exempt from these setbacks.
2. The height (in feet) of the cut or escarpment as measured from the toe of the cut or vertically to the projection of the natural ground slope.
3. 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.
4. Unless otherwise approved by the Department, crossing of water lines and effluent sewer lines is prohibited.

Table 4
Design Flow Rates

Type of Business or Facility	Minimum Flow (Gallons per Day)
Barbershop/salon	100 (per chair)
Camps (4 persons per campsite, where applicable) -with central comfort stations -with flush toilets, no showers -construction camps (semi-permanent) -day camps (no meals served) -resort camps (night and day) with limited plumbing	 35 (per person) 25 (per person) 50 (per person) 15 (per person) 50 (per person)
Churches -with kitchen -without kitchen	 15 (per seat) 5 (per seat)
Country clubs -per resident member -add per nonresident member present -add per employee	 100 5 15 (per 8 hour shift)
Dentist office -per wet chair -add per non-wet chair	 200 15
Factories -with shower facilities, no food service or industrial wastes -without shower facilities, no food, service or industrial wastes	 35 (per person, per shift) 15 (per person, per shift)
Hospitals	250 (per bed space)
Hotels or motels -with private baths -without private baths	 100 (per room) 80 (per room)
Institutions other than hospitals	125 (per bed)
Laundries, self-service washing machines	500 (per machine)
Limited agricultural building	100 (per building)
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	 50 (per seat) 25 (per seat) 50 (per seat)
Residential Structures -Second dwelling, condominium, multi-family (duplex, triplex, etc.) -Guesthouse	 Same as for full single family residence Same as for additional bedroom
Retail stores -for customer -add for each employee	Use comparable flows from similar businesses and population 15 (per 8-hr shift)
Shopping center	2 (per parking space)

Table 4
Design Flow Rates (continued)

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	500 for 1st pump set, 300 for each addn'l
Swimming pools and bathhouses	10 (per person)
Theaters -movie -drive-in	 5 (per seat) 20 (per car space)
Recreational vehicle parks -without individual water and sewer hookups -with individual water sewer hookups	 50 (per space) 100 (per space)

6.32.350 Portable Toilets—General Provisions

(a). It shall be unlawful for any person, firm, or corporation to clean, install, or replace a portable toilet or dispose of the cleanings thereof without first obtaining a registration pursuant to Article 7 of this Chapter.

(b). Portable toilets shall only serve limited use applications such as special events, primitive type picnic grounds, campsites, recreational facilities ,agricultural labor use, and construction sites where a connection to public sewer or the installation of an on-site wastewater treatment system is not practical as determined by the Department.

(c). Unless the Department determines otherwise, the use of portable toilets for greater than three consecutive days in a 90 day period on any given parcel, whether for private or public use, shall require a temporary operating permit pursuant to subsection (e) of this provision. The placement and use of portable toilets by State, County, and City agencies are exempt from this provision provided they are in compliance with subsection (d) below. The Department may exempt other limited use applications on a case by case basis.

(d). Portable toilets shall be operated and maintained in a safe and sanitary manner that is at all times compliant with this Chapter and policies established by the Department and the Health Officer for the County of Sacramento.

(e). An applicant for a temporary operating permit shall submit to the Department an application on such forms as the Department prescribes. At a minimum, the operating permit application shall provide the following information:
(1). The name, address, and phone number of the property owner for the parcel where such portable toilet is to be used.
(2). The name, address, and phone number of the company loaning, renting, or leasing the portable toilet.
(3). The name, address, and phone number of the registered portable toilet cleaner/wastewater hauler that will be contracted with for the cleaning, sanitizing, and removal of wastewater from said portable toilets during the duration of the event.
(4). Type of event.
(5). Duration of event.
(6). Whether alcohol will be consumed.
(7). A detailed drawing showing the position of the portable toilet relative to its placement on the property
(f). The Department may deny an application for a temporary operating permit upon determination that the placement of such toilet could potentially result in contamination, pollution, or a nuisance.

(g). In the event that a temporary operating permit is required by the Department for the use of a portable toilet, the

applicant for such permit shall be considered the responsible party and shall assume the responsibility of ensuring compliance with all provisions of this Chapter and any conditions placed on the permit by the Department.

(h). Temporary operating permits issued pursuant to this section shall be subject to suspension or revocation by the Department; in which case, the portable toilet shall be removed from the premises until such temporary operating permit is reinstated or a new temporary operating permit issued.

(i). Every person, firm or corporation engaged in doing construction or remodeling work of any kind within the County that employs individuals to do work for them, and where no sewer connection is available, shall provide a temporary portable toilet for each 20 individuals or fractional part thereof working at each job site.

(j). Portable toilets shall be constructed in a manner consistent with the On-site Wastewater Management Guidance Manual.

(k). Special events shall be supplied with an adequate number of portable toilets and hand washing lavatories to accommodate the number of individuals attending such event. It is recommended that at a minimum, the quantity be consistent with that specified in the On-site Wastewater Management Guidance Manual for the County of Sacramento.

6.32.360 Portable Toilets—Maintenance and Operation

(a). Portable toilets must be maintained in a clean and sanitary manner to prevent the spread of disease, the breeding of disease carrying vectors, and the production of noxious or offensive odors.

(b). Water-carried sewage shall not be placed in portable toilets.

(c). Contents of portable toilets shall not be discharged into storm sewers, placed, spilt, or deposited onto the surface of the ground, or allowed to flow, seep, or drain into any waters of the State.

(d). Portable toilets must be pumped weekly or more often if necessary.

(e) Portable toilets must be cleaned and disinfected thoroughly, including the inner walls, receptacle, seats, and lids with every pumping.

(f) Chemical additives used in portable toilets must be chosen from the list of acceptable additives provided by the California Regional Water Quality Control Board.

6.32.370 Wastewater Holding Tanks—General

(a). Unless otherwise approved by the Department, the use of wastewater holding tanks for the purpose of holding and or containing sewage for disposal at another location shall only be allowed under the following conditions:
(1). The Department has determined that a connection to public sewer or that the installation of an on-site wastewater treatment system is not legally or physically possible, or reasonable when considering the intended use of the tank, and the tank will serve only non-residential and non-commercial limited use applications, such as a agricultural buildings, recreational facilities, sewage pump-out stations, or construction trailers, and the cumulative daily sewage flow does not exceed 300 gallons per day.
(2). The holding tank is used as a temporary means to hold or contain sewage due to an on-site wastewater treatment system failure.

(3). The holding tank is used in cases where the Department requires seasonal high groundwater monitoring prior to the approval of a construction permit.
(4). The holding tank is used for the temporary storage of septage at a facility regulated under Article 7 or 8 of this Chapter.

(b). This Article shall apply to all wastewater holding tanks whether new or existing.

(c). Holding tanks shall not be considered as an approved means of sewage disposal for the purpose of creating new parcels.

6.32.380 Wastewater Holding Tanks—Operating Permit

(a). No person, firm, or corporation shall commence the use of a wastewater holding tank for the purpose of holding and or containing sewage for disposal at another location without first obtaining an annual operating permit from the Department.

(b). An applicant wishing to obtain an operating permit shall first apply to the Department on such forms as the Department prescribes.

(c). A fee, pursuant to Sacramento County Code Title 6, Section 6.99 et al., may be charged at the time of application submittal to defray the costs of administration and or inspection.

(d). The application at a minimum shall include but not be limited to:
(1). The name, address, and phone number of the applicant.
(2). The name address, and phone number of the property owner of the parcel on which such tank is to be installed. The Department may require a letter of authorization if the legal parcel owner is different from the permit applicant.
(3). A plot plan showing the location where such tank is to be installed relative to fixed structures, water wells, drainage ditches, rivers, streams, water lines, and driveways.
(4). The name, address, and phone number of the company loaning, renting, or leasing the wastewater holding tank.
(3). The name, address, and phone number of the registered septic tank cleaner/wastewater hauler that will be contracted with for the cleaning, and removal of wastewater from said tank.

(e). The Department may suspend or revoke an operating permit for failure of the permitee to make timely payment of assessed fees or comply with any terms and or conditions placed on the permit by the Department at the time of permit issuance or renewal. Upon suspension or revocation, further operation of the system shall cease until the suspension is lifted or a new annual operating permit is issued.

6.32.390 Wastewater Holding Tank—Construction and Installation Requirements

(a). Unless otherwise approved by the Department, all wastewater holding tanks shall meet the construction and installation requirements as described in the On-site Wastewater Management Guidance Manual and may be subject to inspection by Department Staff.

(b). Minimum holding tank capacity shall be determined by using the highest anticipated daily flow plus an additional 100% storage capacity.

(c). If required by the Department, wastewater holding tanks must be equipped with both an audible and visual alarm configured to signal when the tank is seventy-five percent full. The alarm must transmit the signal to an appropriate

off-site location for remote notification or be placed in a location acceptable to the Department. Only the audible alarm shall be user-cancelable.

(d). Wastewater holding tanks shall not have an overflow vent at an elevation lower than the overflow level of the lowest fixture served.

(e). Wastewater holding tanks shall be designed and installed to facilitate visual inspection and removal of contents when pumping.

(f). The placement of wastewater holding tanks may be subject to the setback requirements for septic tanks as specified in Table 3 of this Chapter.

6.32.400 Wastewater Holding Tank—Owner Responsibilities

(a). If required by the Department, the owner of the property on which such wastewater holding tank is installed may be required to record a deed restriction agreeing to be served by a public sewer system when said system becomes legally and physically available as determined by the servicing sewer district.

(b). The owner of the property on which such holding tank is installed or their authorized agent will:
(1). Provide the Department with a copy of a contract from a Department certified wastewater hauler/septic tank cleaner showing that the tank will be pumped at regular intervals or as needed to prevent use of greater than seventy-five percent of the tank's capacity and
(2). Maintain a clear and legible record of pumping dates and amounts of sewage pumped from each holding tank. The record shall be kept onsite and made available to Department staff upon request.

6.32.410 Wastewater Holding Tank—Inspection

Each holding tank installed and operated pursuant to this Chapter may be subject to inspection by Department staff during normal business hours.

6.32.420 Vault Privies—General

(a). Unless otherwise approved by the Department, vault privies shall only be permitted under the following conditions:
(1). The servicing sewer district has determined that public sewer is not legally or physically available, and
(2). The Department has determined that the installation of an on-site wastewater treatment system is not practicable or is unable to meet the requirements of this Chapter, and
(3). The vault privy will only serve non-residential and non-commercial limited use applications, such as primitive-type picnic grounds, campsites, and recreation areas.

(b). No person, firm, or corporation shall install a vault privy without first having obtained a construction permit pursuant to Article 3 of this Chapter.

(c). The Department may require a site evaluation or elements thereof pursuant to Article 3 of this Chapter prior to the approval of a construction permit.

(d). As a condition of construction permit approval, an operating permit may be required.

(e). The contents of vault privies shall not be discharged into storm sewers, placed, spilt, or deposited onto the surface of the ground, or allowed to flow, seep, or drain into any waters of the state

6.32.430 Vault Privies—Construction and Installation Requirements

(a). The vault must be constructed in substantial compliance with this Chapter and the On-site Wastewater Management Guidance Manual. A water tightness test may be required at the Department's discretion.

(b). Vault privies shall not be sited in a floodways and must meet the minimum required setbacks for septic tanks as specified in Table 3 of this Chapter.

(c). Vault privies shall be maintained to prevent health hazards and pollution to both surface and ground water.

(d). The structures must be free of hazardous surface features, such as exposed nail points, splinters, sharp edges, and rough or broken boards, and will provide privacy and protection from the elements.

(e). The structures ventilation system must be equally divided between the bottom and top halves of the room and have a total square of three feet. At a minimum, all vents must be screened with sixteen (16) mesh screen of durable material.

(f). The structure must be fly and rodent resistant, and shall have self- closing doors with an inside latch.

(g). Vaults must be vented to the outside atmosphere by a flue or vent stack having a minimum inside diameter of four (4) inches.

(h). Interior floors, walls, ceilings, partitions, and doors must be finished with readily cleanable impervious material resistant to wastes, cleansers and chemicals. Floors and risers must be constructed of impervious material and in a manner that will prevent entry of vermin.

(i). The seat opening must be covered with attached, open-front toilet seats with lids, both of which can be raised to allow use as a urinal.

(j). A toilet tissue holder must be provided for each seat.

(k). Sewage holding chambers must be watertight and constructed of reinforced concrete, plastic, fiberglass, metal, or other material of acceptable durability and corrosion resistant.

(l). A minimum clear space of twenty-four (24) inches shall be required between multiple-unit installations and a clear space of twelve (12) inches shall be required from the seat opening to the side building wall in single and multiple units.

6.32.440 Vault Privies—Operating Requirements

(a). An operating permit pursuant to Article 3 of this Chapter may be required.

(b). The privy vault shall not be allowed to become filled with sewage to a point within two (2) feet of ground surface.

(c). The contents in the vault must be pumped out by a certified wastewater hauler/septic tank cleaner as necessary to fulfill the requirements in subsection (b) above.

(d). The privy must be maintained in a sanitary condition and in good repair.

(e). No water-carried sewage may to be placed in vault privies.

6.32.450 Wastewater Hauling Vehicles—Registration—Fee—Disposal of Cleanings.

(a). No person or firm shall engage in the business of cleaning septic tanks, wastewater holding tanks, portable toilets, airline lavatory carts, cesspools, grease traps, or any other tank or vault designed to effectively hold and or treat wastewater or dispose of the cleanings thereof within the jurisdiction of the Department without first obtaining and holding an unrevoked registration therefore as required by Section 117400-117450 of the California Health and Safety Code. The fee for such registration shall be established and revised from time to time in Sacramento County Code Title 6, Section 6.99 et al.

(b). No person or firm shall dispose of such cleanings within the County except at such points and according to such procedures as have been designated by the Department.

(c). All applications for registration under this article shall be filed with the Department using such forms as the Department prescribes and shall not be approved until all required information is provided.

(d). Registration shall be issued only after a satisfactory examination by Department staff covering the equipment to be used, the applicant's knowledge of sanitary principles and of the laws and ordinances affecting human health or nuisances, and the reliability of the applicant in observing sanitary laws, ordinances and directions, and in selecting employees who may clean out septic tanks, wastewater holding tanks, portable toilets, cesspools and airline lavatory carts without endangering human health or comfort; and only after examination of the place or places and manner of disposal of the cleanings proposed by the applicant.

(e). Applicants may be registered under any terms, conditions, orders, and directions as the Department may deem necessary for the protection of human health and comfort. Such terms, conditions, orders, and directions may include but are not limited to vehicle identification requirements, vehicle storage requirements, vehicle road worthiness requirements, and requirements pertaining to the facilities where such vehicles are stored.

(f). Each driver of a registered vehicle shall be required to maintain pumping and cleaning records of the septic tanks, cesspools, wastewater holding tanks, and portable toilets for which they pump for a period of five years and may be required to submit said pumping reports to the Department upon request. The reports must list the previous month's pumping activities in the county. Reports must be in the format and on the forms prescribed by the Department.

(g). Vehicles used for the cleaning of septic tanks, wastewater holding tanks, portable toilets, airline lavatory carts, cesspools, or any other tank or vault holding and or treating septage or sewer waste or transporting the contents thereof shall be prohibited from cleaning and or transporting the contents of grease traps and or grease interceptors.

(h). Unless otherwise approved by the Department, a vehicle designated to clean and transport the contents from grease traps shall not use the same vehicle to transport other waste, including, but not limited to, yellow grease, cooking grease, recyclable cooking oil, septage, sewer waste, or fluids collected at car washes.

6.32.460 Wastewater Hauling Vehicles—Maintenance Yard and Storage Facilities

(a). Any person, firm, or corporation engaged in the business of storing and or managing portable toilets, and or wastewater holding tanks, and or wastewater hauling vehicles within the County of Sacramento shall first obtain an annual operating permit issued by the Department.

(b). An application for an operating permit shall be submitted to the Department on such forms as the Department prescribes.

(c). A fee pursuant to Sacramento County Code Title 6, Section 6.99 et al may be required at the time of application submittal to defray the costs of administration and inspection.

(d). Wastewater hauling vehicles, wastewater holding tanks, and portable toilets shall be stored in locations approved by the local zoning authority and the Department. The Department may require written authorization from the property owner or authorized agent of the parcel where such vehicles, tanks, or toilets are maintained and or stored.

(e). The use of stationary holding tanks and containment vessels for the temporary and interim storage of septage, sewer waste, and or other wastewater detrimental to public health or the environment prior to removal and transport to a municipal wastewater treatment plant or other approved disposal location shall require prior approval from the Department. An operating permit pursuant to Section 6.32.380 of this Chapter may be required.

(f). The facilities and or buildings, and or yards where such vehicles, tanks, and or toilets are stored and or maintained shall be inspected at a frequency of one time per year, during normal business hours, by Department staff to ensure the following:
(1). That the facilities, buildings, and or yards are clean and sanitary to prevent the breeding of flies or other disease carrying vectors.
(2). That the storage and or managing of such toilets, tanks, or vehicles are not contaminating, polluting, or creating a public nuisance as determined by the Department.
(3). That the facilities, buildings, and or yards are in compliance with this Chapter and any conditions placed on the operating permit issued by the Department.

6.32.470 On-site Wastewater Treatment and or Processing Facilities—General

(a). Any person, firm, or corporation proposing to construct or engage in the business of processing and or treating wastewater where such business is not regulated by any State or Federal Department having jurisdiction over such activity shall first obtain the proper permits issued by the Department. Such permits may include but are not limited to wastewater holding tank permits and annual operating permits.

(b). An application for a wastewater holding tank permit or operating permit shall be submitted to the Department by the business owner or their authorized agent on such forms as the Department prescribes. At the Department's request, the applicant shall submit a clearance letter from the appropriate planning agency, Regional Water Quality Control Board, or other appropriate public or private agencies approving the site for the intended use. At the Department's discretion, an environmental review pursuant to the California Environmental Quality Act may be required.

(c). A fee pursuant to Sacramento County Title 6, Code Section 6.99 et al may be required at the time of application submittal to defray the costs of administration and inspection.

(d). The facilities and or buildings, and or yards where such processing and or treatment activities occur shall be

inspected at a minimum of one time per year, during normal business hours, by Department staff to ensure the following:

(1). That the facilities, buildings, and or yards are clean and sanitary to prevent the breeding of flies or other disease carrying vectors.
(2). That the transportation, storage, processing, and or treatment activities that occur on the premises, are not contaminating, polluting, or creating a public nuisance as determined by the Department.
(3). That the facilities, buildings, and or yards are in compliance with this Chapter and any conditions placed on the operating permit issued by the Department.

(e). As a condition imposed on the operating permit, the Department may require such additional information including but not limited to:
(1). Pumping records on such forms as the Department prescribes from all wastewater hauling vehicles disposing of wastewater at the site'
(2). Receipts demonstrating that the processed and or treated sewage and or wastewater was disposed of at approved locations such as public wastewater treatment facilities or landfills,
(3). Inspection reports for the operation and maintenance of any tank, piece of equipment, or vehicle hauling wastewater or solids.

(f). Nothing contained in this Article shall be construed to prevent the Department from requiring compliance with more protective requirements than those contained herein, where such requirements are essential to maintain a safe and sanitary condition.

(g). The issuance of an operating permit by this Department shall not impose liability on the Department for failure of the responsibility party to secure all applicable permits and entitlements prior to the construction and or operation of such facility nor does the operating permit relieve the applicant from the responsibility of complying with any other local, State, or Federal agency's requirements related to such treatment and or processing activities.

6.32.480 Graywater Systems

Graywater systems shall be permitted, installed, operated, and maintained in accordance with applicable provisions of all County and State regulations pertaining to such systems.

6.32.490 Notice of Violation

The Director and/or his or her designee, may issue a Notice of Violation to any person found to be in violation of a provision of this Chapter, including, but not limited to, any regulation, information request, order, variance, condition, or other requirement that the Director, and/or his or her designee, is authorized to enforce or implement pursuant to this Chapter. Issuance of a Notice of Violation may also result in issuance of an Administrative Enforcement Order pursuant to Section 6.32.510 of this Chapter.

6.32.500 Notice of Violation—Content

(a). In addition to any other content, a Notice of Violation shall contain the following elements:
(1). A statement of the Director, and/or his or her designee's, findings that indicates a violation has occurred.
(2). A citation of the provision of this Chapter including any regulation, permit, information request, order, variance, condition, or other requirement that has been violated.
(3). A date by which any person must be in compliance with this Chapter including any regulation, permit, information request, order, variance, condition, or other requirement, or a date by which an action plan must be submitted by the person to propose a means and time frame by which to correct violations. The Director, and/or his or her designee, may extend the compliance date when good cause exists for such an extension.

(4). Notification that continued non-compliance may result in additional enforcement action being taken against the business, facility, or any responsible persons.
(5). Notification that a violation of this Chapter may result in an administrative civil penalty in accordance with section 6.32.510(b), or in criminal penalties.

(6). Notification that the correction of any alleged violation(s) within the specified deadline date(s) will not necessarily prevent the Director, and/or his or her designee, from issuing an Administrative Enforcement Order and imposing administrative civil penalties relating to the alleged violation(s).

(b). In addition to any other content, a Notice of Violation may establish required corrective actions, including the following:
(1). Terms, conditions, and requirements reasonably related to the provisions of this Chapter, including the following:
(A). Cessation of prohibited actions.
(B). Correction of prohibited conditions.
(C). A requirement for submittal of a written action plan for achieving and maintaining compliance with this Chapter.
(D). Inspection and/or reporting requirements to demonstrate ongoing compliance.
(2). A requirement that the person receiving same shall submit written certification to the Director, and/or his or her designee, that the necessary corrective actions have been completed. As appropriate for the type of correction action taken, the Notice of Violation may require documentation that substantiates the certification, including but not limited to receipts, inspection reports, contracts, or photographs.
(3). Any other terms or conditions reasonably calculated to prevent additional or on-going violations of this Chapter.

(c). An Administrative Enforcement Order pursuant to Section 6.32.510 of this Chapter may be issued separately, but only after issuance of a Notice of Violation, or in combination with a Notice and Order, for the same violations or set of related violations.

6.32.503 Cease and Desist Orders

(a). The Director may issue a cease and desist order requiring the owner or operator of any residence, multi-family residential facility, business or any other occupied structure, or any other person responsible for any violation of this chapter, to take any of the following actions:
(1).Immediately discontinue any prohibited discharge of liquid waste material.
(2) Immediately discontinue any other violation of this chapter.
(3).Satisfactorily remediate the area affected by the violation.

(b).The Director may issue an administrative enforcement order, pursuant to Section 6.32.510 of this chapter, if it has been determined that an owner or operator has not complied with any or all provision(s) of any cease and desist order.

6.32.505 Injunctions

When any person has engaged in, is engaged in, or threatens to engage in, any acts or practices which violate this chapter, or any resolution, rule, or regulation adopted pursuant to this chapter, the Office of the County Counsel for Sacramento County may apply to any court of competent jurisdiction for an order enjoining those acts or practices, or for an order directing compliance.

6.32.510 Administrative Enforcement Order

If the Director, and/or his or her designee, determines that a person has committed, or is committing, a violation of any provision, permit, information request, order, variance, condition, or other requirement of this Chapter that the Director,

and/or his or her designee, is authorized to enforce or implement, the Director, and/or his or her designee, may issue an Administrative Enforcement Order, after issuing a Notice Violation or in combination with a Notice of Violation, requiring that the violation be corrected and imposing an administrative penalty.

6.32.520 Administrative Enforcement Order—Content

(a). In addition to any other content, an Administrative Enforcement Order shall contain the following elements:
(1). A statement of the Director, and/or his or her designee's, findings that indicates a violation has occurred.
(2). A citation of the provision of this Chapter including any regulation, information request, order, variance, condition, or other requirement that has been violated.
(3). A date by which any person must be in compliance with this Chapter, or a date by which an action plan must be submitted by the person to propose a means and time frame by which to correct violations. The Director, and/or his or designee, may extend the compliance date when good cause exists for such an extension.
(4). Notification that continued non-compliance may result in additional enforcement action being taken against the business, facility, or any responsible persons.
(5). Notification as to whether an administrative civil penalty is imposed and the terms and conditions of payment if any.
(6). In establishing the penalty amount, the Director, and/or his or her designee, shall take into consideration:
(A). The nature, circumstances, extent, and gravity of the violation;
(B). The violator's past and present efforts towards compliant behavior;
(C).The violator's ability to pay the penalty;
(D). The deterrent effect that the imposition of the penalty would have on both the violator and the community.
(7). Notification that the correction of any alleged violation(s) within the specified deadline date(s) will not necessarily prevent the Director, and/or his or her designee, from issuing an Administrative Enforcement Order and imposing administrative civil penalties relating to the alleged violation(s).
(8). Notification that the recipient has a right to a hearing on the matter as set forth in section 6.32.540 of this Chapter to appeal any findings or required corrective actions established by the Director, and/or his or her designee.
(9). Notification of procedures for requesting a hearing established according to section 6.32.540 of this chapter.

(b). In addition to any other content, an Administrative Enforcement Order may establish required corrective actions, including the following:
(1). Terms, conditions, and requirements reasonably related to the provisions of this Chapter, including the following:
(A). Cessation of prohibited actions.
(B). Correction of prohibited conditions.
(C). A requirement for submittal of a written action plan for achieving and maintaining compliance with this Chapter.
(D). Inspection and/or reporting requirements to demonstrate ongoing compliance.
(2). A requirement that the person receiving same shall submit written certification to the Director, and/or his or her designee, that the necessary corrective actions have been completed. As appropriate for the type of correction action taken, the Administrative Enforcement Order may require documentation that substantiates the certification, including but not limited to receipts, permits, inspection reports, contracts, or photographs.
(3). Any other terms or conditions reasonably calculated to prevent additional or on-going violations of this Chapter.

(c). A Notice of Violation or an Administrative Enforcement Order may be issued separately or in combination with another notice or order for the same violations or set of related violations.

6.32.530 Administrative Enforcement Order—Penalty

The recipient of a Notice of Violation or Administrative Enforcement Order shall be liable for a penalty of not more than one thousand dollars ($1,000) for each day on which each violation occurs and/or continues.

6.32.540 Delivery of Notice or Order

Any Notice of Violation, permit revocation, Administrative Enforcement Order or other enforcement action pursuant to the requirements of this Chapter shall be subject to the following requirements:

(a). Delivery shall be deemed complete upon either personal delivery to the recipient or by certified mail.

(b). Where the recipient of the notice or order is the owner of the premises, the address for notice or order shall be the address from the most recently issued equalized assessment roll for the premises.

(c). Where the owner or occupant of any premises cannot be located after reasonable efforts of the Director, and/or his or her designee, the notice or order shall be deemed delivered after posting on the premises for a period of ten (10) business days.

6.32.550 Administrative Appeals

(a). Any person, owner or operator served with an Administrative Enforcement Order issued pursuant to this Chapter who has been unable to resolve any violation with the Director, and/or his or her designee, may within 15 days after service of the order, request a hearing pursuant to this section by filing with the Director, and/or his or her designee, a Notice of Defense, which form shall be provided with the Administrative Enforcement Order.
(1). A Notice of Defense shall be deemed filed within the 15-day period provided by this subdivision if it is postmarked no later than 15 days after service of the order.
(2). If no Notice of Defense is filed within the time limits provided by this subdivision, the Administrative Enforcement Order shall become final.

(b). A person, owner or operator requesting a hearing on an order issued by the Director, and/or his or her designee, under this chapter may select the Hearing Officer specified in either subparagraph (1) or (2) in this section by indicating so on the Notice of Defense filed with the Director, and/or his or her designee. If a Notice of Defense is filed but no Hearing Officer is selected, the Director, and/or his or her designee, may select the Hearing Officer pursuant to either subparagraph 1 or 2 of this section. Within 60 days of receipt of the notice of defense by the Director, and/or his or her designee, the hearing shall be scheduled using one of the following:
(1). An administrative law judge of the Office of Administrative Hearings of the Department of General Services, shall conduct the hearing in accordance with Chapter 4.5 (commencing with Section 11400) of Part 1 of Division 3 of Title 2 of the Government Chapter, and the Director, and/or his or her designee, shall have all the authority granted to the agency by those provisions.
(2). A Sacramento County Hearing Officer appointed pursuant to Government Chapter section 27720 et seq. Each Hearing Officer shall also meet the requirements of Government Chapter section 11425.30 and any applicable restriction.

(c). When a hearing is conducted by a Hearing Officer designated by the Director, and/or his or her designee, the Hearing Officer shall issue a decision within 30 days after the hearing is conducted. Each Hearing Officer designated

by the Director, and/or his or her designee, shall meet the requirements of Section 11425.30 of the Government Chapter and any other applicable restriction.

(d). Alternative dates for the hearing may be established by mutual consent of the person, owner or operator, and the Director, and/or his or her designee, or as ordered by the Hearing Officer.

(e). The hearing decision issued pursuant to subparagraph (c). of this section shall be effective and final upon issuance by the Director, and/or his or her designee. A copy of the decision shall be served by personal service or by certified mail upon the party served with the order, or their representative, if any.

(f). The hearing decision issued pursuant to subparagraph (c). of this section may be reviewed by a court pursuant to Section 11523 of the Government Chapter. In all proceedings pursuant to this section, the court shall uphold the

decision of the Director, and/or his or her designee, if the decision is based upon substantial evidence in the record as a whole. The filing of a petition for writ of mandate shall not stay any action required pursuant to this chapter or the accrual of any penalties assessed pursuant to this chapter. This subdivision does not prohibit the court from granting any appropriate relief within its jurisdiction.

(g). All administrative penalties and filing fees collected from actions brought by the Director, and/or his or her designee, pursuant to this section paid to the Director, and/or his or her designee, shall be deposited into a special account that shall be expended to fund the activities of the Sacramento County Environmental Management Department in enforcing this chapter.

6.32.560 Conduct of Administrative Hearings—Generally

(a). General. At the time set for hearing, the Hearing Officer shall state what the prima facie case is, what the burden of proof is, and what the ranges of penalties are. The Hearing Officer shall proceed to hear the testimony of the Director, and/or his or her designee, the person, and other competent persons respecting the circumstances of the violation, and other relevant facts concerning the matter. The Hearing Officer shall follow the rules of procedure for conducting hearings established by this Chapter.

(b). Record of Oral Evidence at Hearing. A record of the entire hearing proceedings shall be made by either a certified court reporter or any other means of permanent recording determined to be appropriate by the Hearing Officer. A transcript of the proceedings shall be made available to all parties upon request and upon payment of the fee prescribed therefore. Such fees may be established and revised from time-to-time by the Director, and/or his or her designee.

(c). Continuances. The Hearing Officer may, upon request of the person, a party in interest, or the Director, and/or his or her designee, grant continuances from time to time for good cause shown, or upon his/her own motion. Any continuance granted shall in no way diminish the responsibility of the person and/or parties in interest for maintaining the premises, nor affect other requirements of this Chapter regarding time for challenging any decisions made or actions taken.

(d). Oaths—Certification. The Hearing Officer or certified court reporter shall administer the oath or affirmation.

(e). Evidence Rules. Government Code of the State of California, Section 11513, as presently written, or hereinafter amended, shall apply to hearings conducted under this Chapter.

(f). Rights of Parties. Each party may represent themselves, or be represented by anyone of their choice. Each party may appear at the hearing and offer evidence in this matter and cross examine witnesses.

(g). Official Notice. In reaching a decision, official notice may be taken, either before or after submission of the case for decision, of any fact which may be judicially noticed by the courts of this state.

(h). Burden of Proof. The burden of proof in hearings held pursuant to this Chapter shall be as follows:
(1). In the case of any notice or order, the Director, and/or his or her designee, shall bear the burden of proof, by a preponderance of evidence, to show that a violation of this Chapter has occurred.
(2). In the case of a notice of administrative civil penalty, the Director, and/or his or her designee, shall bear the burden of proof, by a preponderance of evidence, to show that a penalty should be assessed.
(3). In the case of an appeal regarding the occurrence of a violation, or of required corrective actions, the appellant shall bear the burden of proof, by clear and convincing evidence, to show cause for amending or rejecting all or part of the corrective actions or requirements imposed by the Director, and/or his or her designee, by a Notice or Order.

6.32.570 Form and Contents of Decision—Finality of Decision

(a). Following the hearing, the Hearing Officer shall issue an order in writing no later than thirty (30) days from the date of the hearing, unless the time is waived by the parties. The order shall contain findings of fact and rationale appropriate to the violation and result, and a resolution of the essential issues raised, including the following:
(1). Confirmation or denial of the occurrence of violations of this Chapter that are alleged by the Director, and/or his or her designee;
(2). Confirmation or rejection of any administrative civil penalty sought by the Director, and/or his or her designee, and establishment of the monetary amount of any administrative civil penalty to be enforced; and
(3). Confirmation, amendment, or rejection of required corrective actions related to compliance with this Chapter that are imposed by the Director, and/or his or her designee, but only if those requirements are appealed by the person.

(b). The Hearing Officer's order shall uphold required corrective actions if the person fails to show clear and convincing evidence that the required corrective actions are unreasonable or unnecessary for achieving or demonstrating ongoing compliance with this Chapter. The Hearing Officer's order may amend, or reject required corrective actions, provided that compliance with this Chapter will be achieved.

(c). The Hearing Officer's order shall inform the person that failure to comply with the Hearing Officer's order shall constitute a misdemeanor and is subject to additional enforcement action, including criminal penalties and additional civil and administrative penalties.

(d). The Hearing Officer's order shall inform the person that the time and manner by which a person may file a challenge to the Hearing Officer's order is governed by Government Chapter Section 53069.4, or any successor provision thereto.

(e). The order issued by the Hearing Officer pursuant to this chapter shall be effective upon issuance. A copy of the order shall be delivered by the Hearing Officer in accordance with section 6.32.530 of this Chapter.

(f). Preparation of a record of the administrative proceeding shall be governed by the provisions of Chapter of Civil Procedure Section 1096.4

(g). Any challenge to the order of the Hearing Officer concerning any appeal or administrative civil penalty shall be governed by Government Chapter Section 53069.4, or any successor provision thereto. Service of the notice of appeal authorized by Government Chapter Section 53069.4 on the Sacramento County Environmental Management Department shall be served upon the Director.

(h). After any notice or order made pursuant to this chapter shall have become final, no person to whom any such order is directed shall fail, neglect or refuse to obey such order. The Director, and/or his or her designee, may pursue, through County Counsel or the District Attorney, appropriate judicial action against any person who fails to comply with any such notice or order, including charging that person with a misdemeanor offense.

6.32.580 Procedures for Collection of Administrative Civil Penalty

(a). The administrative penalty shall be due and payable within thirty (30) days after the Hearing Officer's decision is issued. If the penalty is not timely paid, the Director, and/or his or her designee, may pursue all reasonable and legal means in collecting those sums authorized and due.

(b). All administrative civil penalties collected from actions brought pursuant to this Chapter shall be paid to the Director, and/or his or her designee, enforcing this Chapter, and shall be deposited into a special account that shall be expended to fund the activities of the department to implement the applicable provisions of this Chapter.

6.32.590 Actions Not Prohibited

This chapter does not do any of the following:

(a). Otherwise affect the authority of the Director, and/or his or her designee, to take any other action authorized by any other provision of law.

(b). Restrict the power of a city attorney, district attorney, or the Attorney General to bring, in the name of the people of California, any criminal proceeding otherwise authorized by law.

(c). Prevent the Director, and/or his or her designee, from cooperating with, or participating in, proceeding specified in subsection 6.32.580(b).

6.32.600 Assessment.

If the total assessment determined as provided in Section 6.32.570 is not paid in full within thirty days after receipt of notice, the Director may record in the office of the County recorder a statement of the total balance due and a legal description of the property. From the date of such recording, the balance due shall be a special assessment against the described property.

6.32.610 Collection of Assessment.

The assessment shall be collected at the same time and in the same manner as ordinary ad valorem county taxes are collected, and shall be subject to the penalties and the same procedure and sale in case of delinquency as provided for county ad valorem taxes. All laws applicable to the levy, collection, enforcement and penalties of county ad valorem taxes shall be applicable to such assessment.

SACRAMENTO COUNTY

LOCAL AREA MANAGEMENT PROGRAM (LAMP)

PART THREE

Onsite Wastewater Treatment System

Guidance Manual

SACRAMENTO COUNTY

Onsite Wastewater Treatment System Guidance Manual

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Onsite Wastewater Treatment System Guidance Manual

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SACRAMENTO COUNTY

Onsite Wastewater Treatment System Guidance Manual

Introduction

BACKGROUND

The County of Sacramento Environmental Management Department (EMD) is the regulatory agency that oversees (1) the design, installation, and operation of on-site wastewater treatment systems (OWTS), (2) the management of non-discharging liquid waste systems, and (3) liquid waste disposal requirements associated with land use modifications such as subdivisions, parcel splits, and lot line adjustments. EMD regulates these elements within the unincorporated areas of Sacramento and incorporated cities within Sacramento County. An OWTS consists of tanks, pipes, boxes, and disposal fields used to convey, treat, store, or dispose of potentially harmful wastewater when those wastewaters are not directly and immediately disposed in a public sanitary sewer. The authority for EMD to develop and adopt OWTS regulations is established in the California Health and Safety Code, Section 101000 et seq. and Sacramento County Code (SCC), Section 2.15.030.

The enactment of the Porter-Cologne Water Quality Control Act in 1971 resulted in the formation of California State Regional Water Quality Control Boards (RWQCB). The RWQCBs are vested with the authority to require individuals or entities intending to dispose of wastewater that has the potential to contaminate surface or groundwater to obtain Waste Discharge Requirements (WDRs) from the appropriate RWQCB. WDRs are designed to ensure that surface and/or groundwater is not impaired by wastewater discharges. RWQCBs conditionally waive WDRs for OWTS when a local enforcement agency (e.g. EMD) adopts and enforces regulations that protect water quality to a degree consistent with the applicable basin plan.

In accordance with the regulatory authority referenced above, the County of Sacramento Board of Supervisors adopted Chapter 6.32 (On-site Management of Wastewater) of the Sacramento County Code (SCC). SCC 6.32 is an ordinance that regulates various aspects of wastewater treatment and disposal. EMD developed these regulations in conjunction with the most current scientific research available at the time the ordinance was written, and with the collaboration of the Central Valley RWQCB. This On-site Wastewater Management Guidance Manual (Manual) is intended to complement SCC Chapter 6.32. The Manual provides additional detail regarding the OWTS site evaluation and permitting process in such a manner that compliance with SCC 6.32 can be easily achieved.

DEFINITIONS (Sacramento County Code Section 6.32.030)

1. "Alternative system" means an on-site wastewater treatment system requiring supplemental treatment or a system designed to address unfavorable site conditions such as high groundwater, impervious soil formations, unacceptable percolation rates, and disposal field size limitations. For the purposes of this chapter, an alternative system does not include a standard gravity flow or pressure dosed system, or an experimental system.

2. "As-built drawing" means a drawing that depicts the final placement of an on-site wastewater treatment system once it has been installed.

3. "Beneficial uses of the waters of the State" shall mean, but not be limited to, the use of water for domestic, municipal, agricultural and industrial processes; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish,

wildlife, and other aquatic resources or preserves (California Water Code Section 13050(f)).

4. "Certification of completion" means a certificate issued by the Department indicating an on-site wastewater treatment system was installed in accordance with this chapter, the Manual, and any other conditions placed on the construction permit by the Department.

5. "Cesspool" means an excavation into the earth that is used for the reception, storage and disposal of untreated water carried sewage.

6. "Chemical toilet" means a watertight, portable, self-contained toilet which may contain an environmentally safe bactericide and/or deodorant. A chemical toilet serves the same purpose and has the same meaning as a portable toilet.

7. "Construction permit" means a written document issued and signed by the Department, which authorizes the permittee to begin the construction, installation, modification, replacement, or repair of an on-site wastewater treatment system, vault privy, wastewater holding tank, or wastewater treatment and/or processing facility.

8. "Construction site" means the location on which actual construction of a building is in progress (California Health and Safety Code Section 5416).

9. "Contamination" means impairment to the quality of the waters of the State from wastewater to a degree which creates a hazard to public health through toxicity or through the spread of disease. Contamination shall include any equivalent effect resulting from the disposal of wastewater, whether or not waters of the State are affected (California Health and Safety Code Section 5410(d)).

10. "Deep trench" means any excavation into the earth that is longer than it is wide, extends into a permeable soil stratum, but not into a subterranean water-bearing stratum, is intended to accept and dispose of septic tank effluent, and the bottom of which terminates more than five feet below ground surface.

11. "Department" means the Environmental Management Department of the County of Sacramento.

12. "Development" means the uses to which the land which is the subject of a map shall be put, the buildings to be constructed on it, and all alterations of the land and construction incident thereto (California Government Code Section 66418.1).

13. "Director" means the Director of the Environmental Management Department of the County of Sacramento.

14. "Disposal field" means an area located on a parcel, above, at, or below ground surface, with appropriate surface cover, which has suitable soil conditions to effectively receive,

disperse, and/or dispose of treated or untreated septic tank effluent in a manner compliant with SCC Chapter 6.32 and the On-Site Wastewater Management Guidance Manual.

15. "Disposal field bed" means any excavation into the earth that is wider than three feet, extends into a permeable soil stratum, but not into a subterranean water-bearing stratum, is intended to accept and dispose of septic tank effluent, and the bottom of which terminates less than five feet below ground surface.

16. "Disposal field bottom" means the bottom of a disposal field bed, trench, or seepage pit.

17. "Domestic strength wastewater" means wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities and garbage disposals. Domestic wastewater does not include industrial/commercial-process water and will typically have total suspended solids of three hundred (300) mg/L and an available five-day biochemical oxygen demand less than three hundred (300) mg/L.

18. "Drainage system" means and includes all the piping within public or private premises that conveys wastewater to a point of disposal, but does not include the mains or laterals of a public sewerage system.

19. "Effective absorptive area" means sidewall or bottom area of a disposal field bed, trench or seepage pit, located below the point at which effluent is released from the disposal field piping, and consisting of undisturbed native soil strata having acceptable percolation rates and/or soil texture classifications meeting the requirements of this Manual.

20. "Effective absorptive soil" means soils with acceptable percolation rates and/or soil texture classifications meeting the requirements of this Manual.

21. "Effluent" means the wastewater discharged from any on-site wastewater treatment system.

22. "Experimental system" means any system that:

    a. Does not have design guidelines adopted by the State Water Resources Control Board, the Department; or

    b. Is a proprietary device or method that has not yet been evaluated and approved by the State Water Resources Control Board or the Department.

23. "Failure" means an on-site wastewater treatment system, vault privy, wastewater holding tank, or sewage pump-out station that:

a. Fails to accept wastewater, thereby creating backup of wastewater into the structure;

b. Discharges untreated or inadequately treated wastewater to the ground surface, or waters of the State;

c. Exceeds the designed flow rate;

d. Causes contamination or pollution to groundwater;

e. Is not operated in compliance with permit requirements for operation, monitoring, and maintenance as specified in the Manual;

f. Results in the upward migration or ponding of wastewater above a tank or in a disposal field area;

g. Has non-functioning mechanical and/or electrical devices including, but not limited to, pumps, valves, control panels, or disinfection units;

h. Results in the daylighting of wastewater from the sides of a disposal field mound or from the side of a cut and fill bank;

i. Allows for the seepage of wastewater through the bottom or sides of a septic tank, pump tank, holding tank, or vault due to defects in material craftsmanship, natural environmental processes, material deterioration or structural defects;

j. Has a static wastewater level above the bottom of the effluent outlet in the septic tank or pump tank.

24. "Floodway" means areas of land subject to annual flooding from surface waters or rainwater runoff.

25. "Graywater" means untreated wastewater which has not been contaminated by toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and which does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. Graywater includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs but does not include wastewater from kitchen sinks or dishwashers (California Water Code Section 14876).

26. "Grease trap" means a plumbing appurtenance or appliance that is installed in a sanitary drainage system that removes non-petroleum fats, oil, and/or greases (FOG) from a wastewater discharge. For purposes of this Manual, a grease trap shall also include a grease interceptor.

27. "Groundwater" means all water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water that flows in known and definite channels (California Water Code Section 10752).

28. "High strength wastewater" means wastewater from an establishment, home, or business having a biochemical oxygen demand greater than three hundred (300) mg/L or total suspended solids greater than three hundred (300) mg/L.

29. "Holding tank" means any watertight container designed to receive and store wastewater for disposal at a different legal disposal location.

30. "Industrial/commercial-processed water" means wastewater from commercial or manufacturing operations that is not sewage but may contain products detrimental to human health or waters of the State.

31. "Land use project" means any entitlement process for development requiring a discretionary action and includes, but is not limited to, tentative subdivision maps, rezones, parcel maps, use permits, certificates of compliance, and boundary line adjustments.

32. "Leach line trench" means any excavation into the earth that is longer than it is wide, extends into a permeable soil stratum, but not into a subterranean water-bearing stratum, is intended to accept and dispose of septic tank effluent, and the bottom of which terminates less than five feet below ground surface.

33. "Licensed installer" means an individual possessing a valid General A Engineering, C-42, or C-36 license issued by the State of California.

34. "Liquid waste" means all nonhazardous wastes that are neither solid nor gaseous.

35. "Lot" means a parcel of land.

36. "Modification" as in system modification, means any addition to or change in the layout of an existing on-site wastewater treatment system, wastewater holding tank, vault privy, or sewage pump-out station for purposes other than to address a failure.

37. "Nuisance" means anything which:

    a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; and

    b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and

c. Occurs during, or as a result of, the treatment or disposal of wastes (California Health and Safety Code Section 5410(f)).

37. "On-site wastewater processing and/or treatment facility" means all contiguous land and structures, other appurtenances, and improvements on the land used for the processing and/or treating of wastewater whereby such actions accomplish a measurable reduction in wastewater strength or composition. Such actions shall include, but not be limited to, the reduction of solids or organics, dewatering, coagulation, settling, filtration, aeration, and anaerobic digestion.

38. "On-site wastewater treatment system (OWTS)" means any system of piping, tanks, and/or disposal fields that effectively collect, hold, treat, and/or disposes of sewage without the use of community-wide sanitary sewers or sewage systems.

39. "On-Site Wastewater Management Guidance Manual (Manual)" means a manual developed by the Department containing guidelines for the siting, design, installation, operation, and maintenance of on-site wastewater treatment systems, wastewater holding tanks, vault privies, portable toilets and may include guidelines for the use of any other tank or device designed to effectively hold, treat, or dispose of wastewater.

40. "Operation and maintenance specialist" means an individual that is authorized by the Department to inspect, service, operate, and maintain an on-site wastewater treatment system while meeting the requirements for qualification as specified in this chapter.

41. "Parcel" means a piece of land shown upon a subdivision map, record of survey map, or described by metes and bounds that has been recorded in the County or appropriate City Recorder's office.

42. "Pollution" means an alteration in the quality of waters of the State by waste to a degree which unreasonably affects:

    a. Such waters for beneficial uses; or

    b. Facilities which serve such beneficial uses. "Pollution" may include "contamination" (California Health and Safety Code Section 5410(e)).

43. "Portable toilet" means a watertight, portable, self-contained toilet which may contain an environmentally safe bactericide and/or deodorant. A portable toilet serves the same purpose and has the same meaning as a chemical toilet.

44. "Pressure dosed on-site wastewater treatment system" means a standard on-site wastewater treatment system utilizing pressure dosing technology to distribute septic tank effluent throughout the disposal field.

45. "Pressure dosing" means a method of effluent distribution designed to distribute wastewater equally and evenly throughout a disposal field by placing the effluent under pressure in a disposal pipe.

46. "Public entity" means a local agency, as defined in the State of California Government Code Sections 53090 et seq., which is empowered to plan, design, finance, construct, operate, maintain and to abandon, if necessary, on-site wastewater treatment systems and on-site wastewater treatment facilities serving a land development. In addition, the entity shall be empowered to have supervision over the location, design, construction, operation, maintenance, and abandonment of on-site wastewater treatment systems within a land development, and shall be empowered to design, finance, construct, operate, and maintain any facilities necessary for the disposal of wastes pumped from the individual on-site wastewater treatment systems and to conduct any monitoring or surveillance programs required for water quality control purposes.

47. "Public sanitary sewer" means a sewage disposal system operated and maintained by a municipality, district or public corporation organized and existing under and by virtue of the laws of the State of California.

48. "Registered professional" means an individual who possesses a current registered environmental health specialist certificate issued by the State of California, or is currently licensed with the State of California as a professional civil engineer or professional geologist.

49. "Repair" as in system repair, means the installation, replacement, and/or relocation of any portion or portions (</=100%) of an on-site wastewater treatment system, wastewater holding tank, vault privy, or sewage pump-out station necessary to correct a failure, eliminate a public health hazard, or prevent contamination.

50. "Replacement" as in system replacement, means the entire system is replaced to correct a failure, eliminate a public health hazard, or prevent contamination.

51. "Restricted Area" means a geographical area located in Sacramento County, of which has been determined through years of data compilation, as having soil characteristics that are such that additional soil studies are required to determine the design of an OWTS (referenced by the Test Drill Map)

52. "Restrictive layer" means low permeability earth materials including rock, hard pan, or other type of restrictive layer which will prevent or significantly retard the downward migration of wastewater.

53. "Seepage pit" means an excavation into the earth that is cylindrical in shape, deeper than it is wide, extends into a permeable soil stratum, but not into a subterranean water-bearing stratum, is filled with clean drain rock, is used for the disposal of septic tank effluent, and is protected at the top with a concrete cover.

54. "Septage" means materials accumulated in septic tanks, cesspools, vault privies, portable toilets, holding tanks, or any other sewage holding apparatus that receives bodily waste or wastewater from plumbing fixtures. Septage does not include sewage sludge from municipal or community sewage treatment plants.

55. "Septic tank" means a watertight receptacle with a minimum of two compartments that is intended to receive the discharge from a drainage system or part thereof and is designed and constructed so as to retain solids, digest organic matter through a period of retention, and allow clarified effluent, but not scum or solids to discharge into a disposal field meeting the requirements of this chapter.

56. "Sewage" means liquid waste typically associated with human occupancy and includes wastewater from toilets, kitchen sinks, and dishwashers, but does not include graywater provided the graywater is not mixed with sewage.

57. "Sewage pump-out station" means a system of hoses, pumps, pipes, and tanks that are designed to remove and/or transfer wastewater from a vehicle or marine vessel's wastewater holding tank for discharge into an on-site wastewater treatment system or wastewater holding tank.

58. "Site evaluation" means an assessment of the characteristics of a parcel sufficient to determine its suitability for the installation and sustainability of an on-site wastewater treatment system meeting the requirements of this chapter. A site evaluation shall take into consideration all public and environmental health aspects relating to the installation and operation of an on-site wastewater treatment system including, but not limited to, approved setbacks, anticipated wastewater flow, anticipated wastewater strength, soil texture, soil percolation rate, depth to groundwater, site topography, and useable space for the installation and repair of the wastewater disposal fields.

59. "Site evaluation report" means a report prepared by a registered professional or other individual approved by the Department that includes all information obtained from a site evaluation including detailed information regarding the design parameters of the on-site wastewater treatment system. The report will be used by the Department to ensure that a parcel is capable of sustaining an on-site wastewater treatment system that complies with this Manual.

60. "Standard system" means an on-site wastewater treatment system comprised of a two-compartment septic tank for primary treatment and a disposal field. The effluent will flow to the disposal field by gravity, or may be pumped to the first distribution box in the disposal field area.

61. "Substandard tank" means any tank that is not approved by the Department; or is constructed of wood or brick; or any tank constructed of concrete, fiberglass, polyethylene, or other similar material which has deteriorated to an extent that it

cannot effectively hold and/or treat wastewater; or because of its condition poses a threat to public health or safety; or is not designed for its intended use.

62. "System evaluation" means an expression of professional opinion stating that an existing on-site wastewater treatment system, wastewater holding tank, or vault privy is constructed and operating in compliance with the standards set forth in this Manual. Evaluations shall be performed by a licensed installer or other individual approved by the Department and shall not constitute a warranty or guarantee either expressed or implied.

63. "Test Drill Map" is a geographical map of Sacramento County, created from years of data compilation, that designates certain areas of the County that require an alternate OWTS design, or additional soil studies to determine the design of an OWTS

64. "Treatment" means any process or action that accomplishes a measurable reduction in wastewater strength or separation of liquid from solids, such as the reduction of solids or organics, dewatering, coagulation, settling, filtration, or aeration.

65. "Useable space" means a dedicated area of land on a parcel capable of sustaining the installation and operation of an on-site wastewater treatment system compliant with this Manual.

66. "Vault Privy" means a structure or outbuilding intended or used for the reception of human excreta and under which is a pit or watertight vault.

67. "Waste" means sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any production, manufacturing, or processing operation of whatever nature (Health and Safety Code Section 5410).

68. "Wastewater" as used in this chapter shall mean liquid waste typically associated with human occupancy that includes wastewater from toilets, kitchen sinks, and dishwashers, and may include graywater or other liquid waste determined by the Department to be detrimental to public health and/or the environment if not properly handled, treated, and/or disposed of. For purposes of this chapter, wastewater shall not include hazardous waste as defined in Sections 25115 and 25117 of the California Health and Safety Code.

69. "Wastewater hauler" means any person or firm carrying on or engaging in the business of removing, and/or disposing of the contents from septic tanks, portable toilets, cesspools, sewage seepage pits, grease traps, holding tanks, or any other tank or vault used to hold and/or treat wastewater.

70. "Waters of the State" means any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code Section 13050(e)). (SCC 1465 § 2, 2010.)

ORGANIZATION OF THIS MANUAL

This Manual is organized into Parts One through Five and Appendices. The Parts discuss the following aspects of Sacramento County Code Chapter 6.32:

- **PART ONE**: The OWTS permitting process for a new installation or a repair of an existing system.
- **PART TWO**: The design, construction, and installation requirements for OWTS.
- **PART THREE**: Requirements for non-discharging wastewater treatment systems such as holding tanks, pit privies, and portable toilets.
- **PART FOUR**: Operation and maintenance requirements for OWTS.
- **PART FIVE**: Siting and design requirements for subdivisions, parcel splits, lot line adjustments, use permits, and building permit approvals.

SACRAMENTO COUNTY

Onsite Wastewater Treatment System Guidance Manual

PART ONE

Permitting and Site Evaluation Process

CHAPTER 1 – GENERAL BACKGROUND (SCC 6.32.050, 190, 210)

Every residence, place of business, or other building or place where persons reside, congregate, or are employed must have an approved means of sewage disposal that complies with SCC Chapter 6.32. In most cases, wastewater must be discharged via connection to public sanitary sewer or an OWTS. In unique situations, the Department may authorize the use of wastewater holding tanks, vault privies, or portable toilets to satisfy this requirement.

For those properties located within the Sacramento Area Sewer District (SASD), any property located within 200-feet of a public sewer, the property must be connected to the public sewer unless an acceptation is granted. The request for an acceptation is described in Chapter 3 E .

Any OWTS that proposes a flow of over 10,000 gallons-per-day must notify the Regional Water Quality Control Board and is not covered under this Manual.

The following are prohibited:

1. Cesspools of any kind.

2. Effluent disposal that discharges on or above the post installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands or a pond.

3. OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks.

Pursuant to SCC 6.32.190, no person shall construct, destroy, repair, alter or relocate an OWTS without obtaining a permit from this Department. Repairs or modifications required due to a failed system that creates a public health and safety hazard may be performed without first obtaining a permit provided the Department is notified prior to the time the work is to be performed. Notification shall be accomplished by contacting the Department at (916) 875-1500. Leave a message with the address of the parcel where the system is located, and the nature of the repair. A permit must be submitted to EMD by the next business day. The following actions DO NOT require a permit:

1. Replacing tight lines or clearing blockages in pipes.

2. Servicing or replacing installed mechanical or electrical parts of an OWTS, such as float switches, pumps, and electrical boxes.

3. Replacing sanitary tees in septic tanks.

4. Making minor structural corrections to the septic or pump tank such as riser or lid replacement.

5. Clearing blockages in a distribution box provided the box is not altered, modified, or replaced.

6. Repairing or replacing the main discharge line from the house to the tank or from the tank to the distribution box.

CHAPTER 2 – THE PERMITTING PROCESS (SCC 6.32.170, 190, 270)

All permitted OWTS work shall be performed by a licensed septic system contractor who is experienced with OWTS design, operation, and maintenance. The installer must have knowledge of the area geology, state and local regulations, and Department policy.

Prior to Department's permit approval to install, alter, modify, or repair an OWTS, the applicant must satisfy applicable site evaluation criteria as described in Chapter 4. The site evaluation ensures that the OWTS will be installed, altered, expanded, or repaired with minimal impact to public health, the environment and both surface and ground water.

CHAPTER 3 – PERMIT APPLICATION

A. Authorized Individuals (SCC 6.32.170)

Permit applications to construct, repair, or modify an OWTS can only be obtained by an individual or entity who:

1. Possesses a valid C-36, C-42, or General A contractor's license issued by the State of California. General B contractors may also obtain a permit provided they are operating in compliance with the requirements required by the California State Contractor's Licensing Board for General B contractors (responsible for completing at least three additional construction disciplines pertaining to the general project on the parcel).

2. Is the legal owner of the parcel upon which the OWTS is to be installed, modified, or repaired, or is the parcel owner's authorized agent. If the property owner's authorized agent applies for the permit, an authorization letter, signed by the property owner, must be submitted together with the permit application.

B. Application Requirements (SCC 6.32.200)

1. A permit to construct, repair, or modify an OWTS must be obtained prior to commencing work.

2. All sections of the application must be complete and legible.

3. The applicable installation or repair permit fee must be paid to the Department at the time of, or prior to application submittal.

C. Plot Plan Requirements (6.32.220)

1. All permit applications shall be accompanied with a plot plan showing the proposed placement or the existing location of the OWTS on the parcel in relationship to other site features. The plot plan must verify that the OWTS and/or replacement disposal field area can be installed in compliance with all setback requirements described in this Manual. For projects requiring building permits, the Department may issue a "tentative plot plan approval" prior to OWTS permit approval in order for the applicant to obtain a building

permit. In such cases, the plot plan must match the plot plan submitted to the building authority. In some cases a site evaluation must be completed prior to tentative plot plan approval.

2. The plot plan must clearly delineate the following (SCC 1465 § 2, 2010):

    a. The proposed location of new OWTS or the location of existing OWTS and components, and replacement areas;

    b. Lot dimensions, including all property lines;

    c. Setbacks and side yards;

    d. Paved areas and unpaved areas subject to vehicular traffic;

    e. Easements and rights-of-way, public and private;

    f. Structures, dwellings (including pools and auxiliary buildings);

    g. Animal enclosures;

    h. Fuel tanks, hazardous material storage;

    i. Plumbing stub-out;

    j. Water lines (public and private);

    k. Areas subject to flooding, inundation, or storm water overflow associated with a ten-year storm event;

    l. Existing and proposed wells, abandoned wells, springs, neighboring wells, streams, ditches, canals, culverts, ponds, lakes, swales, vernal pools, 10 year flood plains, or any body of water (intermittent or perennial) located within one hundred 100 feet of property lines;

    m. Abandoned septic tanks, pretreatment and storage devices, sewer lines, storm sewers;

    n. Location(s) of soil profile test holes, percolation test holes, and groundwater observation wells, as applicable;

    o. Percent and direction of slope in disposal field area and 50 feet adjacent to it on all sides. A contour map is recommended for this purpose, and may be required by EMD depending on conditions observed at the site;

    p. Trees within 10 feet of sewage disposal areas (including replacement areas);

q. Underground utilities within 10 feet of the OWTS (including replacement area);

r. Cut banks, unstable land forms, bluffs and ravines;

s. Floor plan indicating number of bedrooms.

D. Application Acceptance (6.32.190)

Once accepted, the Department will approve, conditionally approve, or disapprove the permit application. The permit applicant will be notified of the Department's decision once the review has been completed. In no case shall site work begin until the permit applicant has received an approved permit from the Department.

E. Public Sewer Availability

Sacramento Area Sewer District Ordinance SDI-0068 2.1.1 requires the connection to public sewer if sewer is available within 200 ft of the property. Section 2.1.2 defines the availability of the public sewer. The public sewer **is not** available when one or more of the following apply:

1. The public sewer is more than 200 ft from the property.

2. Connection is not practical in terms of physical configuration or property access.

3. For residential property only, the total costs to connect are greater than twice the total cost to repair or reconstruct the existing septic system.

Applicant must provide a repair or reconstruction cost estimate with the OWTS permit application, prepared by a licensed contractor or professional engineer. SASD will make the determination as to public sewer availability.

CHAPTER 4 – SITE EVALUATION (SCC 6.32.270)

A site evaluation is an assessment of parcel characteristics to determine its suitability for the installation and continuous operation of an OWTS, and to ensure that OWTS remain in compliance with state and local regulations protecting public health and the environment. A site evaluation is required to determine design parameters for new OWTS and permit-required repairs or modifications to existing systems (see Chapter 1).

Site evaluations are also required prior to submitting an application for a tentative subdivision or parcel map. Refer to Part Five of this Manual for specific information regarding OWTS requirements for subdivisions, lot line adjustments, use permits, and building permits.

At the Department's discretion, the site evaluation or elements may be waived if:

A. A site evaluation has previously been conducted by a registered professional or other individual accepted by the Department, and the evaluation was conducted in the area of the proposed project.

B. The Department has reason to believe that soil conditions in the specific geographical area of the County under consideration are so homogeneous that previous site evaluations or geotechnical explorations conducted in close proximity to the proposed project area will provide sufficient information regarding soil type, percolation rate, and depth to groundwater to determine the viability of the proposed project.

C. Performance characteristics and design specifications of nearby existing OWTS are available and sufficient to determine that an OWTS can be installed or repaired in compliance with both local and state regulations.

CHAPTER 5 – SITE EVALUATION APPLICATION (SCC 6.32.280)

A. A site evaluation application shall be submitted to and approved by the Department prior to performing the evaluation.

B. Site evaluation applications will only be accepted by the Department when the following conditions have been met:

1. All sections of the application are complete and legible.
2. Clear, written directions to the site have been provided.
3. The application includes a plot plan indicating the proposed location of the OWTS, all setbacks, and primary and reserve disposal fields in relationship to property boundaries and landmarks.
4. The application is signed by the applicant.
5. All required fees have been paid to EMD.

CHAPTER 6 – SITE EVALUATION CONSIDERATIONS (SCC 6.32.270)

The site evaluation shall take into consideration the following site characteristics when determining the placement and design for an OWTS:

A. Influent wastewater strength and quantity;

B. Separation between disposal field bottom and groundwater or restrictive soil layers;

C. Required setbacks for all components of the OWTS including the replacement disposal field area and consideration not to cross property lines;

D. Acceptable ground slope in the proposed disposal field areas;

E. Acceptable soil application rates;

F. The required level of wastewater treatment so as to not adversely affect water quality or endanger public health;

G. Parcel size;

H. Effective absorptive soil in the disposal field area (primary and replacement);

I. Fluctuating groundwater levels;

J. Seasonal saturated soil conditions;

K. Soil bearing capacity with respect to proposed OWTS design;

L. Appropriate mitigation measures when acceptable site conditions for installing and operating a standard gravity flow OWTS cannot be achieved.

A registered professional (registered environmental health specialist [REHS], professional civil engineer [P.E.], professional geologist [P.G.]) must perform a site evaluation in cases where (1) the site cannot support the installation of a standard gravity flow OWTS, (2) the anticipated daily wastewater flow exceeds 3000 gallons per day, or (3) wastewater strength is greater than domestic strength wastewater.

CHAPTER 7 – SITE EVALUATION REQUIREMENTS

A. Soil Profile (SCC 6.32.300)

1. For all disposal field types other than seepage pit or deep trench, a minimum of eight soil profiles shall be required on each parcel to determine site suitability for an on-site wastewater treatment system. Four soil profiles shall be excavated in both the primary and reserve disposal field areas.

2. For seepage pit and deep trench disposal fields, a minimum of one soil profile in both the primary and reserve disposal field areas will be required.

3. At the Department's discretion, additional soil profiles by may be required to adequately characterize site conditions or demonstrate soil uniformity.

4. The Department may approve fewer soil profiles on a case-by-case basis depending on specific site conditions, areal limitations, or uniformity in initial soil profile soil characteristics.

5. All soil profiles shall be excavated to Cal-OSHA standards.

6. All soil profiles shall be performed in representative areas of both the proposed primary and reserve disposal fields to adequately characterize site conditions.

7. Soil must be logged using the USDA soil classification system or other Department approved classification system.

8. Soil profile dimensions

    a. Shallow disposal field (trench bottom less than 5 feet)

        i. Soil profiles are generally excavated by backhoe, but may be hand-dug when appropriate dimensions and spoils pile setback are maintained. The profiles must be at least 2 feet wide and must extend to a depth of at least 5 feet below proposed trench bottom to verify groundwater separation and soil lithology.

        ii. Soil profiles must be excavated in a manner that complies with OSHA requirements while allowing the evaluator to observe soils.

    b Deep trench or seepage pit (trench/pit bottom 5-40 feet below ground surface)

        i. The Department recognizes soils of type I and II (unconsolidated sands, silty sands, sandy loams) as acceptable soils when determining the effective absorptive sidewall area of deep trenches and seepage pits.

        ii. Soil profile borings for deep testing are generally excavated with a bucket auger or other drill rig capable of drilling a 3 foot diameter hole to a minimum of 45 feet. A backhoe is generally used for testing at shallower depths.

        iii. Soil profile boring depths shall extend at least 5 feet below the proposed disposal field bottom and at least 10 feet below the bottom of a seepage pit greater than 25 feet below ground surface to verify separation from groundwater.

B. Percolation Testing (SCC 6.32.310)

1. Percolation tests may only be performed by a registered professional who is experienced in OWTS technology and design.

2. For all disposal field types other than a seepage pit or deep trench, a minimum of six percolation tests shall be required on each parcel to determine site suitability for an OWTS. Three percolation soil profile borings shall be performed in both the primary and reserve disposal field areas.

3. Seepage pit and deep trench type disposal fields shall have a minimum of one percolation test in both the primary and reserve disposal field areas unless otherwise waived by the Department.

4. At the discretion of the Department, additional percolation testing may be required to adequately characterize site conditions or demonstrate soil uniformity. Requests for fewer percolation tests may be approved by the Department and shall be determined on a case-by-case basis.

5. All percolation soil profiles shall be performed in representative areas of both the proposed primary and reserve disposal fields to adequately characterize site conditions (SCC 1465 § 2, 2010.)

6. Percolation testing procedure

    a. For shallow disposal fields (up to 5 feet in depth):

        i. There shall be a minimum of three percolation tests performed in addition to the soil evaluation for each disposal field area. In cases where the primary and reserve disposal field areas are separated by no more than 20 feet, a total of three percolation tests may be allowed if soil characteristics for each area are similar. Nothing in this section shall prohibit the Department from requiring additional soil profiles to further identify disposal field suitability.

        ii. The diameter of the percolation test holes shall be 6 to 8 inches.

        iii. The bottom of the percolation soil profile boring shall be at a depth equal to the proposed disposal field trench bottom or within the most restrictive strata of useable soil beneath the dispersal field.

        iv. The sidewall of the percolation soil profile boring must be roughened to remove any smearing or compaction related to the excavation process. All loose soil shall be removed and 2 inches of pea gravel or other material approved by the Department shall be placed in the bottom of the hole.

        v. The percolation soil profile boring may be used with or without a gravel side pack.

        vi. , The soil profile boring must be presoaked with clean water for a minimum of four hours prior to percolation testing. The depth of the water must remain at least 12 inches above the bottom of the soil profile boring during the four hours.

        vii. Percolation rates shall be measured to the nearest 1/8 of an inch from a fixed reference point.

viii. At the beginning of the percolation test, the water level in the soil profile boring must be adjusted to a depth of6 inches above the pea gravel bottom.

b. For deep trench disposal fields (five to twenty-five feet in depth):

i. At least one soil profile shall be excavated to either the water table or 10 feet below the proposed trench depth, whichever comes first. The soil profile shall be at the lowest elevation.

ii. The percolation soil profile shall be performed in each representative area of the proposed primary and reserve disposal fields. A driller's log indicating soil types and depth-to-groundwater, if applicable, shall be prepared.

iii. All percolation tests shall be made in three-foot diameter pits unless otherwise approved by the Department, and landed at least five feet above the known water table in undisturbed soil.

iv. The soil profile boring shall be filled twice with water and allowed to soak overnight over the entire depth of the profile prior to percolation testing.

v. The depth to water after overnight soaking shall be recorded.

vi. Prior to beginning the percolation test, the soil profile boring must be filled with water until the water level is 3 feet below grade.

vii. The time interval for the water to fall one foot shall be recorded. Successive time intervals shall be recorded for each 1 foot drop in water until the water level drops five feet.

viii. Repeat number (vii) above until the rate measured at the4 foot level does not vary by more than10 percent.

ix. The slowest rate measured within ± 3 inches of the4 foot level shall be considered the design percolation rate.

c. For seepage pit disposal fields:

i. At least 1 soil profile boring shall be advanced to the water table or ten feet below the proposed pit bottom if groundwater is not encountered.

ii. A minimum of1 percolation test shall be made in the proposed disposal field area. The Department may require additional percolation tests based on observed soil conditions.

iii. All percolation tests shall be made in 3 foot diameter pits landed at least ten feet above the known water table and in undisturbed/native soil.

iv. The test holes must be filled with rock as a safety measure, with a sounding pipe placed in the pit for measuring purposes.

v. The percolation test hole shall be presoaked with water prior to performing the percolation test.

vi. Presoaking shall be accomplished by filling the soil profile boring to the top with water, then allowing the water to percolate into the soil until the water level reaches the 15 foot below ground surface level. The soil profile boring shall be filled to the top a second time with water and then the soil profile boring must be allowed to sit overnight before percolation testing may begin.

vii. Depth to water after overnight soaking shall be recorded.

viii. Before percolation rate measurements are recorded, the test hole must be filled to the top with water.

ix. The time intervals and water level readings shall be taken from the 5 foot level to the fifteen foot level before refilling the percolation test hole.

x. Fillings shall be repeated until successive percolation rates do not vary more than 10 percent. The slowest rate measured within ± 6 inches of the 10 foot level shall be considered as the design rate of percolation.

7. Percolation rate readings shall be taken at 30 minute intervals. The soil profile boring must be refilled as necessary to maintain 6 inches of water above the pea gravel bottom at each 30 minute interval. Readings shall be taken until two consecutive readings do not vary by more than 10 percent per reading, with a minimum of 3 readings. The last 30 minute interval is used to compute the percolation rate. If 4 inches or more of water seeps from the boring during the 30 minute interval, readings may be taken at 10 minute intervals. In such case readings shall be taken until 2 consecutive readings do not vary by more than 10 percent per reading with a minimum of 3 readings. The last 10 minute interval is used to compute the percolation rate. The correction factors found in Table 2 shall be used for gravel packed-borings to determine the corrected percolation rate:

Table 2.

Percolation Rate Correction Factor for Gravel Packed Holes

Hole Diameter	Gravel Pack Thickness	Correction Factor
6"	1"	1.59
6"	1/2"	1.27
7"	1/2"	1.04
8"	**1"**	**1.14**

Corrected percolation rate in minutes per inch (MPI) = Observed percolation rate (MPI) X correction factor.

C. Seasonal High Groundwater Monitoring (SCC 6.32.320)

1. The Department may require information pertaining to seasonal high groundwater levels prior to approving a design for an OWTS or a proposal for a subdivision of land to ensure compliance with groundwater separation requirements as specified in this Manual. Areas proposing to utilize OWTSs that are subject to monitoring include, but are not limited to:

    a. Valleys, ravines, swales

    b. Areas near waterways or springs

    c. Areas with soils having confined and unconfined sand and gravel strata

    d. Areas with shallow topsoil

    e. Areas with soil strata that show mottling and/or grey to black colorations

    f. Areas with a known history of seasonal high groundwater

    g. Areas with swampy/marshy appearances or supporting the growth of water-seeking vegetation such as cattails, willows, perennial grasses.

2. A registered professional or other individual accepted by the Department shall perform all groundwater monitoring, and all data shall be collected in coordination with the Department.

3. An application shall be submitted to the Department prior to beginning of such monitoring.

4. The appropriate fee if applicable has been paid to the Department.

5. Seasonal high groundwater monitoring shall be performed once between the months of November through April.

CHAPTER 8 – SITE EVALUATION REPORT (SCC.6.32.290)

A. Following the completion of all soils testing, a site evaluation report shall be forwarded to the Department for review.

B. Unless the Department specifies otherwise, a site evaluation report shall contain the following information:

1. A scaled (1" = 50' minimum) site plan identifying the location of all soils testing performed;
2. A brief description of the site characteristics and soil testing methodology;
3. All soils testing data including but not limited to classifications of the encountered soils and raw percolation test results;
4. Monitoring requirements (if applicable)
5. A scaled (1" = 50' minimum) drawing of the proposed on-site wastewater treatment system including, but not limited to:
    a. Required setbacks
    b. Disposal field type
    c. Required disposal field size
    d. Location of reserve disposal field area
    e. Disposal field design parameters (depth, width, length, rock size, pipe size, etc.)
    f. Tank size and location
    g. Anticipated wastewater strength and quantity

SACRAMENTO COUNTY

Onsite Wastewater Treatment System Guidance Manual

PART TWO

Sizing and Design

CHAPTER 9 – STANDARD VS. ALTERNATIVE SYSTEMS (SCC 6.32.340, 240)

The Department discourages the use of alternative OWTS in lieu of a standard gravity flow or standard pressure-dosed system when the proposed site can meet the requirements for the installation of such system. Alternative OWTS require an annual operating permit issued by this Department.

CHAPTER 10 – DESIGN CONSIDERATIONS (SCC 6.32.340)

All OWTS shall be designed based on the following:

A. Available effective absorptive area in both primary and reserve disposal fields;

B. Separation between disposal field bottom and groundwater or a restrictive soil layer;

C. Ground slope in both the primary and reserve disposal field areas;

D. Influent wastewater strength and quantity;

E. Setback requirements; and

F. The required level of wastewater treatment so as to not adversely affect water quality or endanger public health.

CHAPTER 11 – SOIL REQUIREMENTS (SCC 6.32.340)

	Percolation Rates	Soil Texture[1]	Separation to Groundwater	Separation to Restrictive Layer	Ground Slope
Standard Leach Line/Bed (shallow trench)	5-60 mpi	A-D	5 Feet	5 Feet	<30%
Standard Deep Trench	5-60 mpi	A-B	5 Feet	5 Feet	<30%
Standard Seepage Pit	5-60 mpi	A-B	10 Feet	5 feet	<30%
Pressure Dosed Leach Line/Bed	0-120 mpi	A-D	3 Feet	3 Feet	30% <30%
Alternative	<5, >120 mpi	A-D	<3 to 2 feet	N/A	<30%[2]

1. All effective absorptive soil shall be non-cemented.
2. See requirements for steep slope systems in Chapter 26 of this Manual

CHAPTER 12 – PROJECTED DAILY WASTEWATER FLOW (SCC 6.32.340 E)

Residential

2 Bedroom	350 gallons
3 Bedroom	400 gallons
Each additional bedroom after 3	100 gallons
Second dwelling (guest home), condominium, multifamily (duplex, triplex, etc.)	Same as for full single-family residence

Commercial

Type of Business or Facility	Minimum Flow (Gallons per Day)
Barbershop/salon	100 (per chair)
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)
Churches	
with kitchen	15 (per seat)
without kitchen	5 (per seat)
Country clubs	
per resident member	100
add per nonresident member present	5
add per employee	15 (per 8-hour shift)
Dentist office	
per wet chair	200
add per non-wet chair	15
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	

Type of Business or Facility	Minimum Flow (Gallons per Day)
with private baths	100 (per room)
without private baths	80 (per room)
Institutions other than hospitals	125 (per bed)
Laundries, self-service washing machines	500 (per machine)
Limited agricultural building	100 (per building)
Mobile home parks	250 (per space)
Parks, public picnic areas	
with toilet wastes only	5 (per person)
with bathhouses, showers and flush toilets	10 (per person)
Restaurants	
with multi-use utensils	50 (per seat)
with single service utensils	25 (per seat)
with bars and/or cocktail lounges	50 (per seat)
Retail stores	
for customer	Use comparable flows from similar businesses and population
add for each employee	15 (per 8-hour shift)
Shopping center	2 (per parking space)
Schools	
boarding	100 (per person)
day (without gyms, cafeterias or showers)	15 (per person)
day (with gyms, cafeterias and showers)	25 (per person)
day (with cafeteria, no gym or showers)	20 (per person)
Service stations	500 for 1st pump set, 300 for each additional
Swimming pools and bathhouses	10 (per person)
Theaters	
movie	5 (per seat)
drive-in	20 (per car space)
Recreational vehicle parks	
without individual water and sewer hookups	50 (per space)
with individual water sewer hookups	100 (per space)

Source: SCC 1465 § 2, 2010

Minimum Flow: In no case shall an OWTS be designed for a flow of less than 100 gallons per day.

Maximum Flow**:** In no case shall an OWTS be designed for a flow over 10,000 gallons per day.

Other Approved Methods

If proposed, the projected daily flow may be calculated by actual potable water meter readings, or facility wastewater influent or effluent meter readings if such records are available from the service provider or from water meters certified to be accurate within 2 percent by the water purveyor or, in the case of wastewater metering, the meter read values are certified as "correct" by a registered professional and agreed to by the Department. Average daily flows shall be calculated from peak flow days as follows:

A. If the water meter records are recorded on a daily basis, the highest 10 day flows for a 12 month period may be averaged and used for the design flow.
B. If the water meter records are recorded on a weekly basis, the design flow shall be calculated by dividing the number of days the facility was in use into the highest weekly flow over a t 12 month period and then multiplying by 1.2.
C. If the water meter records are recorded on a monthly basis, the design flow shall be calculated by dividing the number of days the facility was in use into the highest monthly flow over a 12 month period and then multiplying by 1.5.

D. If the water meter records are recorded on a quarterly basis, the design flow shall be calculated by dividing the number of days the facility was in use into the highest quarterly flow over a 12 month period and then multiplying by 2.0.

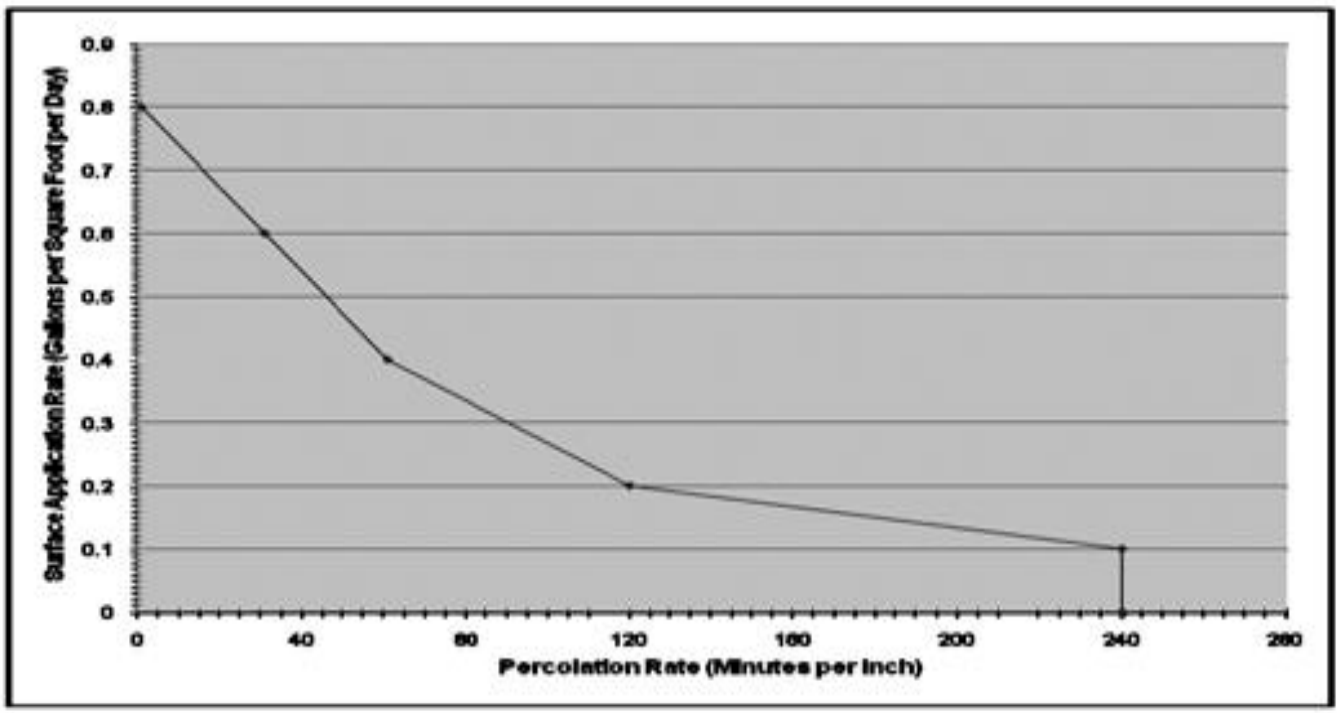
CHAPTER 13 – REQUIRED ABSORPTIVE FIELD AREA (SCC 6.32. 340 D)

Required absorptive field area shall be calculated by using available effective absorptive soil and the applicable soil application rate depicted in Table 2 (below) if effective absorptive soil is determined by soil textural classification, or by referring to Figure 1 of this chapter if percolation testing was conducted.

Table 2
Soil Application Rate Based on USDA Textural Classification

USDA Textural Classification	Soil Group	Application Rate (gdp/ft^2)
Course to medium sand	A	1.2 or less
Fine sand, loamy sand	B	1.1 to 0.8 or less
Sandy loam, loam	C	0.8 to 0.6 or less
Silt loam	D	0.6 to 0.4 or less
Clay loam, sandy or silty clay loam, sandy clay	E	0.4 to 0.1 or less

Figure 1
Soil Application Rate Based on Percolation Rate



Soil application rates derived from percolation test results shall be calculated by using the slowest percolation test result obtained from all percolation soil profile borings in the area in which the disposal field will be located.

Soil application rates derived from soil textural classification, if permitted by the Department, shall be determined by using the most restrictive effective absorptive soil group encountered within five feet from the bottom of a shallow trench or disposal field bed. Soil application rates for deep trench or seepage pit type disposal fields shall be determined by using the most restrictive effective absorptive soil encountered within the trench or pit profile below the point at which effluent leaves the disposal piping.

Only sidewall or bottom area but not both shall be used when calculating the required disposal field area for a shallow trench or bed type disposal field. Only sidewall area shall be used with deep trench or seepage pit type disposal fields.

Installation of a standard OWTS on parcels less than 1 acre in size requires that a reserve disposal field be installed concurrently with the primary field. The disposal fields are to be separated by an approved valve to divert flow from field one to field two at the recommended interval.

Repair to the existing disposal field of an OWTS shall require 100 percent replacement of the required disposal field area. At the Department's discretion, a valve or distribution box shall be installed in the tight line to allow the flow of effluent between each disposal field.

CHAPTER 14 – RESERVE DISPOSAL FIELD AREA (SCC 6.32.340 F)

A reserve disposal field area with suitable site conditions must be set aside for the future installation of a replacement disposal field. The reserve area must be:

A. Equal to 100 percent of the capacity required for the primary disposal field;

B. Separate from the primary disposal field area;

C. Able to meet all current design requirements for the type of disposal field proposed, including soil depth, soil type, slope restrictions, and setbacks, etc.;

D. Fully protected to prevent damage to soil and any adverse impact on the immediate surroundings that may affect the installation of the reserve disposal field or its function.

CHAPTER 15 – SEPTIC TANK (SCC 6.32.340 H)

A. Septic tank capacity shall be a minimum of 1000 gallons and a maximum of 10,000 gallons. Tanks in excess of 3000 gallons shall have design specifications conforming to the most current version of the Uniform Plumbing Code (UPC) submitted to the Department for approval.

B. For residential dwellings, the minimum liquid capacity of any septic tank shall be 1200 gallons for up to a three bedroom residence, 1500 gallons for up to a five bedroom residence, and an additional 200 gallons for each bedroom thereafter.

C. Septic tank capacity for commercial applications shall be determined by doubling the calculated average daily flow.

D. All septic tanks, pump tanks, and distribution boxes shall be watertight and installed level on a stable surface to prevent settling. All tanks may be subject to a water tightness test at the Department's discretion.

E. All septic tanks and pump tanks shall have water tight pumping risers extending to ground surface or above on all compartment access ports of the tank. Risers shall be a minimum of 24 inches in diameter and have gas-tight tamper-proof lids. Tanks and/or risers in potential traffic areas shall be traffic rated and capable of supporting all anticipated loads. The original tank compartment access port lids shall remain in place or Department approved safety grates shall be positioned over access port openings within each riser.

F. Pump tanks shall have a minimum liquid capacity equal to or greater than one day's projected sewage flow.

G. Designs for new OWTS serving commercial establishments capable of generating wastewater containing fats, oils, grease (FOG), grit, or sand shall be required to incorporate an outdoor grease trap and/or sand-oil separator into

the system design. Grease trap or sand-oil separator size and installation requirements shall comply with the UPC.

H. Septic tanks shall have an anti-buoyancy component installed when site conditions are such that the tank may move out of its original position due to flood waters or other high water conditions.

CHAPTER 16 – SETBACK REQUIREMENTS (SCC 6.32.340)

New OWTS shall conform to the setbacks described below. Systems requiring repair shall conform to these setbacks to the greatest extent possible. An inability to maintain required setbacks shall require an alternative OWTS or a design proposed by a registered professional with experience in OWTS design. For OWTS, installed on parcels of record existing at the time of the OWTS Policy that cannot meet the horizontal separation associated with public water supply wells and public water supply surface water intake requirements, the OWTS shall meet the horizontal separation to the greatest extent possible and shall utilize supplemental treatment for pathogens.

			Pre June 2010	Post June 2010	LAMP Requirements
SEPTIC TANK, PUMP TANK, Aerobic Treatment Unit	TO:	**WATER WELL**	**100'**	**100'**	
		LAKE OR RESERVOIR	**50'**	**50'**	
		FLOWING STREAM OR CREEK	**30'**	**50'**	
		PONDS[3]	**----**	**50'**	
		DRAINAGE COURSE OR EPHEMERAL STREAM	**25'**	**50'**	
		CURTAIN DRAINS - VERTICAL CURTAIN DRAINS	**----**	**20'**	
		UP-GRADIENT	**----**	**25'**	
		DOWN-GRADIENT			
		CUT OR FILL BANK (IN EXCESS OF 2.5')	**25'**	**20'**	
		STRUCTURE[1]	**5'**	**5'**	
		EASEMENT	**----**	**CLEAR**	
		PROPERTY LINE	**5'**	**5'**	
		D-BOX	**3'**	**3'**	
		WATER SUPPLY LINES	**10' laterally, 1' above leach line**		
		ON-SITE DOMESTIC WATER SERVICE LINE		**5' (UPC)[2]**	
		PRESSURE PUBLIC WATER MAIN		**10'(UPC)[2]**	
		LEVEE (TOE) – CCR TITLE 23	**10'**	**10'[4]**	
D-BOX	TO:	**PROPERTY LINES**	**10'**	**5'**	
		BUILDINGS[1]	**5'**	**5'**	
		SEPTIC TANK, PUMP TANK OR DISPOSAL FIELD	**3'**	**3'**	
		LEVEE (TOE) – CCR TITLE 23	**10'**	**10'[4]**	

			Pre June 2010	Post June 2010	LAMP Requirements
		DISPOSAL FIELD (PIT, LEACH LINE, TRENCH)	**3', ----, ----**	**3'**	
LEACH PITS	TO:	**WATER WELL (DOMESTIC AND PUBLIC)**	**150'**	**150'**	
		WATER WELL - PUBLIC			**200'***
		PUBLIC WATER SURFACE WATER INTAKE			**1,200' and 400' High water mark****
		LAKE OR RESERVOIR	**200'**	**200'**	
		FLOWING STREAM OR CREEK	**50'**	**100'**	
		PONDS[3]	**----**	**100'**	
		DRAINAGE COURSE OR EPHEMERAL STREAM	**25'**	**50'**	
		CURTAIN DRAINS - VERTICAL CURTAIN DRAINS			
		UP-GRADIENT	**----**	**20'**	
		DOWN-GRADIENT	**----**	**50'**	
		CUT OR FILL BANK (IN EXCESS OF 2.5')	**25'**	**4 x the height of the bank, to a maximum of 50'**	
		STRUCTURE[1]	**10'**	**5'**	
		EASEMENT	**----**	**CLEAR**	
		PROPERTY LINE	**5'**	**5'**	
		D-BOX	**3'**	**3'**	
		SIDEWALLS OF PITS	**16'**	**16'**	
		PIT BOTTOM TO GROUNDWATER	**10'**	**10'**	
		WATER SUPPLY LINES	**10' laterally, 1' above leach line**		
		ON-SITE DOMESTIC WATER SERVICE LINE		**5' (UPC)[2]**	
		PRESSURE PUBLIC WATER MAIN		**10'(UPC)[2]**	
		LEVEE (TOE) – CCR TITLE 23	**10'**	**10'[4]**	
SHALLOW TRENCH	**TO:**	**WATER WELL (DOMESTIC AND PUBLIC)**	**100'**	**100'**	
		WATER WELL-PUBLIC			**150'**
		PUBLIC WATER SURFACE WATER INTAKE			**1,200' and 400' High water mark****
		LAKE OR RESERVOIR	**100'**	**200'**	
		FLOWING STREAM OR CREEK	**30'**	**100'**	

		Pre June 2010	Post June 2010	LAMP Requirements
	PONDS[3]	**----**	**100'**	
	DRAINAGE OR EPHEMERAL STREAM	**25'**	**50'**	
	CURTAIN DRAINS - VERTICAL CURTAIN DRAINS			
	UP-GRADIENT	**----**	**20'**	
	DOWN-GRADIENT	**----**	**50'**	
	CUT OR FILL BANK	**25'**	**4 x the height of the bank, to a maximum of 50'**	
	STRUCTURES[1]	**10'**	**5'**	
	EASEMENTS	**----**	**CLEAR**	
	PROPERTY LINE	**5'**	**5'**	
	D-BOX	**----**	**3'**	
	LEACH LINE ON CENTER	**10'**	**10'**	
	TRENCH BOTTOM TO GROUND WATER	**----**	**5'**	
	WATER SUPPLY LINES	**10' laterally, 1' above leach line**		
	ON-SITE DOMESTIC WATER SERVICE LINE		**5' (UPC)[2]**	
	PRESSURE PUBLIC WATER MAIN		**10' (UPC)[2]**	
	LEVEE (TOE) – CCR TITLE 23	**10'**	**10'[4]**	
DEEP TRENCH TO:	**WATER WELL (DOMESTIC OR PUBLIC)**	**100'**	**150'**	
	WATER WELL - PUBLIC			**200'**
	PUBLIC WATER SURFACE WATER INTAKE			**1,200' and 400' from high water mark****
	LAKE OR RESERVOIR	**200'**	**200'**	
	FLOWING STREAM OR CREEK	**30'**	**100'**	
	PONDS[3]	**----**	**100'**	
	DRAINAGE OR EPHEMERAL STREAM	**25'**	**50'**	
	CURTAIN DRAINS - VERTICAL CURTAIN DRAINS			
	UP-GRADIENT	**---**	**20'**	
	DOWN-GRADIENT	**----**	**50'**	

	Pre June 2010	Post June 2010	LAMP Requirements
CUT OR FILL BANK	**25'**	**4 x the height of the bank, to a maximum of 50'**	
STRUCTURES[1]	**10'**	**5'**	
EASEMENTS	**----**	**CLEAR**	
PROPERTY LINE	**5'**	**5'**	
D-BOX	**----**	**3'**	
TRENCHES ON CENTER	**10'**	**10'**	
TRENCH BOTTOM TO GROUNDWATER			
<15' DEEP	**5'**	**5'**	
>15' DEEP	**10'**	**5'**	
WATER SUPPLY LINES	**10' laterally, 1' above leach line**		
ON-SITE DOMESTIC WATER SERVICE LINE		**5' (UPC)[2]**	
PRESSURE PUBLIC WATER MAIN		**10' (UPC)[2]**	
LEVEE (TOE) – CCR TITLE 23	**10'**	**10'[4]**	

*Setbacks to public water wells less than 600 ft and greater than 20 ft in depth requires a 2-year travel time for microbiological contaminates shall be evaluated.

** If located 1,200 to 2,500 ft the dispersal field can be reduced to 200 ft from the high water mark.

1. Includes foundation lines for any structure including garages, out-buildings, in-ground swimming pools, porches, steps, breezeways, etc. (SCC 6.32, 2010 UPC).
2. Setback is for parallel construction. EMD approval required when crossing lines (1' above may be option).
3. Ponds less than 5000 gallons exempt from setback.
4. Verify setback requirement with applicable reclamation district.

CHAPTER 17 – GENERAL OWTS INSTALLATION REQUIREMENTS

A. Septic tanks must be installed on a level, stable base of either pea-gravel or sand.

B. Septic tanks located in high groundwater areas must incorporate anti-buoyancy measures to prevent flotation.

C. All septic tanks must be installed with watertight risers extending to finished grade. Grading of the surrounding soil shall facilitate drainage away from the riser.

D. Septic tanks must 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 (appears as smearing and compaction).

F. Each disposal field trench will have disposal piping that is centered horizontally in the trench.

G. Disposal field trenches must be installed on contour.

H. Prior to backfilling, the trench drain rock must be covered with either filter fabric untreated building paper or a minimum of 2 inches of compacted straw.

I. Backfill must be carefully placed to prevent damage to the system.

J. Backfill must be native soil free of large stones, masonry, stumps, waste construction materials, or other materials that could damage the system.

K. All distribution boxes must be bedded on a level concrete base.

L. Observation ports, as approved by the Department, shall be installed at the end of each disposal field trench or in each leaching pit.

M. Adequate erosion control measures must be utilized at all times which conforms with applicable County regulations.

N. Slope of Lines

1. Tight line from the house (4 inch diameter pipe) to the tank must maintain a 1/8 to 1/4 inch drop per running foot (1% to 2% slope). 2-45 degree fittings and a cleanout shall be installed when a step-down is necessary. The step-down is to be located as close to the house and as far from the septic tank as possible to avoid unnecessary turbulence in septic tank.

2. Tight line from the septic tank to a distribution box or pump tank must be level with positive flow to the perforated drain laterals.

3. Perforated disposal field laterals shall have a maximum allowable fall of 1 inch per 10 feet. An end cap must be installed on each lateral. Lateral pipe shall be rotated so that perforations are at the 5:00 and 7:00 position.

O. In such cases where a trench excavation could act as a conduit for surface or ground water movement between system components, the trench must be backfilled with sufficiently restrictive material (such as clay) to prevent such flow. Disposal field lines shall be installed on contour.

CHAPTER 18 – STANDARD SYSTEM REQUIREMENTS

A standard system is an OWTS that consists of a septic tank, distribution box, and distribution disposal field which terminates into a shallow trench, deep trench, or seepage pits. Standard systems utilize either gravity to facilitate the movement of effluent from the septic tank, or a pressure-dosed system (without pre-treatment) that pumps the effluent to the distribution disposal field.

A. Site Requirements

1. Soils in the primary and replacement disposal field area must allow a minimum vertical separation of 5 feet between trench bottom and groundwater or a restrictive soil layer. In the case of seepage pits, 10 feet of separation between the seepage pit bottom and groundwater is required.

2. Site conditions cannot be modified in any way that could negatively affect the operation of the system.

3. The site cannot be located on an unstable landform that could adversely affect the operation of the system.

4. The site of the disposal field and disposal field replacement area cannot be covered by asphalt, concrete, or permanent structure unless site constraints allow no other feasible alternative. The Department may allow for the placement of asphalt or concrete over seepage pits or deep trench disposal fields if no alternative is possible.

5. The site of the disposal field and disposal field replacement area must not be subject to activity associated with vehicular traffic, corrals, pens, riding arenas or other consolidation of livestock, or any activity that could adversely affect the soil or integrity of the system. The Department may allow such activities over seepage pits or deep trench disposal fields if no alternative is possible.

6. The slope of the ground in the disposal field and disposal field replacement area shall not exceed 30% for a standard gravity system. In cases where the slope exceeds 30%, the Department may consider a design prepared by a qualified professional.

B. Effluent Distribution

1. Level Sites

   a. Disposal fields requiring two or more laterals require the use of a distribution box to ensure equal distribution.

   b. Risers shall be installed at the end of each lateral to allow for monitoring of each line. Caps shall be placed on the top of each riser.

   c. Distribution boxes shall be leveled with water to ensure the effluent flow is equal to each leach line, trench, or seepage pit. Equalization devices for distribution boxes are recommended.

2. Sloped Sites

   a. Effluent shall be distributed equally among each lateral using a distribution box(es). Disposal field lines shall be installed on contour.

C. Pump Systems

When a lift pump is required to assist gravity disposal to a leach field that is upslope of the structure to be

served, the following additional requirements apply:

1. The pump chamber may be either:
    a. The second compartment of a two compartment septic tank provided:
        i. The septic tank is a minimum of 1,500 gallons;
        ii. The wall separating the two compartments of the tank is equipped with a properly positioned sanitary "T" to prevent the discharge of sludge or scum into the second compartment that is utilized as the pump chamber;
        iii. The wall separating the two tank compartments has the structural integrity to allow the first compartment to remain full while the second compartment is empty; or
    b. A separate pump tank that meets the requirements specified in this Manual.
2. The pump intake must be provided with a screen.
3. The pump tank (or second compartment of the septic tank) must have a capacity sufficient to deliver the design dose, and have a minimum additional storage capacity of one day's capacity above the high level alarm.
4. Each tank (septic, pump) must be installed on a stable level base, generally consisting of three inches of pea gravel or sand.
5. Each pump tank must be provided with a watertight riser extending to ground surface or above, with a minimum inside horizontal measurement equal to or greater than the tank access manhole. Provisions must be made to secure the manhole cover to prevent unauthorized access.
6. Pump tanks in high groundwater areas must be weighted or provided with an anti-buoyancy device to prevent flotation per the manufacturer's recommendations and as required by this Manual.
7. The purpose of a pump and pump basin is to address the issue of plumbing elevation differences for a section of a residence, or to accommodate a remote bathroom or outbuildings. In these cases:
    a. A pump basin with a pump may be utilized when the servicing toilet (residential only) is not the sole toilet utilized by the residence.
    b. A solids handling pump, rather than a grinder pump, must be used and must pump directly into the septic tank and extend 4 inches. The pump basin must be a minimum of 10 feet from the septic tank.

D. Shallow Trench Design Requirements

1. Shallow trenches must be constructed in accordance with the following standards, unless otherwise specified:

    a. Length maximum: 100 feet

    b. Bottom width minimum: 18 inches

    c. Bottom width maximum: 36 inches. Wider excavations may be considered by the Department on a case-by-case basis

    d. Depth: 18-60 inches

2. Minimum distance of undisturbed soil between shallow trenches shall be 10 feet, on center.

3. Shallow trenches must have a minimum of 12 inches of backfill over the installed drain rock.

4. Drain rock shall extend the full width and length of the disposal field trench. There shall be at least 6 inches of drain rock under the distribution pipe and at least 2 inches over the distribution pipe.

5. A soil barrier must be placed on top of the drain rock to exclude fines. The barrier will consist of filter fabric, straw, or untreated building paper.

6. Inspection ports must be installed at the end of each shallow trench as follows:

    a. Each inspection port must extend to the finished grade.

    b. The ground surrounding the inspection port must be graded so that surface water does not accumulate adjacent to the port.

    c. The inspection port must be capped to prevent tampering and vector intrusion.

    d. Inspection ports must have a minimum diameter of 4 inches.

    e. A proposal from the registered professional for fewer inspections ports may be accepted by the Department if the proposed number and placement will allow for the observation of the conditions of each leach line lateral.

E. Capping Fill

A capping fill system is a system utilizing a disposal field where the effective absorptive sidewall area originates at the ground surface. This type of disposal field requires cover (cap) of approved soil to be placed over the disposal field rock to achieve the same level of public health protection as a properly designed shallow disposal field. A capping fill system is effective for areas with shallow groundwater or restrictive soils.

1. Capping fill systems must be constructed in accordance with the following standards:
    a. Length maximum: 100 feet
    b. Bottom width minimum: 18 inches
    c. Bottom width maximum: 36 inches. Wider excavations may be considered by the Department on a case-by-case basis
    d. Depth: 0-36 inches
2. Minimum distance of undisturbed soil between shallow trenches shall be 10 feet, on center.
3. Shallow trenches must have a minimum of 12 inches of backfill over the installed drain rock.
4. Drain rock ¾" to 2 ½" washed cleaned non-reactive gravel shall extend the full width and length of the disposal field trench. There shall be at least 6 inches of drain rock under the distribution pipe and at least 2 inches over the distribution pipe.
5. A soil barrier must be placed on top of the drain rock to exclude fines. The barrier will consist of filter fabric meeting the minimum specifications outlined in this Manual.
6. Inspection ports must be installed at the end of each shallow trench as follows:
    a. Each inspection port must extend to the finished grade.
    b. The ground surrounding the inspection port must be graded so that surface water does not accumulate adjacent to the port.
    c. The inspection port must be capped to prevent vandalism and tampering.
    d. Inspection ports must have a minimum diameter of 4 inches.
    e. A proposal from the designer for fewer inspections ports may be accepted by the Department if the proposed number and placement will allow for the observation of the conditions of each leach line lateral.
7. Capping criteria
    a. The soil used for the cap must be approved by the Department and be equivalent to the native top-soil at the project site or one textural class finer.
    b. All vegetation shall be removed from the disposal field site and the soil scarified parallel to contours no deeper than 6 inches.
    c. The soil cap shall extend a minimum of 5 feet beyond exterior trench boundaries in all directions.

d. The site must be landscaped for erosion control in accordance with those requirements found in the "Mound" section of this Manual.

e. Pressurized capping fill systems must also comply with the requirements for pressure dosed systems as described in this Manual.

F. Deep Trench Design Requirements

Disposal field trenches greater than 36 inches in depth will be subject to the following additional requirements:

1. The designer must determine the depth of any seasonal groundwater
2. The system will be sized based on the texture and/or percolation rate of the most restrictive soil in the bottom of the trench.
3. The minimum disposal field trench spacing within a disposal field shall be 10 feet, on center.

G. Gravelless Disposal Field Design Requirements (Exclusive of Subsurface Drip Dispersal Systems)

1. General Requirements

a. The use of a gravelless disposal field will not provide for a reduction in the minimum surface area requirements established in the Sacramento County On-Site Wastewater Management Ordinance.

b. The use of gravelless disposal fields will not reduce the wastewater system sizing or the requirement for an additional 100% of the disposal field area reserved for system repair.

c. Wastewater from residential sources must receive pretreatment at least equal to that provided in a conventional two-compartment septic tank, before discharge to a gravelless disposal field.

d. Disposal fields using gravelless distribution products must be installed according to the manufacturer's instructions, in a manner that is consistent with these guidelines and with state and local regulations.

H. Seepage Pit Requirements

A seepage pit is a drilled, rock-filled excavation installed to allow disposal of effluent from a septic tank or other OWTS. When an OWTS with a seepage pit component is proposed, the following requirements apply:

1. New OWTS incorporating seepage pits cannot be installed:

a. If a parcel can support a standard gravity-flow leach line system; or

b. When the site meets the requirements for other shallow standard system types described in this Manual.

2. Seepage pits must be a minimum of 36 inches in diameter.
3. The seepage pit must be filled with 1½"- 4" drain rock, up to the concrete collar, or with other drain rock approved by the Department. The drain rock must be washed clean so as to be free of debris and dirt.
4. The concrete collar must be a minimum of 4 inches thick.
5. A system with multiple pits must be designed so that effluent is equally distributed to each pit within the system. Equal distribution shall be achieved with the use of single or multiple distribution boxes.
6. Seepage pit header pipe inlets, risers, and collars must be watertight.
7. The minimum spacing between seepage pits shall be 16 feet of undisturbed soil, sidewall to sidewall.
8. Proposals for seepage pits that are utilized for new construction shall include the following:
    a. At least one exploratory boring must be advanced to groundwater or ten (10) feet below the proposed design depth of the pits, whichever comes first. The boring must be advanced in the lowest area of the proposed disposal area in order to evaluate soils. Additional borings may be required at the discretion of the Department to determine the suitability of the site for seepage pit disposal fields.
    b. At the discretion of the Department, seasonal groundwater monitoring data may be required to assure a vertical separation of 10 feet between pit bottom and groundwater on a year-round basis.
    c. Unless otherwise approved by the Department, the depth of a seepage pit must be a minimum of 20 feet and a maximum of 40 feet deep.
    d. When evaluating the effective pit sidewall area, soil types A-D, with or without gravel, may be considered capable of supporting effective wastewater disposal.
    g. An acceptable test boring will have a cumulative minimum 10 foot column of effective soil (soil types A-D)
    h. The seepage pit design shall be a minimum of 1 pit per bedroom and no more than 2-pit per bedroom. In no instance shall there be less than two pits installed for any system.
    i. The seepage pit system must be designed by a registered professional.
9. Requirements when seepage pits are utilized for a system repair
    a. On a case-by-case basis, the Department may allow for exceptions to the requirements specified in this Manual in order to facilitate a timely repair.

CHAPTER 19 – PRESSURIZED DISTRIBUTION SYSTEM REQUIREMENTS

A. Pipe, Valves, and Fittings

1. All pressurized disposal pipes and fittings, including transport lines, manifolds, laterals and fittings, must be adequately sized for the design flow.
2. Pressurized transport piping must be uniformly supported along the trench bottom (shaded), and at the discretion of the Department must be bedded in sand or other approved material.
3. The ends of lateral piping shall have 90 degree long sweeps with threaded caps housed in valve boxes that accommodate threaded plugs or caps.
4. All joints in pressurized disposal manifolds, lateral piping, transport piping, and fittings must be solvent welded using the appropriate solvent for the pipe material;
5. A gate valve or ball valve must be placed on the pressurized transport pipe inside or outside of the pump riser, in or near the dosing tank.
6. A check valve must be placed between the pump and the gate valve. A check valve is not required if the pump has an internal check valve. All check valves and gate valves must be in a protected and accessible location for maintenance and repair.
7. An anti-siphon valve must be placed between the pump and leach field when the leach field is down slope of the pump.
8. All valves must be placed in protective boxes accessible for maintenance from the surface.

B. Dosing Tanks

1. The capacity of the tank must be sufficient to deliver the design dose, including additional storage capacity of one day's design flow above the high level alarm. The liquid capacity must be measured from the invert elevation of the inlet fitting to the bottom of the tank.
2. Duplex alternating pumps may be required by the Department for specific installations (e.g. large systems approved for commercial facilities)
3. The dose volume must be calculated to effectively achieve equal distribution throughout the system. Dose volume must be sufficient to disperse the dose.

C. Dispersal Trenches

1. The top of the drain rock must be covered with filter fabric straw, or untreated building paper.
2. A minimum of 12 inches of backfill is required over the filter material within the disposal field trench.

D. Hydraulic Design

1. Orifices shall have a minimum diameter of 1/8 inch (or per manufacturer's specs) and be evenly spaced at a distance between 2 and 6 feet. Orifices other than 1/8 inch shall be evaluated by the Department on a case-by-case basis due to design constraints related to dose volume, effluent quality, and dispersal field size.

2. There must be a minimum of 2 psi at the orifice farthest from the manifold and no more than a 10% head variation within a disposal field trench.

3. The effect of back drainage of the pressurized disposal system must be evaluated for its impact on the dosing tank and system operation.

E. Installation

1. Pressurized disposal lateral orifices must be covered with shields to prevent soil washout.

2. Lateral piping must be installed in the center of the trench and be level to within 2 inches per 100 feet.

3. Inspection ports must be placed at the end of each pressurized disposal lateral within the disposal field trench as described in Chapter 27 of this Manual.

4. Each dosing tank must be installed on a stable, level base.

5. Each dosing tank shall be provided with risers to grade as described in this Manual.

6. Dosing tanks located in high groundwater areas must be weighted or provided with an anti-buoyancy device to prevent flotation as per the manufacturer's recommendation, and as required in of this Manual.

F. Sloping Sites

1. Ball or gate valves or flow restrictors must be installed on each pressurized disposal lateral to facilitate regulation of flow within each lateral.

2. The Department will inspect the pressurized disposal system for verification of hydraulic head over the pressurized disposal laterals ("squirt test").

    a. Water and a source of electricity must be available for this inspection.

    b. Photographic documentation of the pressure test may be accepted by the Department on a case-by-case basis.

    c. Where site conditions preclude the entire disposal field being left open for the pressure test, the Department may allow a portion of the trenches to be covered prior to the test and observe the pressurized flow at the distal end of each lateral.

CHAPTER 20 – SUBSURFACE DRIP DISPERSAL REQUIREMENTS

Subsurface Drip Dispersal is a method of dispersing wastewater uniformly over a large area by using numerous emitters installed at a shallow depth and very small doses.

A. Supplemental treatment is required prior to dispersal utilizing subsurface drip irrigation.

B. Minimum depth of drip line must be 6 inches.

C. Subsurface drip dispersal systems must be designed, installed and managed to provide even distribution and un-saturated subsurface flow.

D. All subsurface drip dispersal system materials must be warranted for use with wastewater by the manufacturer and be resistant to clogging from materials such as solids, bacterial slime (biomat) and roots.

E. Fittings for drip line connections to the distribution and flush manifolds must be used per the manufacturer's recommendations.

G. The subsurface drip dispersal system must be designed in a configuration that prevents effluent from flowing to the lowest area of the field when the pump shuts off or when the system flow depressurizes.

H. A minimum velocity of 2 feet per second (or per manufacturer's specs) for field flushing of the laterals is required.

I. All subsurface drip dispersal systems must be designed with a dosing controller to be used for automatic field flushing, zone alternating, dose frequency, dose volume and back-flushing of the filters.

J. Filter flushing may be either automatic or manual.

K. All subsurface drip dispersal systems must be designed with a bypass line to facilitate field flushing.

L. All subsurface drip dispersal systems must be designed with filters to remove particles of 100 microns or larger.

M. All subsurface drip dispersal systems must be designed with air relief valves placed at the highest point on both supply and return manifolds.

O. Sizing criteria must be based on the manufacturer's recommended hydraulic loading rates.

P. All subsurface drip dispersal systems must be installed by licensed installers, specifically trained in the installation of subsurface drip dispersal systems. Proof of the required training may be provided in the form of a certification or letter from a qualified trainer.

Q. Installation of the subsurface drip dispersal system must be completed per the manufacturer's specifications.

CHAPTER 21 – SUPPLEMENTAL TREATMENT SYSTEM REQUIREMENTS

Supplemental treatment systems are advanced on-site wastewater treatment systems that provide a specified level of wastewater treatment prior to release of effluent to the disposal field. Supplemental treatment may be required in areas where there is concern for surface and groundwater quality, a need for increased protection to public health, or other conditions where a cleaner effluent is required prior to release to the disposal field.

A. Supplemental Treatment Components

1. Supplemental treatment components must be designed to meet the Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) concentrations indicated below. Where nitrogen is identified in the RWQCB basin plan as a water quality concern, the following nitrogen effluent concentration must be achieved:

    a. 30-day average BOD concentration will not exceed 30 milligrams per liter (mg/L), or alternately, a carbonaceous BOD (CBOD) in excess of 25 mg/L

    b. 30-day average TSS concentration will not exceed 30 mg/L

    c. 30-day average Total Nitrogen (TN) concentration will not exceed 10 mg/L as nitrogen

    d. Total Coliform, if required by an applicable Operation and Management Plan (O&M Plan), must be less than 10,000 Most Probable Number (MPN) per 100 milliliters.

2. Testing to comply with these performance standards must be conducted based on effluent analyses with the following minimum detection limits:

Parameter	Detection Limit
BOD	2 mg/L
TSS	5 mg/L
Total Nitrogen	1 mg/L

B. Disinfection Components

1. Add-on components performing disinfection must be designed to achieve a total coliform bacteria effluent concentration at the 95th percentile, not to exceed the following:

    a. 10 MPN per 100 ml prior to discharge into the dispersal field, where the soils exhibit percolation rates of 1-10 minutes per inch or where the soil texture is sand, or

    b. 1,000 MPN per 100 ml prior to discharge into the dispersal field where the soils exhibit percolation rates greater than 10 minutes per inch or consist of a soil texture more restrictive than sand.

2. Effluent from supplemental treatment must be tested quarterly using an analytical method capable of achieving a minimum detection limit of 2.2 MPN total coliform. Such systems must be maintained to comply with the applicable performance requirements during operation/lifetime of the system.

C. Where feasible, as determined by the Department, supplemental treatment components must be equipped with a telemetric alarm that notifies the owner and O&M Specialist in the event of system malfunction.

D. All supplemental treatment systems must disperse effluent under pressure, except where seepage pits are utilized following the specifications of Chapter 18.

E. All supplemental treatment systems must be designed by a registered professional and installed by licensed installers with specific training in the installation of the type of system utilized. Proof of the specified training by way of certification or a letter from an approved trainer is required.

F. All supplemental treatment systems must maintain a current Operating Permit and be periodically inspected and monitored by a certified O&M Specialist, as required in the OWTS Ordinance and Part 3 of this Manual.

G. Supplemental treatment systems in lieu of standard systems

H. When a disposal field site is utilized that meets the criteria described above, nothing will preclude the applicant from opting to use a supplemental treatment system in lieu of a standard system.

I. When siting an OWTS, the disposal field must be located, whenever possible, on that portion of the parcel with a minimum vertical separation of 36 inches to groundwater, underlain by soil groups B, C, or D, and having a percolation rate of 1-60 minutes per inch.

CHAPTER 22 – SINGLE-PASS SAND FILTER REQUIREMENTS

A. Influent Wastewater Strength

1. Single-pass sand filters are designed for treating residential strength wastewater. The wastewater applied to the single-pass sand filter must not be higher in strength than 220 mg/l BOD5 or 145 mg/l TSS). Lesser wastewater strengths, without increased flow rates, are preferable for assuring long term operation of a single-pass sand filter system. High-strength wastewater shall require pre-treatment in order to reduce its strength prior to introduction into a single-pass sand filter and the soil dispersal component.

B. Daily Wastewater Flow-Design Estimates

The minimum wastewater design flow shall be as specified in Chapter 12 of this Manual.

C. Locational Requirements

1. The minimum setback requirements for closed-bottom single-pass sand filters will be the same as those for septic tanks.

2. The minimum setback requirements for open-bottom single-pass sand filters will be the same as those for a standard gravity drain-field or leach bed.

D. Design Standards

1. Media Specifications

   Filter media must meet the specifications outlined in Chapter 27 of this Manual.

2. Filter Bed Sizing

   Loading Rate - The loading rate to the sand filter must not exceed 1.0 gallon/day/square foot, using a maximum daily wastewater flow design estimate.

3. Depth of Media

   The media depth must be a minimum of 24 inches.

4. Filter Bed Containment

   The filter bed is contained either in a flexible membrane-lined excavation as specified in Chapter 27 of this Manual, or in another containment vessel approved by the Department.

5. Wastewater Distribution

   a. Pressure distribution - Pressurized disposal is required within the sand filter for dispersal of sand filter treated effluent, and must comply with the requirements for pressurized disposal as specified in Chapter 20 of this Manual.

   b. Wastewater Application to the Filter Bed -The wastewater must be applied to the layer of drain rock atop the filter media as specified in Chapter 19 or sprayed upward against the top of gravelless chambers.

6. Minimum Dosing Frequency

   Timed dosing system is required. The dosing frequency or dose volume is dependent on the media specification used with the sand filter.

F. Installation

1. Containment must be structurally sound and have sufficient geometric and dimensional integrity to protect the liner.

2. To prevent differential settling when the sand filter is put into service, the density of the filter media must be uniform throughout.

3. A geotextile filter fabric must be placed on top of the gravel bed.

4. The cover must consist of no greater than one foot of soil. The cover soil must be capable of:

    a. Maintaining vegetative growth while not impeding the passage of air (sandy loam or coarser);

    b. Be contoured and landscaped in order to shed water, control erosion and to prevent surface drainage onto the sand filter;

    c. Plant cover must be shallow root vegetation as generally described in the system design and operation and maintenance manual.

5. Observation and monitoring ports: 2-observation/ monitoring ports must be installed in the sand filter. One observation/monitoring port must be installed at the interface between the bottom of the drain rock and the top of the media. A second observation/monitoring port must be installed to the bottom of the underdrain. The pump chamber may be used as the second observation port.

6. Liner patches, repairs and seams shall have the same physical properties as the parent material.

7. Site considerations and preparation

    The supporting surface slopes and foundation to accept the liner shall be stable and structurally sound, including suitable compaction (per design specs).

8. Addition of soil stabilizers such as cementitious or chemical binding agents shall not adversely affect the membrane.

9. Construction and installation

    a. Sand filters shall be installed per the registered professional's design specifications. At a minimum, the bottom of the excavation shall be graded, to provide a sloping liner surface, from the outer edge of the filter toward the point of underdrain collection. The slope must be equal to 8 inches fall overall or one inch of fall per foot of run, whichever is the greatest.

    b. The sides of the excavation shall be smooth and free of possible puncture points.

    c. Watertight boots shall be bedded in sand and installed in accordance with manufacturer's specifications.

    d. Liner placement

        i. Liners shall be installed in accordance with manufacturer's specifications, which may include:
            (1) Temperature or precipitation
            (2) Sand bedding
            (3) Sealant type and procedure for use
            (4) Liner size

(5) Transport, handling, and storage
(6) Deployment of panels
(7) Anchoring of liner edges
(8) Field seaming when necessary
(9) Field repairs

ii. Site inspection

A site inspection shall be carried out by the registered professional and the licensed installer prior to liner installation to verify surface conditions and adherence to manufacturer's and designer's specifications.

iii. Final inspection and acceptance

Completed liner installations shall be visually checked for punctures, rips, tears and seam abnormalities before placement of any backfill. At this time the licensed installer shall also manually check all factory and field seams with an appropriate tool. Other tests as recommended by the manufacturer may be used in lieu of, or in addition to, manual checking of seams by the licensed installer.

CHAPTER 23 – MOUND SYSTEM REQUIREMENTS

A. Influent Wastewater Strength

Mound systems are designed for treating residential strength wastewater. The wastewater applied to the mound system shall not exceed 220 mg/l BOD5 or 145 mg/l TSS). Lesser wastewater strengths, without increased flow rates, assure long term operation of a mound system.

B. Daily Wastewater Flow -Design Estimates

The minimum wastewater design flow shall be as specified in Chapter 12 of this Manual.

C. Setback Requirements

The minimum setback requirements from the toe of the mound system will be the same as those for a standard gravity disposal field or leach bed.

D. Design Standards

1. Minimum Effective Soil Depth

Mound systems must be located on a minimum of 18 inches of undisturbed, unsaturated, native soil.

2. Media Specifications

a. Filter media must meet the specifications outlined in Chapter 27 of this Manual.

b. To prevent differential settling when the mound is put into service, the density of the filter media must be uniform throughout.

3. Application Rates

a. The application rate for the mound infiltration area (gravel bed) must not exceed 1.0 gpd/ft^2 (source USEPA Onsite Wastewater Treatment Systems Manual, Table 4-3)

b. The application rate for basal area shall be based on soil type.

4. Minimum Dosing Frequency

A timed dosing system is required. The registered professional shall determine the dosing frequency or dose volume based on the filter media specifications.

E. Installation

1. Unless otherwise specified in this Manual, mound systems shall be installed following the procedures and specifications delineated in the *Mound System Manual*, in its current final draft form or as hereafter adopted and updated by the State Water Resources Control Board (SWRCB). Copies of the *Mound System Manual* will maintained and provided by the Department.

2. Cap and Topsoil Depth

a. The cover soil must be capable of:

i. Maintaining vegetative growth while not impeding the passage of air (sandy loam or coarser);

ii. Be contoured and landscaped in order to shed water, control erosion and to prevent surface drainage onto the sand filter.

b. The final settled depth of the cap and topsoil shall be no less than 12 inches above the center and 6 inches above the outer edge of the bed. Additional depth of topsoil may be needed during final construction activities to assure that the minimum depths are achieved following natural settling of the soil.

c. Erosion control measures must be implemented to maintain the integrity of the mound.

F. Mound Placement on Slopes

1. On sloping sites, the mound must be aligned with its longest dimension parallel along the site contours to facilitate equal distribution throughout the mound and prevent excessive saturation of effluent in a small section of the mound.

2. The mound must not be designed or constructed so that it is perpendicular with the contours.

3. The infiltration bed must be as long and narrow as possible to ensure all effluent percolates into the native soil before it reaches the toe of the filter media.

4. If the site does not permit the design of a "long and narrow" mound along the contours of the site, other OWTS and dispersal technology must be selected. Mound systems are only suitable for sites where all of the design and siting criteria can be satisfactorily met.

G. Effluent Dispersal within Mound

A method for providing uniform distribution with timed dosing throughout the bed in the filter media is required, either through use of pressure distribution as specified in Chapter 19 of this Manual, or through use of subsurface drip dispersion, as specified in Chapter 20 of this Manual.

H. Monitoring and Observation Ports

Each mound shall have a minimum of two monitoring and observation ports, one placed in the infiltration bed down to the gravel/sand, and one down-slope from the bed down to the sand/native soil interface. Unless otherwise specified in this Manual, down-gradient observation and monitoring ports shall be installed as specified in the *Mound System Manual* (SWRCB) in its current final draft, or as adopted and updated by the SWRCB.

I. Protection of Mound System Placement Area

The registered professional will be responsible for the adequacy of, and the installer's substantial compliance with, the approved construction plan. The construction plan must include best management practices for protecting the area where the mound is to be located:

CHAPTER 24– USE OF ENGINEERED FILL

A. Pre-Treatment

Wastewater discharged into engineered fill will have supplemental treatment (Chapter 24) meeting the effluent specifications described below.

B. Site/Fill Evaluation

1. The primary and replacement disposal field area will be analyzed by a registered professional to assure that breakout of wastewater will not occur outside the boundaries of the disposal area.

2. Site preparation and placement of fill must be under the direct supervision of a California professional civil engineer (P.E.).

3. The engineered fill area shall be evaluated for the presence of winter groundwater when site conditions or previous groundwater monitoring results indicate the seasonal groundwater level may be less than two feet below original grade.

C. Native Receiving Soil

1. Native soil depth shall be a minimum of 18 inches (after removal of the organic top soil layer) in all areas of the proposed disposal field and repair area.

2. If the limiting layer consists of material coarser than sand or fractured material, the registered professional shall demonstrate that saturated soil conditions will not form at the soil/limiting layer interface due to capillary forces.

D. Fill Material

1. Fill shall compensate for the lack of in-place soil at a 1.5 to 1 (1.5:1) ratio so that a one foot deficiency in soil column depth shall require 1 ½ feet of fill. A minimum of 12 inches of compensating fill shall be required.

2. Fill will be engineered to the specifications of loamy sand with no more than 15% fines (clay and silt). At least 75% of fill material shall pass a 2 mm sieve. Any sieve analyses falling outside of a loamy sand specification (USDA Soil Classification) shall be cause for rejection of such fill material. A minimum of two sieve analyses shall be conducted prior to placement to test for oversize material.

3. Engineered fill shall be evaluated after stabilization by the Department and supervising registered professional for adequate permeability and percolation. At least 3 percolation tests shall be performed in the consolidated fill material after placement. Post- stabilization fill must have a percolation rate between 5 and 60 minutes per inch (mpi).

4. All organic material and material over 1" in diameter shall be removed from fill.

E. Dispersal

1. Supplemental treatment shall be dispersed by drip disposal at a maximum application rate of 0.2 gallons/square foot-day.

2. The drip line layout design shall be reviewed by a registered professional.

3. The emitters will be placed at the top of the compensating fill layer with an additional 12 inches of cover material over the emitters.

4. The use of engineered fill for standard gravity flow systems may be approved by the Department on a case-by-case basis.

F. Construction

1. The slope of the area to receive engineered fill shall not be greater than 20% unless a slope stability analysis conducted by a PE is performed.

2. Fill shall be as dry as possible during placement to prevent excessive compaction.

3. An initial fill lift of 6 inches shall be blended into the scarified native soil. Subsequent lifts of fill shall be no greater than 6 inches. The top 2 to 3 inches of each subsequent lift shall be scarified prior to addition of each subsequent lift.

4. After placement, soil shall be consolidated by a means chosen by the PE. Examples include, but are not limited to:

5. Light compaction by tracked equipment,

6. Allowing the soil to consolidate naturally over a rainy season or,

7. Watering with at least enough water to saturate the estimated pore volume of the fill.

8. Side slopes shall be a 3 to 1, (3:1) slope. A registered professional may propose shallower slopes for less permeable soils. The side slopes shall begin 48 inches from any dispersal line.

9. After the fill is placed and approved, the fill shall be crowned with a loam or sandy loam soil type to create a final cap. The fill cap shall be seeded with shallow rooted grass. Seeded areas shall be watered as necessary to establish and maintain vegetation.

10. The toes of the fill material shall remain accessible and visible with no vegetation taller than 2 inches in height.

11. Each system shall be provided with an acceptable method for evaluating system function, as approved by the Department.

CHAPTER 25 – PROPRIETARY SUPPLEMENTAL TREATMENT SYSTEM REQUIREMENTS

A proprietary supplemental treatment provides treatment of wastewater by exposing the effluent to a contact medium under aerobic conditions in a self-contained enclosure.

A. Proprietary supplemental treatment systems must be designed to meet the level of treatment specified in Chapter 21 of this Manual. Disinfection may be required if the proprietary system does not meet the specified treatment level.

B. Before the installation of any proprietary supplemental treatment OWTS, all proposed treatment components must be listed with the National Sanitation Foundation (NSF) or IAPMO approved, unless otherwise approved by the Department.

C. Installation of a proprietary supplemental treatment system must be performed by a registered professional, certified by the proprietor and accepted by the Department.

CHAPTER 26 – NON-STANDARD, NON-SUPPLEMENTAL TREATMENT SYSTEM REQUIREMENTS

Non-standard, non-supplemental treatment systems are OWTS designed to address specific site and/or wastewater generation conditions. Examples include but are not limited to steep-slope systems, commercial systems, holding tanks, seepage pits, vault privies, and portable toilets. Non-standard, non-supplemental systems are acceptable for use on existing lots only; such systems are not suitable for use in the creation of new lots.

A. Steep Slope Systems

When the site's ground slope in the disposal field area exceeds 30%, the following additional requirements and restrictions will apply:

1. A registered professional shall design the system.
2. Steep slope systems are not permitted for the creation of new parcels.
3. 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 other applicable county requirements.
4. For purposes of determining effective soil depth and vertical separation, the depth of limiting layer beneath the bottom of the trench must be measured from the upslope side of the disposal field trench bottom
5. The maximum trench width shall not exceed 24 inches.
6. The registered professional shall provide verification of slope stability prepared and stamped with a wet seal by a civil engineer.
7. The OWTS must utilize pressurized or subsurface drip dispersal only.

B. Non-Residential Systems

1. A registered professional shall design the system.
2. High strength waste is prohibited.
3. For projected daily sewage flows up to 1,500 gallons, the septic tank shall have a liquid capacity equal to at least one and a half days sewage flow.

CHAPTER 27 – MATERIALS

A. Main Building Sewer and Tight Lines

All main building sewer and tight lines must be plumbed with materials in conformance with building sewer standards as identified in the most recent version of the UPC adopted by the County of Sacramento. All main

building sewer and tight lines must have a minimum diameter of 4" (3"is acceptable for modular homes or other structures that are plumbed with 3" lines during the manufacturing process).

B. Septic Tanks

1. General criteria

   a. Septic tanks shall be precast reinforced concrete or other material approved by the Department. Wood and metal tanks are prohibited. Cast-in-place concrete, fiberglass and polyethylene tanks may be considered if they are NSF listed or International Association of Plumbing and Mechanical Officials (IAPMO) approved. Tanks must have two compartments, divided into sections of 2/3:1/3, oriented with the largest compartment upstream of the distribution box or manifold.

   b. The manufacturer's name and tank capacity (gallons) must be permanently displayed on the uppermost portion of the tank so as to be easily readable. If the tank is constructed of fiberglass or polyethylene, the model number must also be displayed in a conspicuous location.

   c. Septic tanks shall be protected against flotation in areas subject to flooding or with high ground water conditions.

   d. Septic tanks shall be constructed and installed so as to be watertight.

2. Structural Integrity

   a. All tanks and treatment units, regardless of material or method of construction shall be designed and constructed to withstand anticipated earth loads according to manufacturer's specifications and warranties :

   b. Precast concrete tanks must have a minimum wall, compartment and bottom thickness of 3 inches, and must be reinforced. The top must be at least 4 inches thick.

   c. All tank construction joints shall be watertight and bonded together in a structurally sufficient manner so as to prevent separation at the bonded seam.

3. Risers

   a. Each tank compartment must be provided with an approved watertight riser extending to finished grade or above. Exceptions may be granted by the Department for tanks less than 12 inches below ground surface.

   b. All joints must be properly sealed with a sealant and/or an interlocking mechanism, as approved by the Department, to render the riser watertight to prevent infiltration of surface water into the tank. Sealing with cement grout alone is not an approved method of sealing joints.

   c. Surface water must be diverted away from the riser cover by creating a sloping surface away from the riser or by extending the riser a minimum of 2 inches above finished grade and grading

the soil around the riser so that it slopes away from the riser in all directions.

d. The cover must be securely fastened with stainless steel or other corrosion resistant fasteners to ensure the riser is tamper resistant. No cover may exceed 75 pounds.

e. Risers must have a minimum inside horizontal diameter equal to or greater than the access manhole.

f. A grate capable of preventing unintentional entry into the tank is required to cover the access manhole below inside any riser if the original concrete tank lids are to be permanently removed.

4. Tank Fittings

a. The inlet and outlet fittings must be constructed of Schedule 40 PVC, Schedule 40 ABS, or other materials approved by the Department, with a minimum diameter of 3 inches.

b. All fittings must be secured with a sealant approved by the Department and must be constructed to be watertight. Tank fitting locations must be properly engineered to ensure the structural integrity of the tank.

c. The inlet fitting must be a sanitary “T” with minimum pipe diameter not less than the connecting building sewer or less than 3 inches. It must extend at least 4 inches above and 12 inches below the liquid level.

d. The outlet fitting must be a sanitary ”T" with minimum pipe diameter no less than 4 inches to accommodate an effluent filter. The outlet fitting must extend at least 4 inches above the liquid level and at least 12 inches below the liquid level and extend into the tank approximately equal to the flow level through the baffle.

e. Unless otherwise specified by a registered professional, an effluent filter shall be installed prior to discharge of the effluent to the disposal field. It must be commercially designed and manufactured, intended for effluent filtration, and be readily accessible for inspection and cleaning.

f. The invert of the inlet fitting must not be less than two (2) inches above the invert of `the outlet fitting.

g. Sanitary “T”s must be accessible and directly below the manhole access riser.

h. Baffles must be equipped with a minimum 3 inches or greater diameter "T" fitting or baffle slot. The “T” fitting shall be located in the shared compartment wall, using the same material specifications as required for the outlet fitting. The invert of the "T" fitting or baffle slot must be located approximately fifty (50) percent into the liquid in the first compartment of the tank. A vent opening in the baffle wall above the liquid level shall be equivalent in size to the diameter of the main building sewer line. The baffle must be constructed of the same material as the tank and extend a minimum of 4” above the liquid level.

C. Distribution Box

1. Distribution boxes must be constructed of concrete or other materials as approved by the Department.
2. Distribution boxes must be designed to accommodate all effluent lines. The top, walls, and bottom of concrete distribution boxes must be at least 1-1/2 inches thick.
3. Distribution boxes must be designed to be water tight.
4. Distribution boxes must be installed to provide equal distribution of effluent to the disposal field trenches or pits.
5. Each distribution box must be provided with a sump extending at least 1 inch below the invert of the outlets.
6. The size of each distribution box shall be a minimum of 12” x 12” with at least 3 inch of liquid depth. The flow line of the influent pipe shall be at least 1 inch above the flow line of the effluent pipe(s).
7. Proposals for the use of new or revised distribution box designs will be reviewed by the Department on a case-by-case basis. All proposals shall include written documentation verifying that the box design, materials and construction are NSF listed, IAPMO approved, and/or comply with requirements of the most recently adopted version of the Uniform Plumbing Code.
8. All distribution boxes must be installed level on Department approved bedding material. Approved plastic distribution boxes shall be bedded in concrete.

D. Diversion Valve

1. Diversion valves must be constructed of durable material and be of a design approved by the Department. They must be corrosion-resistant, watertight, and designed to accommodate the inlet and outlet pipes.
2. Each diversion valve must have a positive stop.
3. Proposals for the use of new or revised diversion valve designs will be reviewed by the Department on a case-by-case basis. All proposals shall include \written documentation verifying that the valve design, materials and construction are NSF listed, IAMPO approved, and/or comply with requirements of the most recently adopted version of the Uniform Plumbing Code.
4. Diversion valves are to be switched as specified in the system owner’s O&M Manual.

E. Dosing and Pump Tanks

1. Each dosing tank employing 1 or more pumps must have a liquid capacity sufficient to deliver the design dose and have a minimum additional capacity of one day’s design flow above the high level alarm. Should maximum daily flow be greater than average daily flow, the Department may base the tank size on maximum volume of wastewater capable of being generated on any given day.

2. Each dosing tank must be marked with the liquid capacity in gallons and the manufacturer's business name on the uppermost section on the outside of the tank.

3. Proposals for the use of new or revised dosing tanks designs will be reviewed by the Department on a case-by-case basis. All proposals shall include written documentation verifying that the tank design, materials and construction are NSF listed, IAPMO approved, and/or comply with requirements of the most recently adopted version of the Uniform Plumbing Code. The manufacturer shall submit a proposal with specifications for each tank design prepared by a civil engineer. Subsequent revisions to each design shall be resubmitted for review. The appropriate plan review fee must accompany submitted proposals.

4. Any lift station transporting effluent or solids to a septic tank must extend into the septic tank with a minimum 3-inch diameter sanitary "T." Effluent lines under pressure that are plumbed to a septic tank shall be connected to a larger diameter pipe at least 10 feet upstream of the septic tank to prevent wastewater turbulence. The larger diameter pipe shall be at least 1 inch greater in diameter than the pressurized line.

F. Pumps, Controls, and Alarms

Electrical components used in OWTS must comply with the Uniform Electrical Code and the following:

1. Motors must be continuous-duty, with overload protection.

2. Pumps must have durable, sewage rated impellers.

3. Submersible pumps must be provided with a corrosion resistant lifting device and be easily accessible to service the pump.

4. Pumps must be automatically controlled with mechanical or electrical switches designed for use with pump and control panels.

5. Pumps must have an automatically resetting audible and visual high water level alarm with a manual silencing switch located in or near the building serviced by the pump. The alarm must be configured so that only the audible alarm may be silenced by the resident. The electrical box for the pump and alarm system must be protected from the elements.

6. All electrical wiring must be installed according to the manufacturer's requirements. If required, all electrical wiring must be performed under permit from the local regulatory agency.

7. The pump and alarm must be connected to separate circuits.

8. To ensure the system is not exceeding the design flow rate, total daily flow shall be determined by use of a flowmeter, non-resettable digital pump cycle counter, or other mechanism as accepted by the Department.

10. A manual override switch shall be installed in the electrical box to facilitate dosing control during inspections.

G. Pipe

1. All pipe installed throughout the wastewater treatment system must be clearly labeled and oriented in the trench so that the labeling can be readily identified by Department staff. Shading or pipe bedding must not obscure the label on the pipe. The pipe identification must cover at least 50% of the length of the pipe.

2. Main line tight lines shall be installed using schedule 40 or ABS.

3. Schedule 40, ABS or SDR 35 (ASTM D 3034) shall be used for the following applications:

    a. Septic tank to the distribution box (if applicable).

    b. Septic tank to the pump chamber (if applicable).

    c. Distribution box outlet to disposal field.

4. Gravity Distribution (leach line) Dispersal

    a. One of the following grades of 4-inch perforated pipe must be used:

        i. SDR 35 (ASTM D 3034)

        ii. ASTM F810

    b. Alternatives to piping, such as gravelless chambers, may be used as approved by the Department. All gravelless chambers must have a sufficient number of orifices to provide uniform distribution of effluent throughout the disposal field.

5. Pressurized transport pipe, disposal manifolds, and disposal laterals (piping and fittings), must meet the most current requirements for schedule 40 or greater PVC pressurized pipe as, identified in ASTM Specifications D-1785, or other material approved by the designing registered professional. All pressurized disposal laterals, transport and manifold piping must be adequately sized for the design flow.

6. Curtain drain pipe must meet the requirements specified in this Manual for gravity disposal field pipe.

7. Other types of pipe may be approved by the Department, provided it can be demonstrated that the selected pipe has the structural integrity for the proposed application.

H. Drain Rock

1. Drain rock shall be 1 ½ inches to 4 inches in diameter. Uniformly graded material is recommended to maximize pore space. Drain rock must be clean, washed and non-deteriorating. Alternatives to drain rock, as described in this Manual may be accepted by the Department on a case-by-case basis.

2. Gravelless systems are allowed provided they are NSF listed or, IAPMO approved. Credits to decrease leaching area will not be granted.

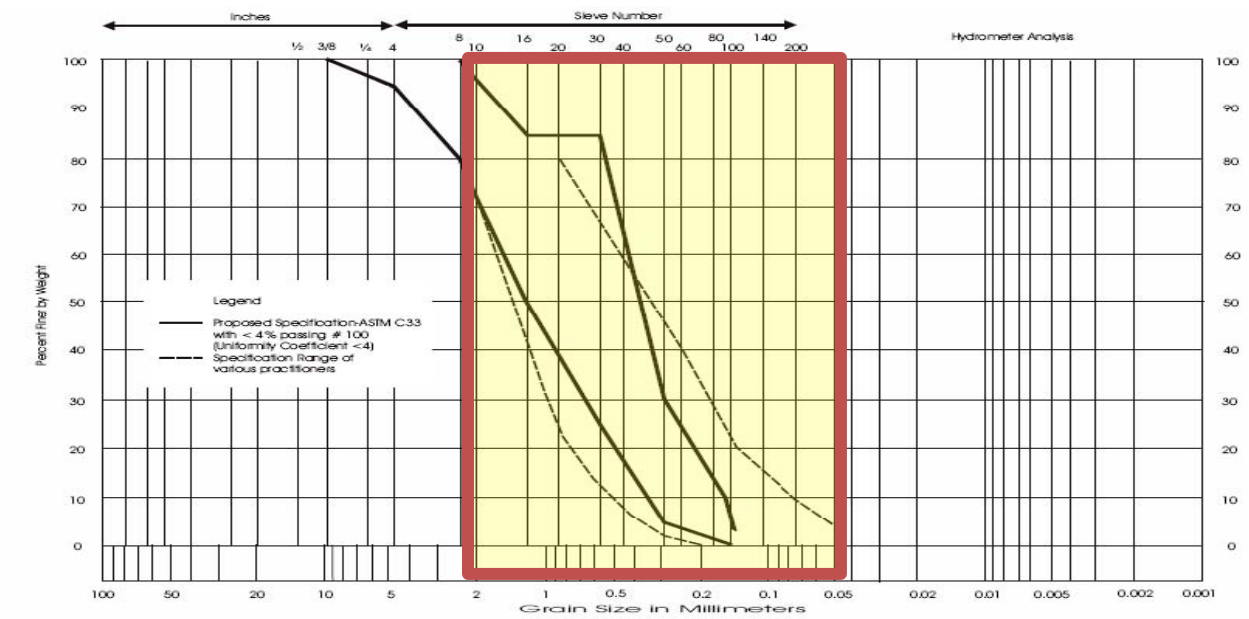
I. Barrier Material

1. Filter fabric, untreated building paper or a minimum of two inches of straw may be used for standard gravity systems.

2. Filter fabric must be used for non-standard systems and must meet approved design specifications.

J. Single-Pass Sand Filter and Mound System Filter Material

The chart below outlines filter material specifications for single-pass sand filter and mound systems.



K. Containment Vessel for Intermittent Sand Filter

1. The liner for a sand filter installed in an excavated pit must be leak proof and puncture proof to the satisfaction of the Department.

2. A concrete containment vessel must be designed as follows (unless it is designed by professional civil engineer):

   a. Above ground tank

      i. Walls

         (1) At least 6 inches thick.

         (2) 4 feet or less in height.

         (3) Rebar reinforcement: 3/8 inch diameter rebar on 2 foot centers horizontally and

vertically, with continuous lengths wrapped around the corners.

ii. Floor

(1) At least 3 1/2 inches thick.

(2) Reinforced with steel mesh (CRSI standard #6-1010) to prevent cracking and to maintain water-tightness.

iii. Tank is to be designed, constructed, and sealed to be watertight.

b. Below ground tank.

Any below-ground concrete tank must be watertight. The design of such tank is to be approved by a qualified professional engineer and, where required by local and/or state regulation.

L. Observation Port

Observation ports are required when circumstances warrant additional monitoring of the disposal field. The observation port shall be designed and installed as agreed upon between the registered professional and the Department.

CHAPTER 28 – CURTAIN DRAINS

A curtain drain may be required to intercept and/or drain water from a disposal field area. The Department may require verification of dewatering capability prior to issuing a construction permit.

CHAPTER 29 – OFF-SITE SEWAGE EASEMENTS

A. Off-site easements are prohibited under most circumstances. The Department may evaluate easement requests on a case-by-case basis where a system cannot be located on the lot or parcel to be served.

B. Off-site easements are to be utilized for repairs of existing systems and may not be considered as an option for creating new lots or parcels, except when utilized for placement of and/or connection to a community wastewater system.

C. Owners of systems that cross a property line of separate properties with different owners will be required to record an easement and/or covenant against conflicting uses. Properties under common ownership will be required to record a deed restriction against conflicting uses.

D. Exhibits and legal descriptions of easements and deed restrictions must be prepared by a licensed land surveyor unless otherwise indicated by the Department. A licensed surveyor will flag or otherwise delineate the easement area for field inspection.

SACRAMENTO COUNTY

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PART THREE

Operation and Maintenance

CHAPTER 30 – APPLICABILITY (SACRAMENTO COUNTY CODE 6.32.240 A)

O&M Plan shall be required for the following OWTS:

A. Alternative and experimental OWTS not previously approved by the Department.

B. Existing alternative and experimental OWTS, at the time a repair or modification permit is obtained. This applies only to repairs and modifications that require a repair permit pursuant to SCC 6.32.190 et. seq.

C. Existing OWTS, regardless of design, if the Department determines that oversight is critical to ensure the proper functioning and longevity of the system. Examples include, but are not limited to:

   1. Parcels with insufficient area to install a replacement disposal field;
   2. Systems subject to excessive peak wastewater flows;
   3. Systems requiring a grease removal device;
   4. Systems requiring a variance from any provision of SCC Chapter 6.32 (On-site Management of Wastewater).

CHAPTER 31 – AUTHORITY

Sacramento County Code Chapter 6.32. Sections 240 to 260, and 450.

CHAPTER 32 – ADMINISTRATION

A. Administrative Overview

   The operation and maintenance program will be administered by the Department.

B. Roles and Responsibilities

   1. Department

      a. Develop and administer the O&M program.

      b. Establish a record keeping and reporting system to ensure that current records are kept of the location, ownership, site evaluation, design, and O&M reports so that performance of the systems can be monitored.

      c. Monitor and analyze the performance of OWTS within the County by reviewing O&M data in relationship to performance standards.

d. Assure timely follow up and correction, including enforcement action when necessary, when problems are encountered with or with treatment and dispersal technologies which are being monitored through the O&M program.

e. The Department may perform O&M inspections as needed for quality assurance/quality control, surveys, and investigations.

2. System Owner (SCC 6.32.250 A)

   a. Operate and maintain the OWTS in conformance with its design specifications.

   b. Assure continued operation and maintenance of the OWTS in a manner that is consistent with SCC Chapter 6.32 and with the Manual.

   c. Report to the Department within 24 hours of discovery any system malfunction that results in surfacing sewage.

   d. Contact an O&M specialist within 24 hours of discovering any of the following conditions that could indicate a system failure or malfunction including, but not limited to:

      i. Surfacing sewage in the area of the tank or leach field.

      ii. Activation of the system's audible and/or visual alarm.

      iii. Wastewater backing up into plumbing fixtures, toilets not flushing properly, or sink drains that do not function properly.

   e. Correct deficiencies in the OWTS that have been identified by the Department and/or an O&M specialist.

3. Wastewater Hauler

   a. Must be registered with the Department as specified in SCC 6.32 Article 7.

   b. Pump septic tank and inspect the tank. Electronically report findings to the Department, when available.

   c. Report all OWTS malfunctions that result in surfacing sewage to the Department within 24 hours of discovery.

4. Registered Professional

   a. For each system designed, develop and provide the owner of the new system an O&M Plan that meets the requirements found in this Manual.

   b. Submit an electronic version of the O&M Plan to the Department for review and comment.

5. Proprietary System Authorized

    a. Provide instructions regarding the O&M of the system or device(s) to the Department, registered professional, and owner of the OWTS or device(s).

    b. Provide instruction, in sufficient detail, so that O&M specialists can perform required maintenance when needed.

6. O&M Specialist

    a. Meet and maintain the requirements for qualification as specified in this Manual (SCC 6.32.250 B1).

    b. Provide all required maintenance and monitoring reports to the Department within 30 days of service. All inspection results shall be submitted to the Department in a format prescribed by the Department. Reports will not be accepted unless legible and complete. The submission of inspection reports may require a fee.

    c. Report to the Department, within 24 hours of discovery, any system malfunction that results in surfacing sewage. .

    d. Notify the Department of any system malfunction that will require a repair permit as specified in SCC 6.32.190.

    e. Conduct O&M inspections.

CHAPTER 33 – PROGRAM ELEMENTS

A. Homeowner Education

The Department shall create a public education program that provides OWTS owners with information regarding the proper use and maintenance of an OWTS. The program goal is to provide system owners with the information needed to properly operate and maintain an OWTS.

B. O&M Data Management

The Department shall track the maintenance and performance of all OWTS in the O&M program.

C. O&M Plan

1. For standard OWTS, the licensed installer shall provide educational material to the owner of the new system at the time of installation.

2. For alternative or experimental OWTS, the registered professional shall provide the system owner with an O&M Plan and provide an electronic version to the Department.

D. Operating Permit

1. Requirements for a "Final"

   a. "Final" installation approval by the Department for a newly installed or repaired system will not be given until an operating permit has been issued by this Department, as specified in Chapter 30 of this Manual.

   b. An O&M Plan, specific for the installed system, has been provided to the system's owner and the Department (SCC 6.32.230 B4).

   c. An accurate "as-built" drawing of the system, certified by the registered professional, has been provided to the Department.

   d. If required by the Department, documentation showing proof that the operating permit requirements and servicing agreement with an O&M specialist have been recorded on the property deed (SCC 6.32.240).

2. Operating Permit Renewal Frequency

   Operating permits are required to be renewed at a frequency based on the OWTS system type.

3. Operating Permit Renewal Procedures

   a. The Department will notify the system owner of the need to renew their system's operating permit. The notice will list O&M Plan specialists who may be available to the homeowner for the inspection and maintenance of the system.

   b. The Department will renew the operating permit upon receipt of the appropriate renewal fee and verification of compliance with system O&M requirements.

4. Notice on Property Deed

   If required by the Department, owners of systems that require an operating permit shall record the following information on the property deed for the benefit of future owners and successors:

      a. Notice of the requirement for an Operating Permit

      b. An agreement granting the Department access to inspect the system after providing the property owner with proper notification.

CHAPTER 34 – INSPECTION FREQUENCY AND MAINTENANCE CHECKS

A. Inspection Frequency

1. Frequency of OWTS O&M inspection will be dependent on the complexity and maintenance requirements of the system components, and based upon:

a. Manufacturer recommendations;

b. Industry standards of practice; and

c. Conditions and/or terms placed on the operating permit by the Department.

2. Unless otherwise determined by the Department, minimum inspection frequency shall comply with Table 1.

TABLE 1
INSPECTION FREQUENCY

Inspection Interval	(Residential) Standard or Pressure Dosed System*	(Commercial) Standard or Pressure Dosed System*	Mound or Single-Pass Sand Filter	ATU or Packed-Bed Filter	Disinfection Units (Telemetry required on all disinfection units)
First 6 weeks					PL or OM (Required)
First 3 months		OM (Recommended)	OM (Required)	PL or OM (Required)	
Monthly					
Annually	Pressure dosing system PL or LI or PO or OM (Recommended*)	OM (Recommended)	OM (Required)		
As required by the manufacturer or NSF, but not less than once a year				PL or OM (Required)	PL or OM (Required)
Year 1—2 of cycle					
Year 3 of cycle					
Year 4 of cycle					
Year 5 of cycle	CP or LI or PO or OM (Recommended*)				

CP = Certified Pumper, LI = Licensed Installer, OM = Certified Operation and Maintenance Specialist, PL = Proprietary Device Licensee (also must be certified as O&M Specialist), PO = Property Owner.

3. Existing standard and pressure dosed OWTS are subject to SCC Section 6.32.240(A)(3), and may require inspections and maintenance checks should an Operating Permit be required.

B. Minimum Inspection Requirements

A registered professional, licensed installer or wastewater hauler (if applicable) shall inspect system components, such as the following:

1. Septic Tank

   a. Verify scum and sludge measurements.

   b. Observe integrity of tank, including observation for:

      i. Cracks or indications of structural deterioration

      ii. Condition of inlet and outlet "T"

      iii. Condition of lids

      iv. Indication of leaks

   c. Observe condition of effluent filter, if present.

   Recommend routine pumping of septic tanks every 3-5 years, unless inspection or O&M Plan indicates alternate pumping interval.

2. Pump and Dosing Chamber

   a. Verify scum and sludge measurements.

   b. Observe integrity of tank, including observation for:

      i. Cracks or indications of structural deterioration

      ii. Condition of inlet and outlet "T"

      iii. Condition of lids

      iv. Indication of leaks

   c. Observe condition of and correct operation of all floats.

   d. Verify all electrical cords are routed and harnessed per specifications.

   e. Observe condition of pump intake screen.

   f. Verify pump cycle.

   g. Verify siphoning devices are functioning (if installed).

Pump and/or dosing chamber shall be pumped if inspection warrants or per O&M Plan specifications.

3. Control Panel
    a. Verify timer and digital counter readings.
    b. Verify cycles on digital counter.
    c. Verify audible and visual alarms functioning.
    d. Verify that the run time is appropriate for the daily flow.
    e. Verify that the electrical box is free from moisture and all connections are secured.
    f. Inspect other system components as per manufacturer's maintenance specifications.
4. Gravity Disposal Field
    a. Measure depth of effluent throughout the trench.
    b. Verify maintenance and accessibility of observation ports.
    c. Ensure disposal field is not obstructed by roads, structures, livestock, and vehicular traffic. Ensure surface water drainage and/or down spouts are diverted away from disposal field.
    d. Confirm results of hydraulic loading test, if required.
    e. Inspect disposal field for surfacing sewage. If observed, report to the Department within 24 hours of observation. Prevent effluent from running offsite and repair as soon as possible. Submit permit to the Department when applicable.
5. Pressure Distribution Disposal Field
    a. Measure depth of effluent throughout the trench.
    b. Ensure disposal field is not obstructed by roads, structures, livestock, and vehicular traffic. Ensure surface water drainage and/or down spouts are diverted away from disposal field.
    c. Verify maintenance and accessibility of observation ports.
    d. Verify equal distribution to all laterals.
    e. Observe condition of end orifices, if possible; verify integrity of lines if required.
    f. Inspect disposal field for surfacing sewage. If observed, report to the Department within 24 hours of observation. Prevent effluent from running offsite and repair as soon as possible. Submit permit to the Department when applicable.

6. Mound

    a. Inspect mound for surfacing effluent. If observed, report to the Department within 24 hours of observation. Prevent effluent from running offsite and repair as soon as possible. Submit permit to the Department when applicable.

    c. Ensure disposal field is not obstructed by roads, structures, livestock, and vehicular traffic. Ensure surface water drainage and/or down spouts are diverted away from disposal field.

    d. Verify maintenance and accessibility of observation ports.

    e. Verify uniform distribution.

    f. Observe condition of end orifices, if possible; verify integrity of lines if required.

7. Single-Pass Sand Filters

    a. Inspect sand filter for surfacing effluent.

    b. Ensure disposal field is not obstructed by roads, structures, livestock, and vehicular traffic. Ensure surface water drainage and/or down spouts are diverted away from disposal field.

    c. Verify maintenance and accessibility of observation ports.

    d. Verify uniform distribution.

    e. Observe condition of end orifices, if possible; verify integrity of lines if required.

    g. Verify pump chamber components as per Chapter 34B(2) of this Manual.

8. Aerobic Treatment Units, Including Packed Bed Filters

    Refer to manufacturer's requirements.

9. Add-on Disinfection Component

    Refer to manufacturer's requirements.

All deficiencies observed during inspection of septic system components shall be repaired as soon as reasonably possible. If a deficiency creates a threat to public health or safety, repair(s) shall be performed within 24 hours upon discovery of the deficiency. A permit may be required for certain repairs. The responsible party must ensure that permits are obtained from all appropriate regulatory agencies prior to repairing any septic system component.

C. Effluent Wastewater Quality Testing

1. When required by the Department or an O&M Plan, effluent shall be monitored at least annually in the following manner:

    a. Treated effluent, shall be sampled and tested for BOD, TSS, and other constituents of concern.

b. OWTS that require nitrogen reduction shall be tested for Nitrate and Total Nitrogen, in addition to constituents noted in section "a" above.

c. When effluent testing results indicate that the OWTS exceeds the minimum treatment levels required by the Department, a second sample shall be taken within 90 days of the last sample. If the follow-up sampling results indicate that OWTS is not performing to the treatment levels specified in the Operating Permit or Department standards, the O&M specialist shall inform the Department in writing within 14 days of receipt of sample results. The O&M specialist shall also implement a corrective action plan to achieve the treatment levels specified in the Operating Permit or Department standards. The Corrective Action Plan shall be submitted to the Department within 30 days of receipt of sample results for review prior to implementation. Compliance shall be verified by two consecutive compliant sample results within a 90 day period. Sample results shall be submitted to the Department for review and documentation of compliance.

d. Untreated influent may require sampling and testing as determined by the O&M Plan or the Department.

CHAPTER 35 – O&M PLAN

A. The owners of new alternative and experimental OWTS requiring an Operating Permit shall be provided with an O&M Plan prepared by the designing registered professional and accepted by the Department.

B. The O&M Plan shall be amended by the registered professional if the system is upgraded or requires repair.

C. The plan shall include at a minimum:

1. Diagrams of all system components.

2. An accurate scaled as-built drawing of the system.

3. A narrative describing how the system achieves its treatment standards.

4. A narrative of the system's general function, operational expectations, and owner responsibilities.

5. The system's required routine maintenance schedule.

6. The names and telephone numbers of the registered professional, licensed installer, and OWTS operation and maintenance specialists.

7. A list of proprietary system components, including manufacturer names and model numbers.

8. Information on "troubleshooting" common operational problems that may occur with a specific system.

CHAPTER 36 – O&M SPECIALIST CRITERIA

An O&M specialist may provide operation and maintenance services for proprietary or alternative systems if:

A. The O&M specialist possesses a current registration with the National Association of Wastewater Transporters (NAWT) as a certified Operation and Maintenance Specialist or,

B. The O&M specialist is one of the following:

   1. Registered Environmental Health Specialist (REHS)

   2. Professional Engineer (PE)

   3. Professional Geologist (PG)

Note: Individuals or entities such as wastewater haulers, licensed installers, proprietary system authorized agents, and property owners, who meet the qualification criteria as listed in A&B above, may be authorized by the Department to perform O&M on standard OWTS on a case-by-case basis.

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PART FOUR

Non-Discharging Wastewater Treatment Systems

Non-discharging OWTS are OWTS that do not discharge wastewater. They are designed to collect, hold, and/or treat sewage without direct connection to sanitary sewers or to an OWTS. The most commonly used non-discharging OWTS include holding tanks, portable toilets, and vault privies. Composting and incinerating toilets are also examples of non-discharging OWTS.

CHAPTER 37 – APPLICABILITY

The following standards shall apply to the siting, design, construction, installation, repair, modification, operation, replacement, maintenance, and destruction of new and existing non-discharging wastewater treatment systems, whether proposed as part of a new installation, repair, modification, land subdivision, building permit, land use permit, or special event.

These standards shall not apply to wastewater holding tanks, vault privies, or portable toilets regulated by a State or Federal regulatory agency.

CHAPTER 38 - AUTHORITY

These standards are pursuant to Sacramento County Code Chapter 6.32 Sections 005, 020(A1, A3), 050, 080, 085, 090, 350, 370, and 420-450.

CHAPTER 39 - WASTEWATER HOLDING TANK

A holding tank is a watertight container designed to receive and store wastewater for disposal at another approved location.

A holding tank may be used as a means for sewage disposal only if the following conditions apply unless otherwise approved by the Department on a case by case basis:

A. The site cannot be approved for the installation of a standard system or supplemental treatment system.
B. A public sewer system is not legally and/or physically available to the site.
C. The holding tank will serve only non-residential or non-commercial, limited use applications, such as a limited use agricultural buildings or recreational facilities.
D. The cumulative sewage volume shall not exceed 300 gallons per day.
E. The holding tank meets the specifications as specified in Part 2 of this Manual.
F. The property owner shall record a deed restriction agreeing to be served by a public sewer system when connection is feasible as described in the Ordinance.
G. The property owner shall provide the Department with:

    1. A copy of a contract with a Department-registered wastewater hauler that shows the tank will be pumped at regular intervals, or as needed to prevent use of greater than 75% of the tank's capacity. The contents of the tank must be disposed of at an approved septage receiving facility, in an approved manner; and

2. A record of pumping dates and amounts pumped must be maintained by the property owner and made available to the Department upon request.

H. A holding tank must be designed and installed under the inspection and approval of a registered professional.

I. Each tank will have the holding capacity of the highest anticipated daily flow plus 100% storage capacity.

J. Holding tanks will not be used as a method for sewage disposal for the creation of new parcels.

K. An Operating Permit is required and must be renewed annually.

L. All installations shall conform with the following:

1. A holding tank shall be located and designed to facilitate a visual inspection of the tank and allow for easy pumping of the contents.

2. A holding tank shall be equipped with both an audible and visual alarm that indicates when the tank is 75% full. Only the audible alarm shall be user-cancelable

3. The overflow vent shall not be at an elevation lower than the overflow level of the lowest fixture served.

CHAPTER 40 – VAULT PRIVIES

A vault privy is a structure used for disposal of human waste without the use of water. It consists of a structure or outbuilding that is built above a watertight subsurface vault, of which is used to receive human waste. A vault privy is not connected to a water source. Vault privies require the following:

A. The vault privy services only non-residential, non-commercial, limited use applications, such as:

- Primitive-type picnic grounds,
- Campsites, camps and recreation areas where the Department has made the determination that an OWTS cannot be installed.

B. Vault privies must be located and designed to facilitate easy removal of accumulated waste. Vault privy proposals will be evaluated by the Department on a case-by-case basis.

C. The vault shall be constructed in compliance with the specifications for septic tanks.

D. Vault privies shall not be sited in areas prone to flooding, and shall be routinely maintained to prevent health hazards and pollution of public waters.

E. As a condition of a construction permit approval, vault privies may require an Operating Permit.

F. The vault shall not be allowed to become filled with human waste to such a degree that the waste has accumulated to within 2 feet of the top of the vault.

G. Waste that has accumulated in the vault shall be pumped out by a registered septic tank cleaner or wastewater

hauler at such an interval so as to prevent overflow.

H. The vault privy shall be maintained in a safe and sanitary condition.

I. Water-carried sewage shall not be discharged into a vault privy. The contents of vault privies shall not be discharged into storm drains, on the surface of the ground, or into the waters of the State of California.

J. Vault privy structures shall be free of unsafe conditions, such as exposed nail points, splinters, sharp edges, and rough or broken boards. All vault privies shall provide privacy and protection from the elements.

K. Vault privies shall be vented to the outside atmosphere using a vent stack with a minimum inside diameter of 4 inches. Ventilation for vault privy structures shall be adequate to allow for unhindered use. All vents shall be screened with durable fine mesh screen.

L. Buildings shall be insect and rodent resistant. Doors shall be self-closing and equipped with an inside latch.

M. Interior floors, walls, ceilings, partitions, and doors shall be constructed of an impervious material that is easily cleanable, resistant to wastes and cleaning agents, and resistant to the entry of vermin.

N. The stool opening shall be covered with an attached, open-front toilet seat equipped with a lid.

O. A toilet tissue holder shall be provided for each seat.

P. Vault chambers shall be watertight and constructed of reinforced concrete, plastic, fiberglass, or other material of acceptable durability and corrosion resistance, as approved by the Department.

Q. Stools shall have a minimum clear space of 24 inches between multiple-unit installations and a clear space of 12 inches from the seat opening to the side building wall in single and multiple units.

CHAPTER 41 – PORTABLE TOILETS

A portable toilet is a watertight, portable, self-contained toilet structure that may contain an environmentally safe bactericide and/or deodorant. A portable toilet is not directly connected to a water source. The uses of portable toilets include, but are not limited to:

A. Portable toilets are intended to be used as a method of sewage disposal for non-residential, limited use applications, such as primitive-type picnic grounds, campsites, special events, and temporary construction sites where the Department has made the determination that an OWTS is not feasible. Portable toilets shall not be used as a method of sewage disposal for residential or commercial applications.

B. An Operating Permit is not required for temporary use of portable toilets.

C. Portable toilets must be routinely maintained to prevent public health hazards and pollution of water.

D. Water-carried sewage shall not be discharged into a portable toilet.

E. The contents of portable toilets shall not be discharged into storm sewers, on the surface of the ground, or into

the waters of the State of California.

F. The requirements or the use of vault privies, as listed in Chapter 40 of this Manual, Sections I - P will also apply to portable toilets and are hereby incorporated by reference.

G. Portable toilets shall have waste detention chambers constructed of stainless steel, plastic, fiberglass, or of other material approved by the Department.

H. Waste passages shall be constructed with smooth surfaces and be free of obstructions, recesses or cross braces that restrict or interfere with the flow of sewage.

I. Biocides and oxidants shall be added to waste detention chambers as recommended by the manufacturer.

J. Waste detention chambers shall provide a minimum storage capacity of 50 gallons per seat.

K. Portable toilet structures shall at a minimum:

1. Display the business name and phone number on the exterior of the structure, in legible sized print, of the servicing registered wastewater hauler service.

2. Provide screened ventilation to the outside atmosphere.

3. Provide a minimum floor space of 9 ft^2 per seat, outside of the riser.

4. Provide separate compartments with doors and partitions or walls of sufficient height to ensure privacy in multiple-unit structures. Separate compartments are not required for urinals.

L. The minimum recommended quantity of portable toilets and handwashing lavatories for private and public events may be determined as follows (Special Events Contingency Planning Job Aids Manual. FEMA, March 2005):

1. Criteria to determine the quantity of portable toilets that are required for a special event include, but are not limited to:

    a. Duration and type of event

    b. Weather conditions

    c. Predetermined vs. undetermined patron volume

    d. Consumption of alcohol

2. Where local laws or regulations do not exist, the following guidelines (Table 1) may be used to calculate the number of portable toilets required for an event:

Table 1

Toilet Facilities For Events Where Alcohol Is Not Available

	Male			Female	
Patrons	**Toilets**	**Urinals**	**Sinks**	**Toilets**	**Sinks**
<500	1	2	2	6	2
<1000	2	4	4	9	4
<2000	4	8	6	12	6
<3000	6	15	10	18	10
<5000	8	25	17	30	17

Table 2

Toilet Facilities For Events Where Alcohol Is Available

	Male			Female	
Patrons	**Toilets**	**Urinals**	**Sinks**	**Toilets**	**Sinks**
<500	3	8	2	13	2
<1000	5	10	4	16	4
<2000	9	15	7	18	7
<3000	10	20	14	22	14
<5000	12	30	20	40	20

These figures may be reduced for shorter duration events as follows:

Events lasting more than eight hours = 100%

Events lasting six to eight hours = 80%

Events lasting four to six hours = 75%

Events less than four hours = 70%

Source: Special Events Contingency Planning Job Aids Manual. FEMA, March 2005, Sections 2-28, 2-29

CHAPTER 42 – COMPOSTING TOILETS

A. General

A composting toilet is an OWTS designed to aerobically treat (compost) human waste to an extent that a stable, soil-like byproduct (humus) is generated.

Owners and operators of a composting toilet must be made aware that the successful operation of this type of toilet requires constant attention to the composting process. Individuals must be willing to accept the responsibility of the composting operation before considering installation of a composting toilet. Composting toilets that are improperly operated, or not routinely monitored and maintained can spread disease, pollute surface and groundwater, or create a public health hazard and/or nuisance.

Owners and operators of composting toilets must also be made aware of how the final composted product may be disposed of or used for beneficial purposes. Federal, State, and local regulations may determine the proper disposition of the final product of a composting toilet. Composting toilets should only be considered for limited use applications where public sewer or the parcel is capable of supporting an OWTS, but the property owner wishes to pursue this type of alternative technology.

B. Requirements

No person shall install, use, or maintain a composting toilet, except where all of the following requirements are met:

1. The local building authority has granted permission for the use of the composting toilet.
2. The parcel is capable of supporting a compliant OWTS, or a connection to public sewer is provided.
3. A permit is obtained from the local building authority.
4. An Operating Permit is obtained from the Department.
5. The composting toilet is installed, maintained, or replaced in accordance with the manufacturer's recommendations.
6. No material is placed in a composting toilet other than the material for which it has been designed.
7. Installation of the toilet has been inspected by the local building authority.
8. An O&M plan is provided to the homeowner and the Department by the manufacturer.

C. Selection of Composting Toilet

1. The toilet shall be specifically designed for the holding and processing of human waste associated with toilet usage, and shall employ the process of biological decomposition in which human waste is converted into a compost-like substance.
2. The toilet shall be currently listed by the NSF under NSF/ANSI Standard 41.

3. The type of the composting toilet selected must be appropriate for the quantity of waste to be treated, and shall be sized according to the manufacturer's specifications. The assumed number of users shall be calculated based on either:

    a. Calculation by Number of Bedrooms:

    The number of occupants of each dwelling unit shall be calculated as follows:

    i. First Bedroom = 2 occupants

    ii. Each additional bedroom = 1 additional occupant, or

    b. Calculation by Anticipated Actual Number of Users:

    The applicant indicates the maximum foreseeable number of persons who will be living at the residence and using the composting toilet. Examples include:

    i. If only 1 person will reside in a three bedroom home, the composting toilet selected shall be a toilet recommended to serve at least 4 residents.

    ii. If 5 people will reside in a 1 bedroom home, the composting toilet selected shall be a toilet recommended to serve at least 5 occupants.

D. Management of Finished Compost and Liquid By-Products

1. The residual liquid waste by-product of the composting toilet shall be collected, transported, and discharged in a manner compliant with all federal, state, and local regulations. Acceptable methods of disposal include:

    a. Discharge into sanitary sewer or a permitted OWTS, or

    b. Pump out by a septic pumper truck registered with this Department.

2. The residual solid by-products of composting digestion shall to be handled and disposed of only after the digestion process is complete, per manufacturer's specifications.

3. Composting toilets have been shown to be capable of achieving pathogen reduction via microbial processes that take place within the composting chamber. Due to external conditions or operational irregularities, the conditions in the unit may not always be optimal for pathogen reduction, and improper handling and disposal of the product could negatively impact public health. The composted residual solid by-product must be transported and disposed of in a manner that does not create a public health hazard or nuisance, is in compliance with the requirements of the Operating Permit and manufacturer's specifications.

    a. Acceptable methods for the disposal of composted residual solid by-product include transportation by a septic pumper truck registered with this Department to an approved wastewater treatment plant or solid waste disposal facility capable of accepting human waste; or

b. Disposal by the homeowner on the property where the toilet is located, shall meet all the following conditions:

i. Bury the waste under a minimum of 6 inches of compacted soil;

ii. The location for burial shall be shown on a site plan submitted with the Operating Permit.

iii. Waste shall not be buried in any present or planned food crop growing areas or dairy pasture; and

iv. The waste shall not be buried where there is less than 36 inches of native, undisturbed soil between the bottom of the burial excavation and a seasonal, perched water table, or in an area subject to seasonal runoff where the discharge could flow into surface or subsurface water.

E. Site Evaluation Requirements

A site evaluation, submitted to the Department, shall be performed by a registered professional that indicates that the parcel is capable of accommodating an OWTS for typical domestic wastewater disposal, in addition to the disposal of the residual liquid and solid by-products of the composting toilet.

Setback requirements for the disposal site of the residual solid by-products shall be the same as those for OWTS.

F. Operating Permits.

1. A composting toilet shall require an Operating Permit for installation and replacement.

2. Operating permits for composting toilets, unless suspended or revoked by this Department for non-compliance with the permit requirements, are valid for the period the permittee resides on the property and utilizes the toilet.

3. A person selling a parcel on which there is an approved Operating Permit for a composting toilet must notify the Department of the transfer, and disclose to the prospective purchaser the presence of a composting toilet, the requirement to obtain an operating permit, and the location (as approved by the Department) for disposal of the residual liquid or solid by-product.

4. Operating Permits are not transferrable from the seller to the buyer upon sale of the property.

5. The Department will revoke an Operating Permit if any of the following conditions exists:

a. An unsanitary condition has been caused by the toilet or its use;

b. The residual by-products of composting digestion has been improperly transported, disposed of, or used;

c. The toilet is not operated or maintained as specified in the Operating Permit or O&M Plan, or fails to meet its design or operating specifications; or

d. Continued use of the toilet poses an imminent health hazard.

G. O&M Plan

1. No person shall install, maintain, or replace a composting toilet unless an O&M plan is provided to the owner, and is readily available for reference.

2. The O&M plan shall at a minimum, contain all the following information:

   a. Potential health risks from improper use or maintenance of the composting toilet;

   b. Manufacturer's name and model number;

   c. Manufacturer's NSF listing;

   d. Manufacturer's recommended operational capacity;

   e. Manufacturer's O&M recommendations;

   f. Trouble-shooting information;

   g. Service provider's contact information;

   h. Method of handling and site for disposal of the residual liquid and solid by-products of composting.

H. Recorded Disclosure Document.

A notification in the form of a deed restriction shall be recorded informing future property owners of the following:

1. The potential health risks associated with the product of composting digestion;

2. The property owner's responsibility to maintain an O&M Plan for the composting toilet;

3. The property owner's responsibility to maintain a current Operating Permit for the composting toilet; and

<u>It is the property owner's responsibility for properly operating and maintaining the system in accordance with the O&M Plan and the Operating Permit.</u>

SACRAMENTO COUNTY

Onsite Wastewater Treatment System Guidance Manual

PART FIVE

Subdivisions, Lot Line Adjustments, Use Permits, Building Permits

CHAPTER 43 – USE PERMITS AND BUILDING PROJECTS

A. Applicability

This document applies to all individuals applying for a building permit or Use Permit for a parcel that relies on or will require an OWTS.

B. Regulation

1. Any person proposing to develop on a parcel that requires the use of an OWTS, regardless of the type of development, shall first obtain approval from the Department.

2. A building permit or Use Permit shall not be issued for a parcel, place of business, or other project that requires the use of a new or existing OWTS, without prior approval from the Department.

C. Approval Required

Department approval of a "tentative plot plan" is required for the following:

1. The building project will require a means of wastewater disposal other than public sewer.

2. The building project will increase the footprint of an existing structure that currently relies on an OWTS.

3. The building project will add additional bedrooms or increase the daily wastewater flow to an existing structure that relies on an OWTS.

4. The building project or Use Permit will result in the increase of the wastewater strength beyond that of domestic- strength wastewater.

5. The building project will add additional structures or outside fixtures that may impact any component of an existing OWTS, including the disposal field replacement area. Such structures and outdoor fixtures shall include, but are not limited to, garages, barns, sheds, built-in swimming pools, and driveways.

D. Approval Criteria

1. New Construction

   a. A site evaluation, as described in Part One of the Manual, is required for all commercial projects. Residential projects located within restricted areas of the county (as depicted on the "Test Drill" map) also require a site evaluation. The Department will not process a "tentative plot plan" for commercial or restricted area residential projects unless there is an approved OWTS design on file for the specific project or parcel.

   b. Applicants requesting a "tentative plot plan" approval must submit drawings (which include both a plot plan and a floor plan) to the Department for review.

c. Plot plans must clearly show the following (existing or proposed):

   i. Vicinity map;

   ii. Scale used;

   iii. Lot dimensions, including all property lines;

   iv. Setbacks and side yards;

   v. Paved areas and unpaved areas subject to vehicular traffic;

   vi. Easements and rights-of-way, public and private;

   vii. Structures, dwellings (including pools and auxiliary buildings); Animal enclosures;

   viii. Fuel tanks, hazardous material storage;

   ix. Plumbing stub-out;

   x. Water lines (public and private); 10-year storm event;

   xi. Existing and proposed wells, abandoned wells, springs, neighboring wells, streams, ditches, canals, culverts, ponds, lakes, swales, vernal pools, 10-year flood plains, or any body of water (intermittent or perennial) located within 100’ of property lines;

   xii. Existing and proposed on-site wastewater treatment systems (including replacement areas), abandoned septic tanks, pretreatment and storage devices, sewer lines, storm sewers;

   xiii. Soil profile test holes, percolation test holes, groundwater observation wells;

   xiv. Percent and direction of slope in disposal field area and 50’ adjacent to it on all sides. A contour map is recommended and may be required by this Department depending on conditions observed at the site;

   xv. Trees within 10’ of sewage disposal areas (including replacement areas);

   xvi. Underground utilities within 10’ of OWTS (including replacement area);

   xvii. Cut banks, unstable land forms, bluffs and ravines;

   xviii. Floor plan (including number of bedrooms).

d. The appropriate plot plan review fee has been paid to the Department.

2. Remodels, Addition of Bedrooms

    a. The Department must have an OWTS design on file before a "tentative plot plan" may be processed. If an OWTS design is not on file, a system evaluation may be required. A system evaluation consists of a written professional opinion stating that an existing OWTS was constructed and is operating in compliance with state and local regulations. Evaluations shall be performed by a registered professional, licensed installer, or an individual accepted by the Department.

    b. Deficiencies observed in an existing OWTS design must be corrected pursuant to current state and local regulations.

    c. The appropriate plot plan review fee has been paid to the Department.

    d. Submitted plot plans must comply with the requirements of section D.1.c. above.

3. Residental Accessory Buildings

    a. A separate OWTS is required for a Residental Accessory Building.

    b. Approval process is the same as D.1 above.

4. Temporary Medical Hardship

    a. A temporary medical hardship may connect to an existing OWTS without modification to that system under the following conditions:

        i. The addition of the temporary structure is in compliance with all local rules and regulations.

        ii. EMD has a record of the OWTS. In lieu of EMD records an inspection meeting the requirements of Chapter 34.b.1 will be required.

        iii. The addition of the temporary sturcture will not exceed 100% of the deign capacity of the exisitng OWTS as determined by current standards.

        iv. The existing OWTS is functioning properly. A system evaluation may be required prior to approval.

        v. Submitted plot plan muct comply with the requirements of section D.1.c above.

CHAPTER 44 – SUBDIVISIONS, PARCEL SPLITS, AND LOT LINE ADJUSTMENTS

Given the complexity of an OWTS and land use projects, applicants are encouraged to consult with the Department prior to commencement of a land use project.

A. Applicability

This document applies to all divisions of land and lot line adjustments in areas of the County where public sewer is not available.

B. Background

A new Ordinance was adopted by the Sacramento County Board of Supervisors in 2010.The new Ordinance changed the minimum lot size requirements to allow for:

1. Provide for adequate OWTS repair area availability, while allowing property owners to make reasonable property improvements, and

2. Ensure the protection of groundwater by decreasing the concentration of untreated OWTS effluent disposed of over a given area of land.

C. Regulation

1. Parcels created after the effective date of the Ordinance require a minimum parcel size of 2 acres if both an OWTS and a private well are proposed. Parcels that require the use of an OWTS but are connected to a public water system require a minimum parcel size of 1 acre.

2. Lot line adjustments and parcel splits for existing parcels currently serviced by an OWTS shall be prohibited when such actions interfere with the original siting, design, construction, or operation of an existing OWTS, including encroachment of the reserve disposal field area. The applicant for such project may be subject to a system evaluation as defined in Section 43 D 2 of this Manual.

3. No parcel shall be developed beyond its capacity to properly absorb sewage effluent.

4. Any person proposing to develop property that requires the use of an OWTS whether for new construction, remodel, addition or replacement, must first obtain approval from the Department. The person proposing such development shall submit to the Department a copy of the general plot plan and a copy of the floor plan for project evaluation. A site evaluation or system evaluation may be required by the Department prior to project approval.

D. Requirements

1. Lot Line Adjustments

   a. Prior to the approval of any application for a lot line adjustment, the Department must have sufficient information on file regarding the siting and design of an existing OWTS to ensure compliance with local regulations. If the OWTS design information is not available, a system evaluation may be required. A system evaluation consists of a written professional opinion stating that an existing OWTS was constructed and is operating in compliance with state and local regulations. Evaluations shall be performed by a registered professional, licensed installer, or an individual accepted by the Department.

   b. Deficiencies observed in an existing OWTS design must be corrected pursuant to current state and local regulations.

   c. Submitted project plans must comply with the requirements of Section 43 D.1.c. above.

2. Subdivisions and Parcel Splits

   a. Unless waived by the Department, no subdivision final map shall be recorded without an approved OWTS design that is on file with the Department. Parcel maps shall be required on a case-by-case basis.

   b. Minimum lot size for parcels created after September 19, 2010 shall be two (2) acres if they will require an OWTS and water from a private well. If public water is available, the required minimum lot size is one (1) acre.

   c. Site Evaluation

      i. The following categories of development shall require percolation testing as described in Part One of this Manual:

         1) Subdivisions of 5 lots or more

         2) Subdivisions of four (4) or fewer parcels at the discretion of the Department

         3) Commercial or other non-residential development, unless waived by the Department

         4) Any development proposing to use OWTS as a means of sewage disposal.

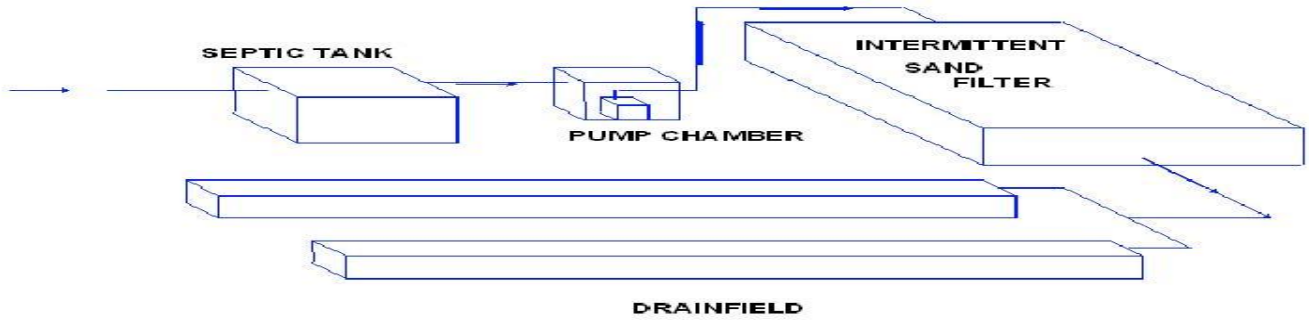
      ii. Each individual lot in the restricted area shall be evaluated to determine the type and size of OWTS to be installed. Testing shall comply to the requirements of the site evaluation process described in Part One of this Manual.

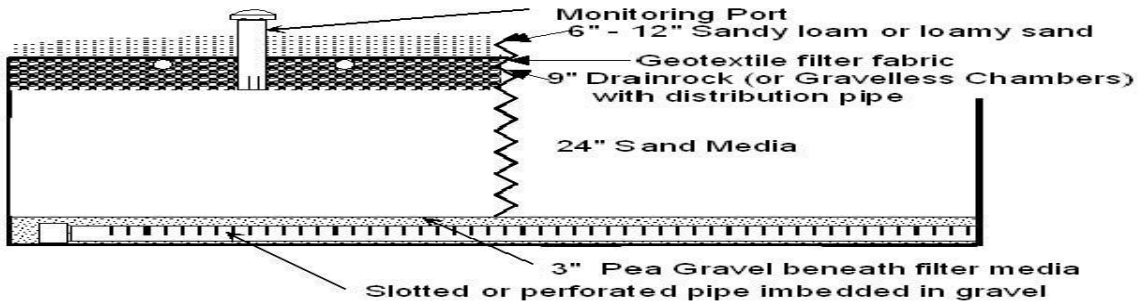
      iii. Projects that have been determined by the Department as having the potential for a

negative impact on surface and/or groundwater may require a hydrogeological study of the area and a report submitted to the Department for review. The report must address the potential impact to groundwater quality and must include but not be limited to the quantity and quality of wastewater discharged, groundwater recharge, soil transmissivity, fluctuations in groundwater level, and any other appropriate variables.

APPENDIX A

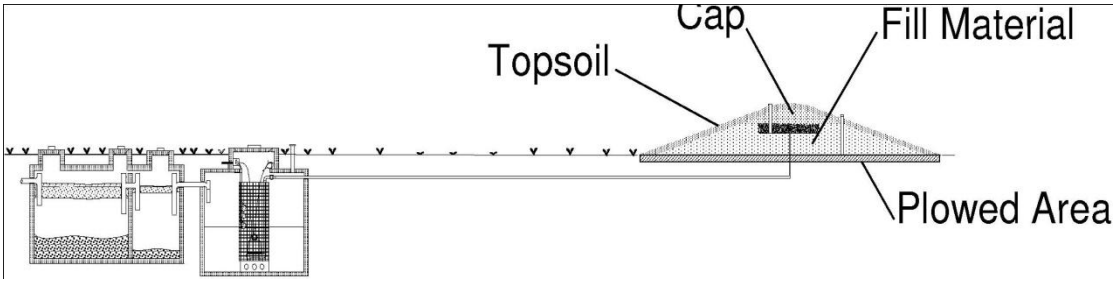
SYSTEM DRAWINGS



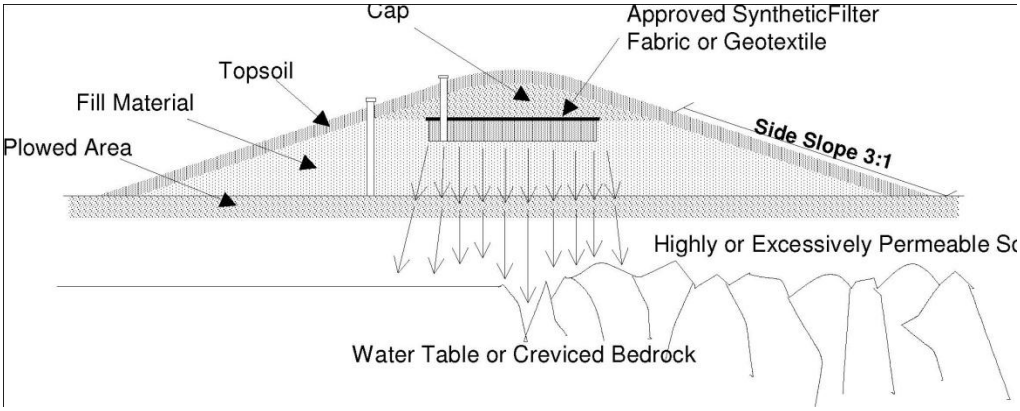


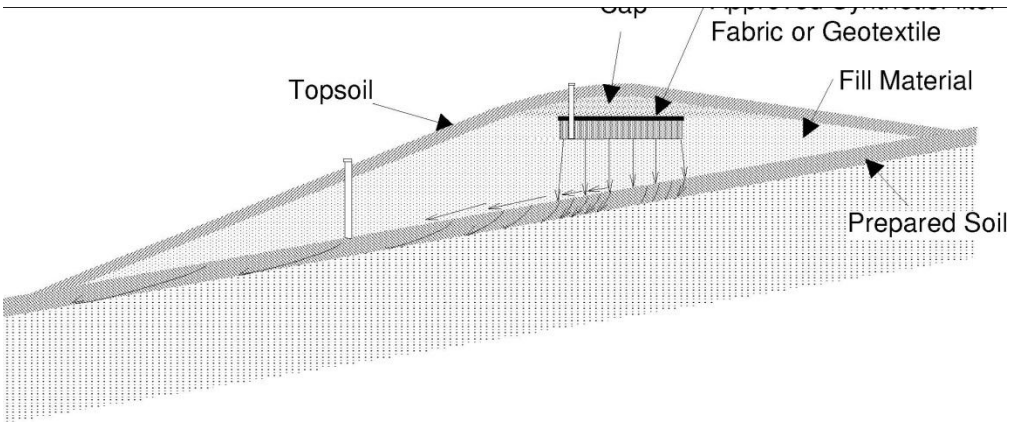
Mound System Drawings

Septic Tank Pump Chamber Mound



Cap Approved Synthetic Filter Fabric or Geotextile Fill Material Topsoil





APPENDIX B

DEPARTMENT APPROVED PROPRIETARY COMPONENTS AND SYSTEMS

1. Tuf Tite Distribution Boxes (D-Box)

   4-9 hole D-Boxes approved for use; must be set in a concrete base to increase stability

2. Infiltrator gravelless trench chambers

   All size and profiles approved for use in lieu of rock and standard perforated pipe; reduction in sidewall area not allowed

3. Ring Industrial Group E-Z Flow Drainage Systems gravelless trench perforated piping

   Approved for use in lieu of rock and standard perforated pipe; reduction in reduction in infiltration area (sidewall) not allowed.

4. Tanks constructed of material other than concrete

   Must be IAPMO approved or NSF listed; installer must provide tank specifications/cut sheets

5. Hoot Aerobic Systems

   Must be designed by a registered professional; may require additional tank to allow for 48 hour retention; reduction in reduction in infiltration area (sidewall) not allowed.

6. Orenco Systems, Inc.

   Must be designed by a registered professional; may require additional tank to allow for 48 hour retention; reduction in reduction in infiltration area (sidewall) not allowed.

LOCAL AREA MANAGEMENT PROGRAM (LAMP)

PART FOUR

POLICIES

The following policies have been established in order to be protective of public health and the environment.

1. ENFORCEMENT POLICY (Pages 2-26)
2. DISPOSAL OF LIQUID WASTE OTHER THAN DOMESTIC SEWAGE (Page 27)
3. GUIDELINES FOR WATER WELL/SEEPAGE PIT ENCROACHMENT (Page 28)
4. GRAYWATER POLICY (Page 29)
5. SEPTIC SYSTEM ON SMALLER PARCELS (Page 30)

Sacramento County
Environmental Management Department

ONSITE WASTEWATER TREATMENT SYSTEMS ENFORCEMENT POLICY

Environmental Compliance Division
10590 Armstrong Avenue
Mather, CA 95655
(916) 875-8550

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I. Statutory Authority

In November 2010, Sacramento County revised its existing Onsite Management of Liquid Waste ordinance (Sacramento County Code, Chapter 6.32). The 2010 revision includes administrative penalty provisions consistent with Government Code Section 53069.4, which authorizes local agencies to make any violation of any ordinance enacted by the local agency subject to an administrative fine or penalty, as long as the local agency sets forth by ordinance the administrative procedures governing the imposition, enforcement, collection, and administrative review of those fines or penalties. Sacramento County Code, Section 6.32, Article 10 sets forth administrative enforcement procedures for violations of Chapter 6.32, and it sets the maximum penalty for violation of any provision of the Chapter at one thousand dollars ($1,000.00) for each day on which each violation occurs and/or continues.

II. General Information

It is the policy of the Sacramento County Environmental Management Department (SCEMD) to achieve compliance with applicable environmental laws and regulations through an extensive inspection program, educational outreach efforts and, if necessary, the initiation of appropriate enforcement action(s). The goal of any enforcement action is to: (1) return the regulated entity to compliance in a timely manner; (2) eliminate economic benefit; (3) punish violators, and (4) deter future noncompliance. Within SCEMD, the Environmental Compliance Division (ECD) is responsible for initiating and implementing appropriate enforcement actions for violations of the Onsite Wastewater Treatment System (OWTS) program requirements.

A. Timeliness. In order to achieve the maximum effectiveness from a specific enforcement action, timeliness is essential. Timely enforcement is measured from the date of the inspection or incident when the violation(s) were first detected. If an Administrative Enforcement Order (AEO) is the selected enforcement option, then the goal of the ECD is to issue a Final Order as soon as possible given the individual circumstances of the case. If the case is to be referred to an outside enforcement agency such as the Sacramento County District Attorney's Office, then the goal is to refer the case as soon as possible after the determination to refer is made.

B. Documentation. Proper documentation forms the basis for any contemplated enforcement action. This must include:

1. The issuance of adequate and proper notices to the Respondents describing the violations;

2. Possible use of photographs depicting the violations;

3. The clear and complete documentation of any interviews with witnesses;

4. The sampling and preservation of any available physical evidence; and;

5. The maintenance of an accurate chronology of events.

C. Roles and Responsibilities.

1. The Director of SCEMD (or designee), shall:

   Review and sign AEO's, other Orders and Stipulations, Consent Agreements and other documents generated for Respondents with a penalty assessment of $100,000 or more.

2. The ECD Chief (or designee), shall:

   a. Review and sign AEO's, Stipulations and Orders, Consent Agreements and any other documents generated for Respondents with penalty assessments less than $100,000.

   b. Confer with supervisors and determine which cases should be referred to outside enforcement agencies for action, pursuant to guidance outlined in this manual.

   c. Conduct informal conferences with the Respondents for the purposes of explaining or negotiating the penalty.

   d. Meet routinely (at least monthly) with ECD Supervisors to discuss potential enforcement actions.

3. ECD Supervisors shall:

   a. Determine whether alleged violations of the liquid waste ordinance require formal enforcement.

   b. Ensure that staff understands enforcement procedures and prepares potential formal enforcement actions in accordance with the provisions of this manual.

   c. Review, approve, and forward all draft enforcement documents prepared by line staff.

4. Line Staff shall:

   a. Conduct inspections of regulated entities and/or respond to notifications or complaints that allege violations of the OWTS ordinance.

   b. Prepare and issue notices of violation to regulated entities that are in violation of the OWTS ordinance.

   c. Write draft enforcement documents when appropriate.

III. Guidelines for Case Referral to Outside Agencies. To the greatest extent possible, SCEMD will utilize administrative enforcement options to achieve compliance with applicable laws and regulations. However, cases will occur where action by outside agencies such as the Sacramento County District Attorney's office or the State Attorney General is required and/or appropriate.

A. Examples of Referrals. The following are examples of situations that may warrant referral to an outside agency for possible enforcement action:

1. Criminal prosecution is warranted.

2. Multiple locations (facilities) are involved that may suggest an industry or companywide pattern of non-compliance.

3. The violator has displayed recalcitrant behavior involving significant violations.

4. The case requires additional investigation that is beyond the capability of SCEMD.

5. The case stems from a Sacramento County Environmental Crimes Task Force operation/investigation.

B. Evaluation. The Chief of the Environmental Compliance Division (or designee) will evaluate each case with respect to the factors listed above and determine whether the case will be referred to an outside enforcement agency. Consultation with the Director of SCEMD and/or the appropriate agency may be needed under some circumstances.

IV. Definitions

A. "Administrative Enforcement." Administrative enforcement allows the SCEMD to pursue action independent of an outside prosecutorial agency. SCEMD also determines the appropriate penalty based on the circumstances of the violation and the violator, and statutory or regulatory penalty criteria. The SCEMD may set the penalty and the time frame for the violator's return to compliance. If the alleged violator chooses to contest the case, SCEMD schedules a hearing at which there is the opportunity to refute the allegations and present any mitigating factors that may affect the penalty.

B. "Administrative Enforcement Order (AEO)." Includes any of the order variations including the Consent Order, Expedited Consent Order, Stipulation and Order, and Unilateral Order.

C. "Final Order" means, for purposes of this guidance, an AEO that has been formally issued, with (Consent) or without the consent (Unilateral) of the Respondent and that has become final.

D. "Formal Enforcement." Formal enforcement is an action that mandates compliance and initiates a civil, criminal, or administrative process that results in an enforceable agreement or Order. Enforceable means the instrument creates an independent, affirmative obligation to comply and imposes sanctions for the prior failure to comply. Sanctions include fines and penalties as well as other tangible obligations, beyond returning to compliance, that are imposed upon the regulated entity.

E. "Minor Violation." Means the failure of a person to comply with any provision of Chapter 6.32 that <u>does not include any of the following</u>:

1. A violation that results in injury to persons or property, or that presents a significant potential threat to human health or the environment;

2. A knowing willful or intentional violation;

3. A violation that is a chronic violation or that is committed by a recalcitrant violator. In determining whether a violation is chronic or a violator is recalcitrant, SCEMD shall consider whether there is evidence indicating that the violator has engaged in a pattern of neglect or disregard with respect to applicable regulatory requirements;

4. A violation that results in an emergency response from a public agency;

5. A violation that enables the violator to significantly benefit economically from the noncompliance, either by reduced costs or competitive advantage;

6. A violation that hinders the ability of SCEMD to determine compliance with any other applicable local, state, or federal rule, regulation, information request, order, variance, permit, or other requirement.

F. "Notice of Defense." A request for a hearing is referred to as a "Notice of Defense" (NOD).

G. "Respondent." A Respondent is the entity that is the alleged violator.

H. "Supplemental Environmental Project (SEP)" means an environmentally beneficial project or projects that a Respondent agrees to undertake in settlement of an enforcement action, but which the Respondent is not otherwise legally required to perform.

V. <u>Administrative Enforcement Order Process</u>

A. Introduction.

1. SCEMD is authorized by the Government Code, Section 53069.4 and by the Sacramento County Code, Section 6.32.550 to impose administrative penalties.

2. The goal of the AEO is, among other things, to return a regulated entity to compliance in a timely manner; eliminate economic benefit; punish the violator; and create deterrence against future noncompliance.

3. To expedite achieving the enforcement goal throughout the administrative order process, SCEMD will encourage the Respondent to enter into settlement discussions. Settlement discussions may occur at any time – prior to issuance of a Final Order; after issuance of a Final Order; during the period before and after the appeal is heard by a Hearing Officer.

B. Case Disposition Guidance.

1. Based on information provided by line staff, supervisors will review each case and provide recommendation(s) to the Environmental Compliance Division Chief regarding whether:

   a. The case should be referred to an outside agency for enforcement action, or;

   b. The case should be handled through the Administrative Enforcement Order (AEO) process. If the AEO process is recommended, the supervisor will also recommend an AEO option to be pursued.

2. The Chief of the Environmental Compliance Division (or designee) will review the recommendation(s) of the OWTS program supervisor and determine the proper disposition of the case and, if necessary, the appropriate AEO option to be utilized.

3. If the case alleges violation(s) that may involve fines and/or penalties that exceed $100,000, the Chief of the Environmental Compliance Division will confer with the Director of SCEMD prior to making a final decision regarding case disposition.

C. Administrative Enforcement Order Action Options. Depending on the circumstances of each case, this document provides multiple options for initiating, settling, and issuing administrative orders. Table 1 should be consulted when considering the appropriate option to use.

Table 1

AEO Process Alternative	When to Use	Disadvantages
"Show Cause" Letter	1. When a Respondent is not a repeat violator, does not have a history of noncompliance, and has not been recalcitrant or uncooperative. 2. The violations do not pose an imminent and substantial threat to public health or the environment and the violations have not resulted in a significant release to the environment.	Timeframes for filing a notice are not started and therefore a deadline has not been established.
"Consent Order"	1. The violations are less serious, simple and easily understood. 2. The compliance issues are straightforward and no compliance schedule is required. 3. The Respondent is not a recalcitrant or repeat offender. 4. The anticipated penalties are relatively small and prompt settlement is expected.	1. Provides no opportunity for discussion of complex compliance issues. 2. Difficult to use if case involves multi-agency enforcement.
"Draft Unilateral Order"	1. The violations are serious and/or complex. 2. The compliance issues are complex requiring a compliance schedule. 3. Prompt settlement is not expected.	The timeframes for filing a notice of defense are not triggered and thus, a deadline is not established.
"Stipulation and Order"	1. A "Draft Unilateral Order" has been issued and the Respondent has then requested settlement discussions. 2. Settlement discussions have led to an agreement with the Respondent on compliance timelines and penalties and the SCEMD does not wish to restate the violations cited in the "Draft Unilateral Order."	
"Final Unilateral Order"	1. The Respondent is a repeat violator or has a history of noncompliance. 2. The violations pose an imminent and substantial threat to public health or the environment; or 3. The violations have resulted in a significant environmental release.	Doesn't allow for consideration of the Respondent's response prior to formal public action.

1. "Show Cause" Letter Alternative. Under this alternative, Show Cause letter may be issued to the Respondent, notifying them that SCEMD is planning to take an AEO action and encouraging the Respondent to discuss settlement. The Show Cause letter is a public document and is not enforcement confidential. It does not constitute a formal enforcement action but establishes SCEMD's intent to pursue formal enforcement and encourages a consensual resolution.

   a. The goal of this process is to enter into settlement discussions between the Respondent and SCEMD and reach agreement on compliance, timeliness, and penalties; and formalize the agreement in a Final Order.

   b. When to use. The Show Cause alternative should be used when:

(1) The Respondent is not a repeat violator, and does not have a history of noncompliance.

(2) The Respondent has not been recalcitrant or uncooperative and the violations do not pose an imminent and substantial threat to public health or the environment; and the violations have not resulted in a significant release to the environment.

"Show Cause" Letter

Who	Steps/Tasks	Documentation
Line staff	1. Receives notification of the violation, or completes an inspection of the site and confirms violation.	Chronology
	2. Enforcement action should be considered if: a. Inspection/investigation revealed ongoing violation(s); b. Inspection/investigation revealed a pattern of repeat violations or recalcitrant behavior.	"Notice of Violation"
	3. Collect evidence (photos, samples, etc.) and present findings to ECD Supervisor.	
ECD Supervisor	4. Reviews evidence. If enforcement action is warranted, makes recommendations to Division Chief regarding: a. Appropriate case referral. b. If Administrative Enforcement is recommended, whether to utilize "Show Cause" letter alternative.	
Division Chief	5. Makes decision regarding the above issues. If "Show Cause" letter alternative is used, directs ECD Supervisor to prepare case documents.	
Line Staff	6. Prepares case file including draft "Show Cause" letter.	Draft "Show Cause" letter
ECD Supervisor and Division Chief	7. Reviews case file. a. Determines penalties and cost recovery amounts. b. Determines appropriate response deadline. Forwards to Admin Support	
Admin Support	8. Finalizes "Show Cause" letter and sends via "proof of service" certified mail.	"Show Cause" letter
	IF GREEN RETURN RECEIPT CARD IS RECEIVED, GO TO STEP 11. **IF DOCUMENTS ARE RETURNED AS UNDELIVERABLE, CONTINUE TO STEP 9.**	
Admin Support	9. Routes returned documents to ECD Supervisor for corrective action	
ECD Supervisor	10. Researches alternate addresses and re-submits to Admin Support. **RETURN TO STEP 8**	
Admin Support	11. Files green return receipt card with case file documents.	
ECD Supervisor	12. If Respondent requests, set up settlement discussions, ask them to provide information addressing alleged violations.	
	13. Discuss the parameters of a possible settlement with	

Who	Steps/Tasks	Documentation
	Division Chief prior to meeting.	
	14. If an agreement is reached, complete "Consent Order" (See Section V.C.2).	"Consent Order"
	15. If agreement is not reached, with concurrence of Division Chief, issue a "Unilateral Order" (See Section V.C.3).	"Unilateral Order"
Admin Support	16. If agreement is reached, collect and distribute penalty and other monies.	
ECD Supervisor	17. Direct re-inspection as needed to confirm compliance.	
	18. Send confirmation letter to Respondent indicating satisfactory compliance.	

2. Consent Order. Under this alternative, SCEMD may issue a Consent Order to the Respondent and request, in a cover letter, concurrence and signature to finalize the Order.

   a. This alternative provides a means of resolution on simple cases, where the Respondent is not likely to contest the Order.

   b. When to use. The Consent Order alternative should be used:

      (1) For less serious, simple, and easily understood violations.

      (2) When compliance issues are straightforward and a compliance schedule is not required.

      (3) When the Respondent is not a recalcitrant/repeat violator and the penalties are relatively small.

      (4) When prompt settlement is anticipated.

"Consent Order"

Who	Steps/Tasks	Documentation
Line Staff	1. Receives notification of the violation, or completes an inspection of the site and confirms violation.	Chronology
	2. Enforcement action should be considered due to: a. Inspection/investigation revealed ongoing violation(s); b. Inspection/investigation revealed a pattern of repeat violations or recalcitrant behavior.	"Notice of Violation"
	3. Collect evidence (photos, samples, etc.) and present findings to ECD Supervisor.	
ECD Supervisor	4. Reviews evidence. If enforcement action is warranted, makes recommendations to Division Chief regarding: a. Appropriate case referral. b. If Administrative Enforcement is recommended. whether to utilize "Consent Order"" alternative.	

Who	Steps/Tasks	Documentation
Division Chief	5. Makes decision regarding the above issues. If "Consent Order" alternative is used, directs ECD Supervisor to prepare case documents.	
Line Staff	6. Prepares case file including draft "Consent Order."	Draft "Consent Order"
ECD Supervisor and Division Chief	7. Reviews case file. a. Determines penalties and cost recovery amounts. b. Determines appropriate response deadline. Forwards to Admin Support	
Admin Support	8. Finalizes "Consent Order" and sends via "proof of service" certified mail.	"Consent Order"
	IF GREEN RETURN RECEIPT CARD IS RECEIVED, GO TO STEP 11. **IF DOCUMENTS ARE RETURNED AS UNDELIVERABLE, CONTINUE TO STEP 9.**	
Admin Support	9. Routes returned documents to ECD Supervisor for corrective action	
ECD Supervisor	10. Researches alternate addresses and re-submits to Admin Support. **RETURN TO STEP 8**	
Admin Support	11. Files green return receipt card with case file documents	
ECD Supervisor	12 If Respondent signs and returns "Consent Order" with payment, notifies Admin Support.	
Admin Support	13. If agreement is reached, collect and distribute penalty and other monies.	
ECD Supervisor	14. If agreement is not reached, with concurrence of Division Chief, issue a "Final Unilateral Order" (See Section V.C.5).	"Final Unilateral Order"
	15. Direct re-inspection as needed to confirm compliance.	
	16. Send confirmation letter to Respondent indicating satisfactory compliance.	

3. "Draft Unilateral Order." Under this alternative, SCEMD will send a "Draft Unilateral Order" to the Respondent with a cover letter. The cover letter will state why the Draft Order is being sent and provide the Respondent with a specified number of days to enter into settlement discussions to resolve the violations. The failure of the Respondent to respond to the letter will result in the issuance of a "Final Unilateral Order."

   a. The "Draft Unilateral Order" is substantially the same as a "Final Unilateral Order," <u>except that it has not been signed</u>. It is similar to the "Show Cause" alternative because it initiates settlement discussions with the Respondent.

   b. When to use. "Draft Unilateral Orders" are appropriate for the following circumstances:

      (1) Serious and/or complex violations.

(2) Complex compliance issues are present and a compliance schedule is required; and

(3) Prompt settlement is not anticipated.

"Draft Unilateral Order"

Who	Steps/Tasks	Documentation
Line Staff	1. Receives notification of the violation, or completes an inspection of the site and confirms violation.	Chronology
	2. Enforcement action should be considered due to: a. Inspection/investigation revealed ongoing violation(s); b. Inspection/investigation revealed a pattern of repeat violations or recalcitrant behavior.	"Notice of Violation"
	3. Collect evidence (photos, samples, etc.) and present findings to ECD Supervisor.	
ECD Supervisor	4. Reviews evidence. If enforcement action is warranted, makes recommendations to Division Chief regarding: a. Appropriate case referral. b. If Administrative Enforcement is recommended, whether to utilize the "Draft Unilateral Order" alternative.	
Division Chief	5. Makes decision regarding the above issues. If "Draft Unilateral Order" alternative is used, directs ECD Supervisor to prepare case documents.	
Line Staff	6. Prepares case file including "Draft Unilateral Order."	"Draft Unilateral Order"
ECD Supervisor and Division Chief	7. Reviews case file. a. Determines penalties and cost recovery amounts. b. Determines appropriate response deadline. Forwards to Admin Support	
Admin Support	8. Finalizes "Draft Unilateral Order" and sends via "proof of service" certified mail.	"Draft Unilateral Order"
	IF GREEN RETURN RECEIPT CARD IS RECEIVED, GO TO STEP 11. **IF DOCUMENTS ARE RETURNED AS UNDELIVERABLE, CONTINUE TO STEP 9.**	
Admin Support	9. Routes returned documents to ECD Supervisor for corrective action.	
ECD Supervisor	10. Researches alternate addresses and re-submits to Admin Support. **RETURN TO STEP 8**	
Admin Support	11. Files green return receipt card with case file documents.	
ECD Supervisor	12. If business wishes to settle and not have settlement discussions, issue "Final Unilateral Order" (See Section V.C.5) or "Stipulation and Order" (See Section V.C.4).	"Final Unilateral Order" or "Stipulation and Order"
	13. If the Respondent requests settlement discussions, ask	

Who	Steps/Tasks	Documentation
	them to provide evidence of why they are not in violation. Reconsider violation(s) based on their evidence.	
	14. If an agreement is reached after Step 13, complete a "Stipulation and Order."	"Stipulation and Order"
Admin Support	15. If agreement is reached, collect and distribute penalty and other monies. **GO TO STEP 17**	
ECD Supervisor	16. If agreement is not reached, with concurrence of Division Chief, issue a "Final Unilateral Order" (See Section V.C.5)	"Final Unilateral Order"
	17. Direct re-inspection as needed to confirm compliance.	
	18. Send confirmation letter to Respondent indicating satisfactory compliance.	

4. "Stipulation and Order." A "Stipulation and Order" is a mechanism that SCEMD should use if it comes to an agreement (a stipulation) with a Respondent after a "Draft Unilateral Order" has been issued. A "Consent Order" may also be used.

   a. A "Stipulation and Order" does not require a restatement of the violations identified in the "Draft Unilateral Order." For this reason, the use of a "Stipulation and Order" may be more expeditious than the use of a "Consent Order," in certain situations.

   b. When to use. The "Stipulation and Order" alternative may be appropriate under the following circumstances:

      (1) The "Draft Unilateral Order" has already been issued for the violation or violations in question and the business has requested settlement discussions after service of the "Draft Unilateral Order."

      (2) Settlement discussions have led to an agreement with the Respondent on compliance timelines and penalties and SCEMD wishes to avoid restating the violations cited in the "Draft Unilateral Order."

"Stipulation and Order"

Who	Steps/Tasks	Documentation
Line Staff	1. Receives notification of the violation, or completes an inspection of the site and confirms violation.	Chronology
	2. Enforcement action should be considered if: a. Inspection/investigation revealed ongoing violations; b. Inspection/investigation revealed a pattern of repeat violations or recalcitrant behavior.	"Notice of Violation"

Who	Steps/Tasks	Documentation
	3. Collect evidence and present findings to ECD Supervisor.	
ECD Supervisor	4. Reviews evidence. If enforcement action is warranted, makes recommendations to Division Chief regarding: a. Appropriate case referral. b. If Administrative Enforcement is recommended, "Draft Unilateral Order" alternative is used.	
Division Chief	5. Makes decision regarding the above issues. If "Draft Unilateral Order" alternative is used, directs ECD Supervisor to prepare case documents.	
Line Staff	6. Prepares case file including "Draft Unilateral Order."	"Draft Unilateral Order"
ECD Supervisors and Division Chief	7. Reviews case file. a. Determines penalties and cost recovery amounts. b. Determines appropriate response deadline. Forwards to Admin Support	
Admin Support	8. Finalizes "Draft Unilateral Order" and sends via "proof of service" certified mail.	"Draft Unilateral Order"
	IF GREEN RETURN RECEIPT CARD IS RECEIVED, GO TO STEP 11. **IF DOCUMENTS ARE RETURNED AS UNDELIVERABLE, CONTINUE TO STEP 9.**	
Admin Support	9. Routes returned documents to ECD Supervisor for corrective action	
ECD Supervisor	10. Researches alternate addresses and re-submits to Admin Support. **RETURN TO STEP 8**	
Admin Support	11. Files green return receipt card with case file documents.	
ECD Supervisor	12. If respondent wishes to settle and not have settlement discussions, issue "Final Unilateral Order" or "Stipulation and Order" (See Sections V.C.4 and V.C.5).	"Final Unilateral Order" or "Stipulation and Order"
ECD Supervisor	13. If the Respondent request settlement discussions, ask them to provide evidence of why they are not in violation. Reconsider violation(s) based on their evidence.	
	14. If an agreement is reached, complete a "Stipulation and Order."	"Stipulation and Order"
Admin Support	15. If agreement is reached, collect and distribute penalty and other monies. **GO TO STEP 17**	
ECD Supervisor	16. If agreement is not reached, with concurrence of Division Chief, issue a "Final Unilateral Order" (See Section V.C.5).	"Final Unilateral Order"
	17. Direct re-inspection as needed to confirm compliance.	
	18. Send confirmation letter to Respondent indicating satisfactory compliance.	

5. "Final Unilateral Order." Utilizing this alternative, SCEMD will issue a "Unilateral Order" to the Respondent, without prior discussion or negotiation. The "Show Cause" and "Draft Unilateral Order" alternatives anticipate the

possibility of the issuance of a “Final Unilateral Order” as an outcome if a settlement cannot be reached. This alternative utilizes the issuance of a “Unilateral Order” as the initial step. (“Unilateral Orders” are not final until the “Appeal Period” has passed.)

a. When to use. The “Final Unilateral Order” alternative is appropriate under the following circumstances:

(1) The Respondent is a repeat violator or has a history of noncompliance with the SCEMD;

(2) The Respondent has been recalcitrant or uncooperative;

(3) The violations pose an imminent and substantial threat to public health or the environment; or

(4) The violations have resulted in a significant release to the environment.

b. As previously noted, the “Final Unilateral Order” can be a necessary escalation when settlement is not achieved with the “Show Cause“ or “Draft Unilateral Order” alternatives.

c. Preparing a “Final Unilateral Order.” When preparing a “Final Unilateral Order,” all of the following documents must be included in the package served on the Respondent:

(1) A copy of the signed Order.

(2) All exhibits or attachments referred to in the Order.

(3) Statement to the Respondent.

(4) A copy of “proof of service”.

(5) Cover letter to Respondent.

(6) Two copies of Notice of Defense (NOD).

d. Serving the Order. The Order shall be served in person or by “proof of service” certified mail. If a Notice of Defense (NOD) is not received within 20 calendar days of service of the Order, the Order becomes final. A “proof of service” form must be completed and included in the package.

e. Amending a “Final Unilateral Order.” There are two situations in which a “Final Unilateral Order” may be amended:

(1) When the Respondent files a request that is agreed to by the SCEMD, SCEMD will make the appropriate amendments to the

Order and send a copy to the Respondent. This action does not constitute a new Order and does not create new appeal rights.

(2) When the SCEMD determines that a correction is necessary. The issuance of an amended "Final Unilateral Order" in this situation requires the re-issuance of the complete service package and may create new appeal rights.

f. Withdrawing an Order. If the SCEMD decides to withdraw a "Final Unilateral Order," a "Notice of Dismissal" must be completed with a letter, with return receipt requested, officially notifying the Respondent that the Order is being withdrawn.

"Final Unilateral Order"

Who	Steps/Tasks	Documentation
Line Staff	1. Receives notification of the violation, or completes an inspection of the site and confirms violation.	Chronology
	2. Enforcement action should be considered due to: a. Inspection/investigation revealed ongoing violations; b. Inspection/investigation revealed a pattern of repeat violations or recalcitrant behavior.	"Notice of Violation"
	3. Collect evidence (photos, samples, etc.) and present findings to ECD Supervisor.	
ECD Supervisor	4. Reviews evidence. If enforcement action is warranted, makes recommendations to Division Chief regarding: a. Appropriate case referral. b. If Administrative Enforcement is recommended, "Final Unilateral Order" alternative is used.	
Line Staff	5. Prepares case file including "Final Unilateral Order"	"Final Unilateral Order"
ECD Supervisor and Division Chief	6. Reviews case file. a. Determines penalties and cost recovery amounts. b. Determines appropriate response deadlines. Forwards to Admin Support	
Admin Support	7. Finalizes "Final Unilateral Order" and sends via "proof of service" certified mail.	"Final Unilateral Order"
	IF GREEN RETURN RECEIPT CARD IS RECEIVED, GO TO STEP 10. **IF DOCUMENTS ARE RETURNED AS UNDELIVERABLE, CONTINUE TO STEP 8**	
Admin Support	8. Routes returned documents to ECD Supervisor for corrective action.	
ECD Supervisor	9. Researches alternate addresses and re-submits to Admin Support. **GO TO STEP 7**	
Admin Support	10. Files green return receipt card with case file documents.	
THREE POSSIBLE OUTCOMES:		

Who	Steps/Tasks	Documentation
OUTCOME #1 Respondent submits a Notice of Defense (NOD) and requests a stay while settlement discussions occur.		
ECD Supervisor	11. If the Respondent requests settlement discussions, ask them to provide evidence of why they are not in violation. Reconsider violation(s) based on their evidence.	
	12. If an agreement is reached, complete a "Stipulation and Order."	"Stipulation and Order"
	13. If agreement is reached, collect and distribute penalty and other monies. **GO TO STEP 22**	
OUTCOME #2: Respondent submits a Notice of Defense (NOD) without intent of conducting settlement discussions or settlement discussions occur without reaching agreement.		
ECD Supervisor	14. Prepares cover letter for Division Chief's signature and attaches NOD received from Respondent that requests a Hearing. Once signed, entire package sent to Office of Administrative Hearing or as appropriate.	Hearing Request Letter
	15. Consults with County Counsel and prepares Hearing case file as needed.	Case file
	16. Notifies Respondent of the date, time and place of Hearing not later than 15 days prior to the scheduled Hearing date. Notification shall be made personally or via "proof of service" by certified mail.	Hearing Notification letter
Admin Support	17. Mails Hearing date notification to Respondent via "proof of service" by certified mail. Forwards green receipt card to ECD Supervisor.	Hearing Notification letter
ECD Supervisor	18. Upon notification of the decision, prepares letter for Division Chief's signature to Respondent stating SCEMD's intention to adopt the decision. **GO TO STEP 20**	Decision Notification letter to Respondent
OUTCOME #3: Respondent does not submit NOD.		
	a. Order becomes final after 15 days. **b. Rights to appeal are forfeited.** **c. Order is final and subject to enforcement.**	
ECD Supervisor	19. Prepares letter for Division Chief's signature to Respondent stating SCEMD's intention to enforce order.	Decision Notification letter to Respondent
ECD Supervisor	20. Collect and distribute penalty and other monies.	
	21. Assigns Line Staff to perform follow-up inspection as necessary to verify compliance.	Inspection report
	22. Notifies Admin Support when case is closed and documents ready to be filed and archived. **END**	Case file

D. <u>Settlement Discussions/Settlement Agreement</u>

1. Settlement discussions between the SCEMD and the Respondent may occur at any time in the process. Time frames for requesting a hearing may be stayed by agreement between the Respondent and the SCEMD during the course of settlement discussions.

2. The SCEMD will set a time and place for any settlement discussion meeting. If the SCEMD and the Respondent are able to reach a settlement, the SCEMD will issue a "Consent Order." At a minimum, a "Consent Order" shall mandate:

   a. Compliance with applicable sections of Federal, State and Local statutes, regulations and/or ordinances;

   b. Payment of fees and/or costs due to the SCEMD; and

   c. Payment to the SCEMD of any penalty(s) assessed.

3. Failure to comply with any term of the Settlement Agreement shall void the Agreement and the SCEMD may proceed with any and all actions lawfully available. However, so long as the Respondent well and faithfully performs under the Agreement, the SCEMD shall suspend any enforcement actions associated with the subject violation. Where the Respondent has waived the right to a hearing or where the SCEMD and the Respondent have entered into a settlement agreement, the order shall not be subject to review by any court or agency.

VI. Re-inspections

A. Definition: A re-inspection is defined as any field inspection conducted outside of the standard frequency.

B. General: Re-inspections will be conducted at the expense of the affected entity when one or more of the following conditions are present:

1. To confirm that necessary actions have been completed so as to achieve compliance after any significant or major violation has been documented.

2. The affected entity has been placed in a "monitor" status. An entity that has repeated significant violations may be placed in a "monitor" status if there is reasonable doubt that the entity will remain in compliance with applicable sections of statutes, regulations or local ordinances.

3. To confirm that necessary action(s) have been completed so as to achieve compliance after numerous minor violations or violations that have been determined not to not pose a serious threat to human health and the environment have been documented and no proof of corrective action or compliance has been submitted to SCEMD.

VII. Revocation, Modification or Suspension of Permit

A. Grounds for Revocation, Modification or Suspension of Permit: Any permit issued pursuant to Sacramento County Code, Chapter 6.32 (Onsite Management of Wastewater), may be revoked, modified or suspended during its term, upon one or more of the following grounds:

1. Violation of any of the terms or conditions of the permit, including nonpayment of fees.

2. Obtaining the permit by misrepresentation or intentional failure to fully disclose all relevant facts.

3. Violation of any provision of Sacramento County Code, Chapter 6.32 (Onsite Management of Wastewater).

B. Method: SCEMD may revoke, modify, or suspend a permit by issuing a written notice (Notice) stating the reasons therefore, and serving same together with a copy of the Sacramento County Code, Chapter 6.32, and a Notice of Defense form upon the holder of the permit.

1. The revocation, modification or suspension shall become effective fifteen (15) calendar days after service of the Notice, unless the holder of the permit enters into a settlement agreement with the SCEMD or appeals the Notice in accordance with Section IX of this policy.

2. If such an appeal is filed within the stated deadline, the revocation, modification or suspension shall not become effective until a final decision on the appeal is issued.

3. Delivery shall be deemed complete upon either personal delivery to the permit holder or through “proof of service” by certified mail.

VIII. Cease and Desist Orders

A. Issuance: SCEMD may issue a Cease and Desist Order (Order). The Order may direct any person responsible for any violation of the requirements listed in Sacramento County Code, Chapter 6.32 (Onsite Management of Wastewater), to take any of the following actions:

1. Immediately discontinue any action that results in a violation of the requirements listed in Section I of this policy.

2. Cleanup or remediate the area or media affected by the violation.

B. Requirements:

1. The Order shall state that the recipient has a right to appeal the matter as set forth in Section IX of this policy.

2. The Order shall state that the recipient may be liable for all enforcement costs incurred by the County in correcting the violation.

3. Delivery shall be deemed complete upon either personal delivery to the recipient or through “proof of service” by certified mail.

IX. Administrative Hearing and Appeal Process

A. Hearing Procedures

1. Sacramento County Code, Chapter 6.32, Section 6.32.550(A) allows the Respondent to request a hearing on the Order within 15 days after service of the Order or Notice. This timeframe cannot be extended.

2. A request for a hearing is referred to as a “Notice of Defense” (NOD). The NOD must be filed with SCEMD within 15 days of service. It is acceptable if the NOD is postmarked within that 15-day period. If the Respondent does not submit a NOD within the 15 days after service, the Order or Notice becomes final.

3. The hearing officer shall be one or more persons assigned the responsibility of conducting a hearing by the Board of Supervisors’ approved contract with the McGeorge School of Law, or an administrative law judge assigned to the State of California Office of Administrative Hearings.

4. The hearing shall be conducted in accordance with Chapter 4.5 of Part 1 of Division 3 of Title 2 of the Government Code.

5. If the SCEMD receives a NOD within the 15 calendar-day time period, it must immediately transmit the NOD to the Sacramento County Counsel who will arrange for the hearing. A cover letter must be sent to accompany the NOD.

6. The Respondent must be notified of the hearing date.

7. The hearing must commence within 90 calendar days of receipt of the NOD. This 90 day deadline may be extended upon mutual agreement.

8. The SCEMD will be represented by County Counsel during the hearing process.

9. The SCEMD will remain in contact with the Respondent and offer the opportunity to settle the case prior to the hearing date.

10. After the hearing, a proposed decision should be issued to the SCEMD within thirty (30) calendar days. To adopt the proposed decision, the SCEMD will serve the Respondent with a letter, stating that it is adopting the proposed decision. Such Orders are effective and final upon issuance, and the Respondent has 30 calendar days to make any stipulated payment. A copy of the Order must be served by personal service or by “proof of service” certified mail.

B. Civil Appeal of the "Final Order."

1. Within thirty (30) calendar days after service of a copy of a Decision Order issued by the SCEMD, the Respondent may file with the Superior Court, a Petition for Writ of Mandate for Review of the Decision Order. The filing of such Petition for Writ of Mandate does not stay any penalties assessed.

2. Any Respondent that fails to file the Petition within this thirty (30) calendar day period may not challenge the "Final Unilateral Order" *[Government Code §11523]*.

X. Administrative Penalties

A. General Policy

1. The following will be considered when calculating the amount of an administrative penalty:

a. The nature, circumstances, extent, and actual or potential gravity of the violation.

b. The violator's efforts to prevent, abate, or clean up conditions posing a threat to public health or the environment.

c. The violator's ability to pay.

d. The deterrent effect of the penalty.

B. Steps in Determining Penalties

1. Initial Penalty: SCEMD will determine an initial penalty for each violation by considering the actual and potential harm and the extent of the deviation from OWTS ordinance requirements.

a. Assigning degrees of actual and potential harm.

(1) Major – the nature of the violation has the potential to present a major threat to human health or safety or the environment and the circumstances of the violation indicate a high potential for harm.

(2) Moderate – the nature of the violation does not present a major threat to human health or safety or the environment and the likelihood of harm from noncompliance is not high.

(3) Minimal – the overall threat to human health or the environment is low.

b. Assigning degrees of extent of the deviation.

(1) Major – the act deviates from the requirement to such an extent that the requirement is completely ignored or the function of the requirement is rendered ineffective because some of its provisions are not complied with.

(2) Moderate – the act deviates from the requirement but functions to some extent.

(3) Minimal – the act deviates from the requirement but functions nearly as intended.

c. For requirements with several components, consider the extent of the violation in terms of the most significant component.

2. Adjusted Initial Penalty

a. The initial penalty may be adjusted based on the violator's intent in committing the infraction. The following factors will be considered as a basis for adjustment.

ADJUSTMENT FACTOR	CIRCUMSTANCES
Downward adjustment of 100%	Violation was completely beyond the control of the violator.
Downward adjustment of 0 to 50%	Violation occurred even though good faith efforts to comply with regulations were made.
No adjustment	Violation indicated neither good faith efforts nor intentional failure to comply.
Upward adjustment of 50 to 100%	Violation was the result of intentional failure to comply.

b. Economic Benefit Adjustment: The initial penalty may be increased if, in the opinion of the SCEMD, the violator realized significant economic benefit as a result of the failure to comply.

(1) The adjustment to the initial penalty cannot exceed the statutory maximum.

(2) Economic benefits to consider include: avoided or delayed costs, or increased profits.

3. Combining Multiple Violations: A single penalty may be assessed for multiple violations for the following situations:

a. The Respondent has violated the same requirement in different locations or units within a site.

b. The Respondent has violated the same requirement on different days. This would not be appropriate if the Respondent has been notified of the violation and has had sufficient time to correct the violation.

4. Multi-day Violations: For days following the first day of violation, the multi-day component of the penalty may be calculated by determining 2% of the adjusted initial penalty times the number of days after the initial day.

5. Base Penalty: The base penalty for a one day violation occurrence is the adjusted initial penalty. The base penalty for multi-day violations is the adjusted initial penalty for the first day of the violation plus the penalty for the additional days of the violation.

6. Total Base Penalty: The total base penalty is the sum of all base penalties for all violations incurred at a given site.

7. To determine the Final Penalty, adjustments to the total base penalty may be made based on the following factors.

a. Adjustment factors for cooperation.

Degree of Cooperation/Effort	Adjustment Factor	Circumstance
Extraordinary	Downward adjustment of up to 25 %	Violator exceeded minimum requirements in returning to compliance or returned to compliance faster than requested.
Good Faith	No adjustment	Violator demonstrated a cooperative effort.
Recalcitrance	Upward adjustment of up to 25 %	Violator failed to cooperate, delayed compliance, created unnecessary obstacles to achieving compliance, or the compliance submittal failed to meet requirements.
Refusal	Upward adjustment of 50 to 100 %	Violator intentionally failed to return to compliance with regulations or to allow cleanup operations to take place. This does not include refusal to allow inspection.

b. Adjustment to create a preventive or deterrent effect. The total base penalty may be adjusted upward or downward to ensure that the penalty is sufficient to provide a deterrent effect on both the violator and/or the regulated community as a whole.

c. Adjustment for compliance history. The total base penalty may be adjusted upward or downward based on the Respondent's compliance history.

(1) General considerations.

(a) Previous violations at the site should receive more weight than previous violations at another site owned or operated by the same person.

(b) Recent violations should receive more weight than older violations.

(c) The same or substantially similar previous violations should receive more weight than previous unrelated violations.

(2) Specific guidance.

(a) Downward adjustments of up to 5% for each previous consecutive inspection with no violations can be made up to a maximum of 10%.

(b) Upward adjustments of up to 100% can be made if a Respondent has a consistent history of noncompliance over the past five (5) years.

d. Ability to pay adjustments. No adjustments for ability to pay may be made if the penalty has been adjusted upward because of failure to cooperate or because of the Respondent's poor compliance history. In light of these exceptions, ability to pay adjustments to the total base penalty may be made if either:

(1) Immediate payment of the final penalty would cause financial hardship. In this case, consideration may be given to payments extended over a certain term.

(2) Extending the penalty over a period of time would cause extreme financial hardship. In this case, consideration may be given to reduce the total base penalty.

8. FINAL PENALTY: The final penalty consists of the total base penalty with all adjustments made.

C. Initial Penalties

1. For violations of Sacramento County Code, Chapter 6.32, the violator shall be liable for penalties as provided in Section 6.32.530.

2. The total penalty calculated for any single violation shall not exceed the maximum penalty specified in Section 6.32.530 which is $1,000 per day of violation.

3. The following matrix will be used to determine the initial penalty for an OWTS ordinance violation:

INITIAL PENALTY MATRIX – ONSITE MANAGEMENT OF WASTEWATER

AUTHORITY: SACRAMENTO COUNTY CODE, CHAPTER 6.32, SECTION 6.32.550	ACTUAL OR POTENTIAL HARM ▼		
EXTENT OF DEVIATION ▼	**Major**	**Moderate**	**Minor**
Major	Maximum: **$1,000**	Maximum: **$600**	Maximum: **$400**
	Average: **$800**	Average: **$500**	Average: **$300**
	Minimum: **$600**	Minimum: **$400**	Minimum: **$200**
Moderate	Maximum: **$600**	Maximum: **$400**	Maximum: **$200**
	Average: **$500**	Average: **$300**	Average: **$150**
	Minimum: **$400**	Minimum: **$200**	Minimum: **$100**
Minor	Maximum: **$400**	Maximum: **$200**	Maximum: **$100**
	Average: **$300**	Average: **$150**	Average: **$50**
	Minimum: **$200**	Minimum: **$100**	Minimum: **$0**

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COUNTY OF SACRAMENTO ENVIRONMENTAL MANAGEMENT DEPARTMENT		
ENVIRONMENTAL COMPLIANCE DIVISION POLICY		
SUPERSEDES: 2005	APPROVED BY: Elise Rothschild Chief, Environmental Compliance Division	EFFECTIVE DATE 12/12/2013

DISPOSAL OF LIQUID WASTE OTHER THAN DOMESTIC SEWAGE

Background	Septic systems are designed to function by accepting only domestic sewage. When issuing permits for commercial or industrial buildings (i.e., shops, offices, warehouses, etc.)
Note information	Make sure this fact is noted on the area of the permit marked “other information.” High-strength wastewater from commercial food service building cannot exceed 900 mg/L Biological Oxygen Demand (BOD) and must have a properly sized and functioning oil/grease interceptor.
Operating Permit	Any exceeding commercial food service that has a premature failure, one within twelve years of use must obtain and Operating Permit pursuant to SCC 6.32.240 and monitor for BOD.
Refer proposals	When proposals are made for disposing wastes other than domestic sewage (i.e., storm water, process water, car wash, water, grease site and sumps, solvents, etc.), refer the applicant to the Central Valley Regional Water Quality Control Board (CVRWQCB), 11020 Sun Center Drive, #200 Rancho Cordova, CA 464-3291.
Waste Discharge Requirements	If CVRWQCB issue Waste Discharge Requirements (WDR) those supersede local requirements.

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COUNTY OF SACRAMENTO ENVIRONMENTAL MANAGEMENT DEPARTMENT		
ENVIRONMENTAL COMPLIANCE DIVISION POLICY		
SUPERSEDES: 2005	APPROVED BY: Elise Rothschild Chief, Environmental Compliance Division	UPDATED 12/12/2013

GUIDELINES FOR WATER WELL/SEEPAGE PIT ENCROACHMENT

Background

The minimum distance between a water well and a seepage pit is 150 feet.

Reduced distance

There may be instances where this separation may be reduced, such as an existing older well, or lack of repair area for an existing septic system.

Test drill for soil depth

In cases where the 150 feet separation must be encroached upon, the following guidelines for separation from well to pit may be used. A test drill must be conducted to determine if there is suitable soil depth. The total cumulative soil depth required is 10 feet. This may include any combination of pit numbers. If there is only 5 feet of suitable soil depth, the design shall be a minimum of 2 pits per bedroom at the given depth. Pits less than 25 feet in depth shall be a minimum of 4 feet in diameter.

Separation guidelines

SEEPAGE PIT DEPTH	MINIMUM DISTANCE TO WELL
40 feet	150 feet
35 feet	150 feet
30 feet	134 feet
25 feet	117 feet
20 feet	100 feet

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COUNTY OF SACRAMENTO ENVIRONMENTAL MANAGEMENT DEPARTMENT		
ENVIRONMENTAL COMPLIANCE DIVISION POLICY		
SUPERSEDES: 2005	APPROVED BY: Elise Rothschild Chief, Environmental Compliance Division	UPDATED 12/12/2013

GRAYWATER

Untreated wastewater	Interest is developing regarding the reuse of untreated household wastewater from such sources as sinks, showers, bathtubs and laundry washing machines for irrigation of lawns, gardens, and trees. The untreated wastewater from these sources is sometimes referred to as “graywater”.
Studies and the public health	Studies by the State of California Department of Health Services have indicated that infective quantities of bacteria, viruses, and other organisms are present in “graywater”. Furthermore, studies have shown these microorganisms can survive for a considerable length of time on vegetation and soil. Contaminated soil can adhere to a finger or hand, thereby exposing a person to potential enteric disease. In view of the history and potential severity of enteric disease, increased exposure to pathogens by the use of graywater poses a serious public health threat.
State law on reuse	Current state law (The Uniform Plumbing Code Appendix G) contains very specific rules regarding the reuse of “graywater”. These rules allow the reuse of “graywater” and should be consulted if the question arises.
Authority for setting designs	The Local Building Inspection Division has the lead role in setting designs for “graywater reuse”.

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COUNTY OF SACRAMENTO ENVIRONMENTAL MANAGEMENT DEPARTMENT		
ENVIRONMENTAL COMPLIANCE DIVISION POLICY		
SUPERSEDES: 6/28/2007	APPROVED BY: Elise Rothschild Chief, Environmental Compliance Division	EFFECTIVE DATE 12/12/2013

SEPTIC SYSTEM ON SMALLER PARCELS
DUAL USE OF LEACHING FIELDS

Construction design

On parcels using both water wells and septic systems that are less than or equal to (≤) ONE ACRE OR PARCELS WITH LIMITED AREA FOR SEPTIC SYSTEM INSTALLATION, THE Department shall require the installation of two (2) times the initial design leaching capacity for the facility being constructed. The second leaching system shall be separated from the initial by use of a valve and is intended to be used intermittently with the initial system.

Permit conditions

There should be a condition on the permit and the property owner should be advised to routinely change the flow from the tank from one leaching field to the other. It is suggested that this occur on a yearly schedule.

Parcels using septic systems only

On parcels using septic systems only (i.e., connected to a public water system), this policy shall apply to parcels less than or equal to (≤) one half (1/2) acre in size.

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SACRAMENTO COUNTY

LOCAL AREA MANAGEMENT PROGRAM (LAMP)

PART FIVE

OTHER

Part Five of this LAMP addresses aspects of the *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* that are not addressed in Part One (Responsibilities and Duties); Part Two (SCC 6.32); Part Three (On-Site Wastewater Guidance Manual); or Part Four (Policies) of this LAMP. Note, that in addition to miscellaneous requirements discussed in the body of the Policy, each of the Policy elements described in "Tier 2 – Local Agency OWTS Management Program" but not addressed in Parts One, Two, Three or Four of this LAMP is also discussed below. Each program element is presented below in the order in which it appears in the Policy, i.e. the numbered sections below correspond to the numbered sections of the Policy.

9.2.3 Variance considerations are discussed in Parts Two, Three, and Four of this LAMP. Variances are not allowed by this LAMP for the elements discussed in sections 9.4.1 through 9.4.9 of the Policy.

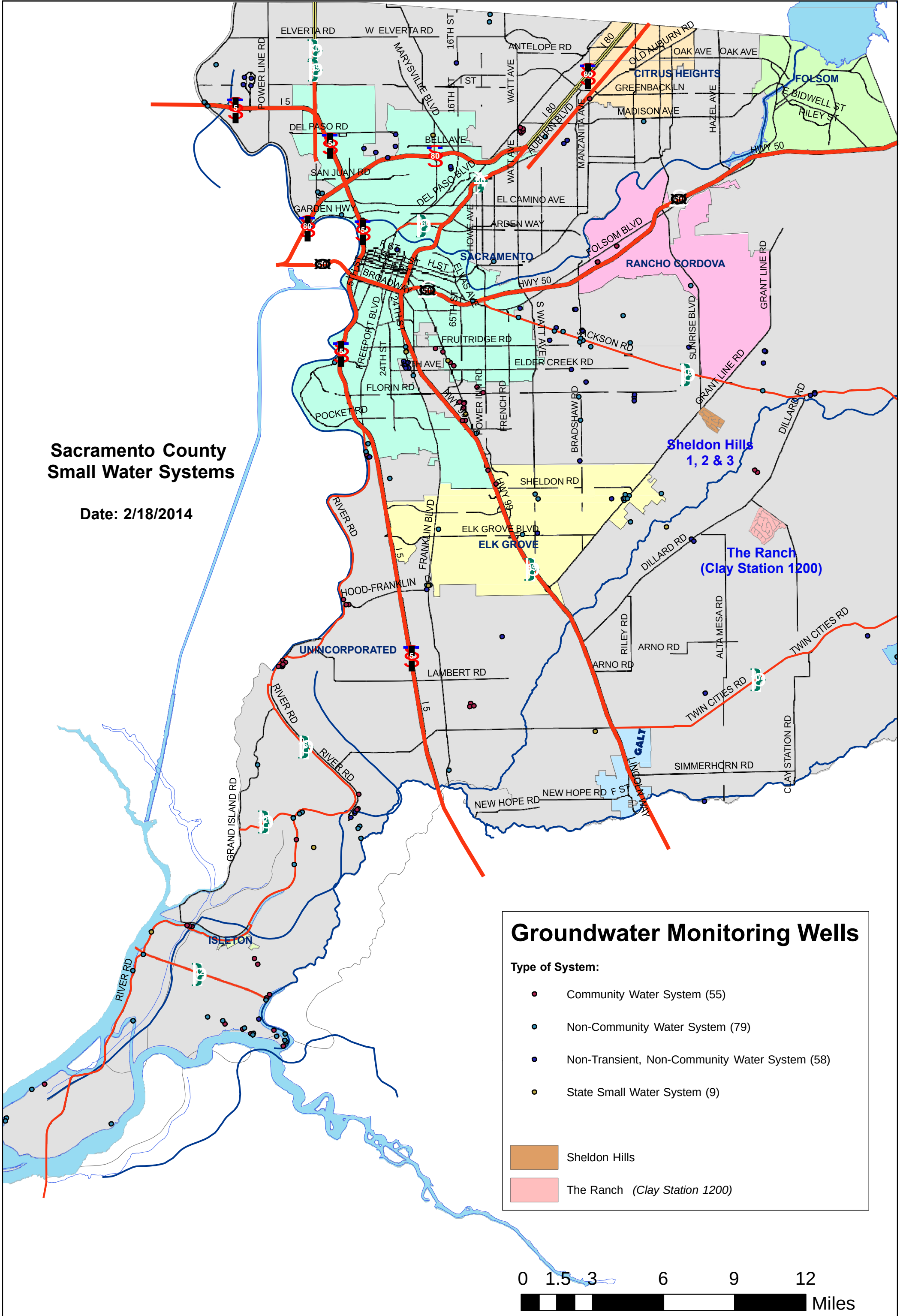
9.2.6 Adequate capacity for disposal of all septage pumped within Sacramento County is available at the Sacramento Regional Wastewater Treatment Plant (SRWTP) located at 8521 Laguna Station Road, Elk Grove, California. The volume of septage pumped each year in Sacramento County is variable and cannot be projected with certainty. However, for comparison, according to the SRWTP, the SRWTP received 4,866,391 gallons of septage in fiscal year (FY) 2010-2011, 4,255,221 gallons in FY 2011-2012, and 5,049,775 gallons in FY 2012-2013. EMD estimates that there are approximately 20,000 existing OWTS in Sacramento County. The septage volume disposed at the plant thus equates to an average of approximately 236 gallons per tank per year. The general recommendation for tank pumping is approximately once every five years. Therefore, assuming tanks are pumped at the recommended interval, each tank in the County produces about 1,125 gallons of septage per 5-year event. This indicates in a broad manner that septic systems in Sacramento County are functioning properly and that the failure rate is low.

9.2.8 At this time EMD does not anticipate developing or implementing a Regional Salt and Nutrient Management Plan. EMD may consider collaborating with regional efforts in this regard if asked to participate in the future.

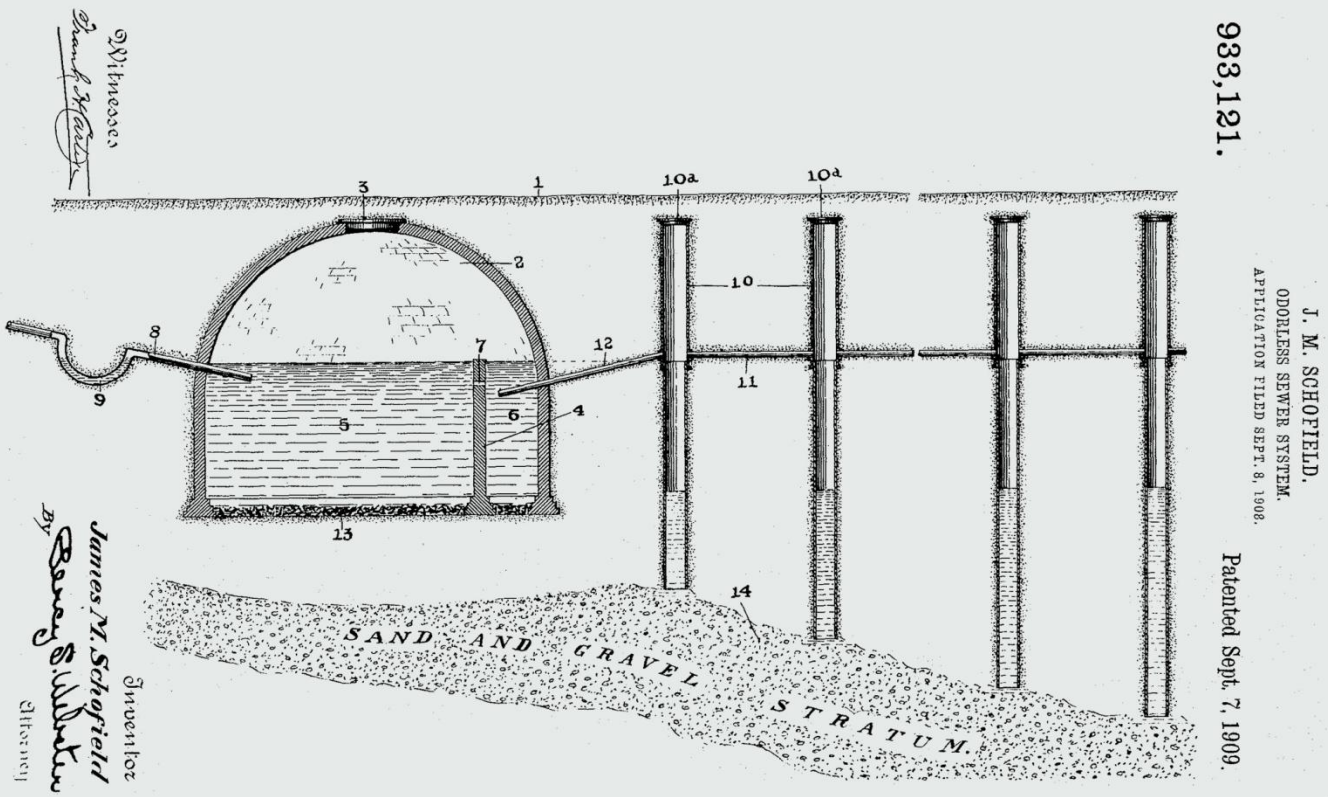
9.2.9 Regarding coordinating with watershed management groups, EMD representatives periodically attend meetings of the Regional Water Authority, the Sacramento Groundwater Authority, and the California Groundwater Association.

Part 5 Other

It is EMD's opinion that when considered together, current requirements for OWTS and well construction (as outlined in SCC 6.32 [liquid waste] and 6.28 [wells and pumps]) are adequate to protect groundwater. A vast majority of OWTS that do not meet 200 foot setback requirements to public wells are associated with EMD's Small Water System (SWS) program. SWS wells are required to be tested for nitrates, pathogens, and other chemical constituents on a schedule determined by California Title 22 regulations. To date SWS wells have not shown impacts by nitrate, nitrite, or pathogens that may be related to an OWTS. For new OWTS on existing parcels that cannot meet public water supply well or surface water intake setbacks as outlined in Policy section 9.4.10, EMD will require supplemental treatment as described in Policy sections 10.9 and 10.10.



Appendix A: Geographic Distribution of Monitoring



OWTS POLICY

Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems

June 19, 2012

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD

REGIONAL WATER QUALITY CONTROL BOARDS

State of California
Edmund G. Brown Jr., Governor

California Environmental Protection Agency
Matthew Rodriquez, Secretary

State Water Resources Control Board
http://www.waterboards.ca.gov

Charles R. Hoppin, Chair
Frances Spivy-Weber, Vice Chair
Tam M. Doduc, Member
Steven Moore, Member

Thomas Howard, Executive Director
Jonathan Bishop, Chief Deputy Director
Caren Trgovcich, Chief Deputy Director

Adopted by the State Water Resources Control Board on June 19, 2012
Approved by the Office of Administrative Law on November 13, 2012
Effective Date of the Policy: May 13, 2013

Preamble – Purpose and Scope – Structure of the Policy

Preamble

Onsite wastewater treatment systems (OWTS) are useful and necessary structures that allow habitation at locations that are removed from centralized wastewater treatment systems. When properly sited, designed, operated, and maintained, OWTS treat domestic wastewater to reduce its polluting impact on the environment and most importantly protect public health. Estimates for the number of installations of OWTS in California at the time of this Policy are that more than 1.2 million systems are installed and operating. The vast majority of these are functioning in a satisfactory manner and meeting their intended purpose.

However there have been occasions in California where OWTS for a varied list of reasons have not satisfactorily protected either water quality or public health. Some instances of these failures are related to the OWTS not being able to adequately treat and dispose of waste as a result of poor design or improper site conditions. Others have occurred where the systems are operating as designed but their densities are such that the combined effluent resulting from multiple systems is more than can be assimilated into the environment. From these failures we must learn how to improve our usage of OWTS and prevent such failures from happening again.

As California's population continues to grow, and we see both increased rural housing densities and the building of residences and other structures in more varied terrain than we ever have before, we increase the risks of causing environmental damage and creating public health risks from the use of OWTS. What may have been effective in the past may not continue to be as conditions and circumstances surrounding particular locations change. So necessarily more scrutiny of our installation of OWTS is demanded of all those involved, while maintaining an appropriate balance of only the necessary requirements so that the use of OWTS remains viable.

Purpose and Scope of the Policy

The purpose of this Policy is to allow the continued use of OWTS, while protecting water quality and public health. This Policy recognizes that responsible local agencies can provide the most effective means to manage OWTS on a routine basis. Therefore as an important element, it is the intent of this policy to efficiently utilize and improve upon where necessary existing local programs through coordination between the State and local agencies. To accomplish this purpose, this Policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements and sets the level of performance and protection expected from OWTS. In particular, the Policy requires actions for water bodies specifically identified as part this Policy where OWTS contribute to water quality degradation that adversely affect beneficial uses.

This Policy only authorizes subsurface disposal of domestic strength, and in limited instances high strength, wastewater and establishes minimum requirements for the permitting, monitoring, and operation of OWTS for protecting beneficial uses of waters

of the State and preventing or correcting conditions of pollution and nuisance. And finally, this Policy also conditionally waives the requirement for owners of OWTS to apply for and receive Waste Discharge Requirements in order to operate their systems when they meet the conditions set forth in the Policy. Nothing in this Policy supersedes or requires modification of Total Maximum Daily Loads or Basin Plan prohibitions of discharges from OWTS.

This Policy also applies to OWTS on federal, state, and Tribal lands to the extent authorized by law or agreement.

Structure of the Policy

This Policy is structured into ten major parts:

Definitions
Definitions for all the major terms used in this Policy are provided within this part and wherever used in the Policy the definition given here overrides any other possible definition.
[Section 1]

Responsibilities and Duties
Implementation of this Policy involves individual OWTS owners; local agencies, be they counties, cities, or any other subdivision of state government with permitting powers over OWTS; Regional Water Quality Control Boards; and the State Water Resources Control Board.
[Sections 2, 3, 4, and 5]

Tier 0 – Existing OWTS
Existing OWTS that are properly functioning, and do not meet the conditions of failing systems or otherwise require corrective action (for example, to prevent groundwater impairment) as specifically described in Tier 4, and are not determined to be contributing to an impairment of surface water as specifically described in Tier 3, are automatically included in Tier 0.
[Section 6]

Tier 1 – Low-Risk New or Replacement OWTS
New or replacement OWTS that meet low risk siting and design requirements as specified in Tier 1, where there is not an approved Local Agency Management Program per Tier 2.
[Sections 7 and 8]

Tier 2 – Local Agency Management Program for New or Replacement OWTS
California is well known for its extreme range of geological and climatic conditions. As such, the establishment of a single set of criteria for OWTS would either be too restrictive so as to protect for the most sensitive case, or would have broad allowances that would not be protective enough under some circumstances. To accommodate this

extreme variance, local agencies may submit management programs ("Local Agency Management Programs") for approval, and upon approval then manage the installation of new and replacement OWTS under that program.

Local Agency Management Programs approved under Tier 2 provide an alternate method from Tier 1 programs to achieve the same policy purpose, which is to protect water quality and public health. In order to address local conditions, Local Agency Management Programs may include standards that differ from the Tier 1 requirements for new and replacement OWTS contained in Sections 7 and 8. As examples, a Local Agency Management Program may authorize different soil characteristics, usage of seepage pits, and different densities for new developments. Once the Local Agency Management Program is approved, new and replacement OWTS that are included within the Local Agency Management Program may be approved by the Local Agency. A Local Agency, at its discretion, may include Tier 1 standards within its Tier 2 Local Agency Management Program for some or all of its jurisdiction. However, once a Local Agency Management Program is approved, it shall supersede Tier 1 and all future OWTS decisions will be governed by the Tier 2 Local Agency Management Program until it is modified, withdrawn, or revoked.
[Section 9]

Tier 3 – Impaired Areas
Existing, new, and replacement OWTS that are near impaired water bodies may be addressed by a TMDL and its implementation program, or special provisions contained in a Local Agency Management Program. If there is no TMDL or special provisions, new or replacement OWTS within 600 feet of impaired water bodies listed in Attachment 2 must meet the specific requirements of Tier 3.
[Section 10]

Tier 4 – OWTS Requiring Corrective Action
OWTS that require corrective action or are either presently failing or fail at any time while this Policy is in effect are automatically included in Tier 4 and must follow the requirements as specified.
[Section 11]

Conditional Waiver of Waste Discharge Requirements
The requirement to submit a report of waste discharge for discharges from OWTS that are in conformance with this policy is waived.
[Section 12]

Effective Date
When this Policy becomes effective.
[Section 13]

Financial Assistance
Procedures for local agencies to apply for funds to establish low interest loan programs for the assistance of OWTS owners in meeting the requirements of this Policy.
[Section 14]

Attachment 1
AB 885 Regulatory Program Timelines.

Attachment 2

Tables 4 and 5 specifically identify those impaired water bodies that have Tier 3 requirements and must have a completed TMDL by the date specified.

Attachment 3

Table 6 shows where one Regional Water Board has been designated to review and, if appropriate, approve new Local Agency Management Plans for a local agency that is within multiple Regional Water Boards' jurisdiction.

What Tier Applies to my OWTS?

Existing OWTS that conform to the requirements for Tier 0 will remain in Tier 0 as long as they continue to meet those requirements. An existing OWTS will temporarily move from Tier 0 to Tier 4 if it is determined that corrective action is needed. The existing OWTS will return to Tier 0 once the corrective action is completed if the repair does not qualify as major repair under Tier 4. Any major repairs conducted as corrective action must comply with Tier 1 requirements or Tier 2 requirements, whichever are in effect for that local area. An existing OWTS will move from Tier 0 to Tier 3 if it is adjacent to an impaired water body listed on Attachment 2, or is covered by a TMDL implementation plan.

In areas with no approved Local Agency Management Plan, new and replacement OWTS that conform to the requirements of Tier 1 will remain in Tier 1 as long as they continue to meet those requirements. A new or replacement OWTS will temporarily move from Tier 1 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 1 once the corrective action is completed. A new or replacement OWTS will move from Tier 1 to Tier 3 if it is adjacent to an impaired water body, or is covered by a TMDL implementation plan.

In areas with an approved Local Agency Management Plan, new and replacement OWTS that conform to the requirements of the Tier 2 Local Agency Management Plan will remain in Tier 2 as long as they continue to meet those requirements. A new or replacement OWTS will temporarily move from Tier 2 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 2 once the corrective action is completed. A new or replacement OWTS will move from Tier 2 to Tier 3 if it is adjacent to an impaired water body, or is covered by a TMDL implementation plan, or is covered by special provisions for impaired water bodies contained in a Local Agency Management Program.

Existing, new, and replacement OWTS in specified areas adjacent to water bodies that are identified by the State Water Board as impaired for pathogens or nitrogen and listed in Attachment 2 are in Tier 3. Existing, new, and replacement OWTS covered by a TMDL implementation plan, or covered by special provisions for impaired water bodies contained in a Local Agency Management Program are also in Tier 3. These OWTS will temporarily move from Tier 3 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 3 once the corrective action is completed.

Existing, new, and replacement OWTS that do not conform with the requirements to receive coverage under any of the Tiers (e.g., existing OWTS with a projected flow of more than 10,000 gpd) do not qualify for this Policy's conditional waiver of waste discharge requirements, and will be regulated separately by the applicable Regional Water Board.

Definitions

1.0 Definitions. The following definitions apply to this Policy:

"303 (d) list" means the same as "**Impaired Water Bodies.**"

"At-grade system" means an OWTS dispersal system with a discharge point located at the preconstruction grade (ground surface elevation). The discharge from an at-grade system is always subsurface.

"Average annual rainfall" means the average of the annual amount of precipitation for a location over a year as measured by the nearest National Weather Service station for the preceding three decades. For example the data set used to make a determination in 2012 would be the data from 1981 to 2010.

"Basin Plan" means the same as "water quality control plan" as defined in Division 7 (commencing with Section 13000) of the Water Code. Basin Plans are adopted by each Regional Water Board, approved by the State Water Board and the Office of Administrative Law, and identify surface water and groundwater bodies within each Region's boundaries and establish, for each, its respective beneficial uses and water quality objectives. Copies are available from the Regional Water Boards, electronically at each Regional Water Boards website, or at the State Water Board's *Plans and Policies* web page (http://www.waterboards.ca.gov/plans_policies/).

"Bedrock" means the rock, usually solid, that underlies soil or other unconsolidated, surficial material.

"CEDEN" means California Environmental Data Exchange Network and information about it is available at the State Water Boards website or http://www.ceden.org/index.shtml.

"Cesspool" means an excavation in the ground receiving domestic wastewater, designed to retain the organic matter and solids, while allowing the liquids to seep into the soil. Cesspools differ from seepage pits because cesspool systems do not have septic tanks and are not authorized under this Policy. The term cesspool does not include pit-privies and out-houses which are not regulated under this Policy.

"Clay" means a soil particle; the term also refers to a type of soil texture. As a soil particle, clay consists of individual rock or mineral particles in soils having diameters <0.002 mm. As a soil texture, clay is the soil material that is comprised of 40 percent or more clay particles, not more than 45 percent sand and not more than 40 percent silt particles using the USDA soil classification system.

"Cobbles" means rock fragments 76 mm or larger using the USDA soil classification systems.

"Dispersal system" means a leachfield, seepage pit, mound, at-grade, subsurface drip field, evapotranspiration and infiltration bed, or other type of system for final wastewater treatment and subsurface discharge.

Definitions

"Domestic wastewater" means wastewater with a measured strength less then high-strength wastewater and is the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater. Domestic wastewater may include incidental RV holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump stations. Domestic wastewater does not include wastewater from industrial processes.

"Dump Station" means a facility intended to receive the discharge of wastewater from a holding tank installed on a recreational vehicle. A dump station does not include a full hook-up sewer connection similar to those used at a recreational vehicle park.

"Domestic well" means a groundwater well that provides water for human consumption and is not regulated by the California Department of Public Health.

"Earthen material" means a substance composed of the earth's crust (i.e. soil and rock).

"EDF" see "electronic deliverable format."

"Effluent" means sewage, water, or other liquid, partially or completely treated or in its natural state, flowing out of a septic tank, aerobic treatment unit, dispersal system, or other OWTS component.

"Electronic deliverable format" or **"EDF"** means the data standard adopted by the State Water Board for submittal of groundwater quality monitoring data to the State Water Board's internet-accessible database system Geotracker (http://geotracker.waterboards.ca.gov/).

"Escherichia coli" means a group of bacteria predominantly inhabiting the intestines of humans or other warm-blooded animals, but also occasionally found elsewhere. Used as an indicator of human fecal contamination.

"Existing OWTS" means an OWTS that was constructed and operating prior to the effective date of this Policy, and OWTS for which a construction permit has been issued prior to the effective date of the Policy.

"Flowing water body" means a body of running water flowing over the earth in a natural water course, where the movement of the water is readily discernible or if water is not present it is apparent from review of the geology that when present it does flow, such as in an ephemeral drainage, creek, stream, or river.

"Groundwater" means water below the land surface that is at or above atmospheric pressure.

Definitions

"High-strength wastewater" means wastewater having a 30-day average concentration of biochemical oxygen demand (BOD) greater than 300 milligrams-per-liter (mg/L) or of total suspended solids (TSS) greater than 330 mg/L or a fats, oil, and grease (FOG) concentration greater than 100 mg/L prior to the septic tank or other OWTS treatment component.

"IAPMO" means the International Association of Plumbing and Mechanical Officials.

"Impaired Water Bodies" means those surface water bodies or segments thereof that are identified on a list approved first by the State Water Board and then approved by US EPA pursuant to Section 303(d) of the federal Clean Water Act.

"Local agency" means any subdivision of state government that has responsibility for permitting the installation of and regulating OWTS within its jurisdictional boundaries; typically a county, city, or special district.

"Major repair" means either: (1) for a dispersal system, repairs required for an OWTS dispersal system due to surfacing wastewater effluent from the dispersal field and/or wastewater backed up into plumbing fixtures because the dispersal system is not able to percolate the design flow of wastewater associated with the structure served, or (2) for a septic tank, repairs required to the tank for a compartment baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating.

"Mottling" means a soil condition that results from oxidizing or reducing minerals due to soil moisture changes from saturated to unsaturated over time. Mottling is characterized by spots or blotches of different colors or shades of color (grays and reds) interspersed within the dominant color as described by the USDA soil classification system. This soil condition can be indicative of historic seasonal high groundwater level, but the lack of this condition may not demonstrate the absence of groundwater.

"Mound system" means an aboveground dispersal system (covered sand bed with effluent leachfield elevated above original ground surface inside) used to enhance soil treatment, dispersal, and absorption of effluent discharged from an OWTS treatment unit such as a septic tank. Mound systems have a subsurface discharge.

"New OWTS" means an OWTS permitted after the effective date of this Policy.

"NSF" means NSF International (a.k.a. National Sanitation Foundation), a not for profit, non-governmental organization that develops health and safety standards and performs product certification.

"Oil/grease interceptor" means a passive interceptor that has a rate of flow exceeding 50 gallons-per-minute and that is located outside a building. Oil/grease interceptors are used for separating and collecting oil and grease from wastewater.

Definitions

"Onsite wastewater treatment system(s)" (**OWTS**) means individual disposal systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal. The short form of the term may be singular or plural. OWTS do not include "graywater" systems pursuant to Health and Safety Code Section 17922.12.

"Percolation test" means a method of testing water absorption of the soil. The test is conducted with clean water and test results can be used to establish the dispersal system design.

"Permit" means a document issued by a local agency that allows the installation and use of an OWTS, or waste discharge requirements or a waiver of waste discharge requirements that authorizes discharges from an OWTS.

"Person" means any individual, firm, association, organization, partnership, business trust, corporation, company, State agency or department, or unit of local government who is, or that is, subject to this Policy.

"Pit-privy" (a.k.a. outhouse, pit-toilet) means self-contained waterless toilet used for disposal of non-water carried human waste; consists of a shelter built above a pit in the ground into which human waste falls.

"Policy" means this Policy for Siting, Design, Operation and Management of OWTS.

"Pollutant" means any substance that alters water quality of the waters of the State to a degree that it may potentially affect the beneficial uses of water, as listed in a Basin Plan.

"Projected flows" means wastewater flows into the OWTS determined in accordance with any of the applicable methods for determining average daily flow in the *USEPA Onsite Wastewater Treatment System Manual, 2002,* or for Tier 2 in accordance with an approved Local Agency Management Program.

"Public Water System" is a water system regulated by the California Department of Public Health or a Local Primacy Agency pursuant to Chapter 12, Part 4, California Safe Drinking Water Act, Section 116275 (h) of the California Health and Safety Code.

"Public Water Well" is a ground water well serving a public water system. A spring which is not subject to the California Surface Water Treatment Rule (SWTR), CCR, Title 22, sections 64650 through 64666 is a public well.

"Qualified professional" means an individual licensed or certified by a State of California agency to design OWTS and practice as professionals for other associated reports, as allowed under their license or registration. Depending on the work to be performed and various licensing and registration requirements, this may include an individual who possesses a registered environmental health specialist certificate or is currently licensed as a professional engineer or professional geologist. For the purposes of performing site evaluations, Soil Scientists certified by the Soil Science Society of America are considered qualified professionals. A local agency may modify this definition as part of its Local Agency Management Program.

Definitions

"Regional Water Board" is any of the Regional Water Quality Control Boards designated by Water Code Section 13200. Any reference to an action of the Regional Water Board in this Policy also refers to an action of its Executive Officer, including the conducting of public hearings, pursuant to any general or specific delegation under Water Code Section 13223.

"Replacement OWTS" means an OWTS that has its treatment capacity expanded, or its dispersal system replaced or added onto, after the effective date of this Policy.

"Sand" means a soil particle; this term also refers to a type of soil texture. As a soil particle, sand consists of individual rock or mineral particles in soils having diameters ranging from 0.05 to 2.0 millimeters. As a soil texture, sand is soil that is comprised of 85 percent or more sand particles, with the percentage of silt plus 1.5 times the percentage of clay particles comprising less than 15 percent.

"Seepage pit" means a drilled or dug excavation, three to six feet in diameter, either lined or gravel filled, that receives the effluent discharge from a septic tank or other OWTS treatment unit for dispersal.

"Septic tank" means a watertight, covered receptacle designed for primary treatment of wastewater and constructed to:

1. Receive wastewater discharged from a building;
2. Separate settleable and floating solids from the liquid;
3. Digest organic matter by anaerobic bacterial action;
4. Store digested solids; and
5. Clarify wastewater for further treatment with final subsurface discharge.

"Service provider" means a person capable of operating, monitoring, and maintaining an OWTS in accordance to this Policy.

"Silt" means a soil particle; this term also refers to a type of soil texture. As a soil particle, silt consists of individual rock or mineral particles in soils having diameters ranging from between 0.05 and 0.002 mm. As a soil texture, silt is soil that is comprised as approximately 80 percent or more silt particles and not more than 12 percent clay particles using the USDA soil classification system.

"Single-family dwelling unit" means a structure that is usually occupied by just one household or family and for the purposes of this Policy is expected to generate an average of 250 gallons per day of wastewater.

"Site" means the location of the OWTS and, where applicable, a reserve dispersal area capable of disposing 100 percent of the design flow from all sources the OWTS is intended to serve.

"Site Evaluation" means an assessment of the characteristics of the site sufficient to determine its suitability for an OWTS to meet the requirements of this Policy.

Definitions

"Soil" means the naturally occurring body of porous mineral and organic materials on the land surface, which is composed of unconsolidated materials, including sand-sized, silt-sized, and clay-sized particles mixed with varying amounts of larger fragments and organic material. The various combinations of particles differentiate specific soil textures identified in the soil textural triangle developed by the United States Department of Agriculture (USDA) as found in Soil Survey Staff, USDA; *Soil Survey Manual, Handbook 18,* U.S. Government Printing Office, Washington, DC, 1993, p. 138. For the purposes of this Policy, soil shall contain earthen material of particles smaller than 0.08 inches (2 mm) in size.

"Soil Structure" means the arrangement of primary soil particles into compound particles, peds, or clusters that are separated by natural planes of weakness from adjoining aggregates.

"Soil texture" means the soil class that describes the relative amount of sand, clay, silt and combinations thereof as defined by the classes of the soil textural triangle developed by the USDA (referenced above).

"State Water Board" is the State Water Resources Control Board

"Supplemental treatment" means any OWTS or component of an OWTS, except a septic tank or dosing tank, that performs additional wastewater treatment so that the effluent meets a predetermined performance requirement prior to discharge of effluent into the dispersal field.

"SWAMP" means Surface Water Ambient Monitoring Program and more information is available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/

"Telemetric" means the ability to automatically measure and transmit OWTS data by wire, radio, or other means.

"TMDL" is the acronym for "total maximum daily load." Section 303(d)(1) of the Clean Water Act requires each State to establish a TMDL for each impaired water body to address the pollutant(s) causing the impairment. In California, TMDLs are usually adopted as Basin Plan amendments and contain implementation plans detailing how water quality standards will be attained.

"Total coliform" means a group of bacteria consisting of several *genera* belonging to the family *Enterobacteriaceae*, which includes Escherichia coli bacteria.

"USDA" means the U.S. Department of Agriculture.

"Waste discharge requirement" or **"WDR"** means an operation and discharge permit issued for the discharge of waste pursuant to Section 13260 of the California Water Code.

Responsibilities and Duties

Responsibilities and Duties

2.0 OWTS Owners Responsibilities and Duties

2.1 All new, replacement, or existing OWTS within an area that is subject to a Basin Plan prohibition of discharges from OWTS, must comply with the prohibition. If the prohibition authorizes discharges under specified conditions, the discharge must comply with those conditions and the applicable provisions of this Policy.

2.2 Owners of OWTS shall adhere to the requirements prescribed in local codes and ordinances. Owners of new and replacement OWTS covered by this Policy shall also meet the minimum standards contained in Tier 1, or an alternate standard provided by a Local Agency Management Program per Tier 2, or shall comply with the requirements of Tier 3 if near an impaired water body and subject to Tier 3, or shall provide corrective action for their OWTS if their system meets conditions that place it in Tier 4.

2.3 Owners of OWTS shall comply with any and all permitting conditions imposed by a local agency that do not directly conflict with this Policy, including any conditions that are more stringent than required by this Policy.

2.4 To receive coverage under this Policy and the included waiver of waste discharges, OWTS shall only accept and treat flows of domestic wastewater. In addition, OWTS that accept high-strength wastewater from commercial food service buildings are covered under this Policy and the waiver of waste discharge requirements if the wastewater does not exceed 900 mg/L BOD and there is a properly sized and functioning oil/grease interceptor (a.k.a grease trap).

2.5 Owners of OWTS shall maintain their OWTS in good working condition including inspections and pumping of solids as necessary, or as required by local ordinances, to maintain proper function and assure adequate treatment.

2.6 The following owners of OWTS shall notify the Regional Water Board by submitting a Report of Waste Discharge for the following:

2.6.1 a new or replacement OWTS that does not meet the conditions and requirements set forth in either a Local Agency Management Program if one is approved, an existing local program if it is less than 60 months from the effective date of the Policy and a Local Agency Management Program is not yet approved, or Tier 1 if no Local Agency Management Program has been approved and it is more than 60 months after the effective date of this Policy;

2.6.2 any OWTS, not under individual waste discharge requirements or a waiver of individual waste discharge requirements issued by a Regional Water Board, with the projected flow of over 10,000 gallons-per-day;

2.6.3 any OWTS that receives high-strength wastewater, unless the waste stream is from a commercial food service building;

2.6.4 any OWTS that receives high-strength wastewater from a commercial food service building: (1) with a BOD higher than 900 mg/L, or (2) that does not have a properly sized and functioning oil/grease interceptor.

2.7 All Reports of Waste Discharge shall be accompanied by the required application fee pursuant to California Code of Regulations, title 23, section 2200.

3.0 Local Agency Requirements and Responsibilities

3.1 Local agencies, in addition to implementing their own local codes and ordinances, shall determine whether the requirements within their local jurisdiction will be limited to the water quality protection afforded by the statewide minimum standards in Tier 0, Tier 1, Tier 3, and Tier 4, or whether the local agency will implement a Local Agency Management Program in accordance with Tier 2. Except for Tier 3, local agencies may continue to implement their existing OWTS permitting programs in compliance with the Basin Plan in place at the effective date of the Policy until 60 months after the effective date of this Policy, or approval of a Local Agency Management Program, whichever comes first, and may make minor adjustments as necessary that are in compliance with the applicable Basin Plan and this Policy. Tier 3 requirements take effect on the effective date of this Policy. In the absence of a Tier 2 Local Agency Management Program, to the extent that there is a direct conflict between the applicable minimum standards and the local codes or ordinances (such that it is impossible to comply with both the applicable minimum standards and the local ordinances or codes), the more restrictive standards shall govern.

3.2 If preferred, the local agency may at any time provide the State Water Board and all affected Regional Water Board(s) written notice of its intent to regulate OWTS using a Local Agency Management Program with alternative standards as authorized in Tier 2 of this Policy. A proposed Local Agency Management Program that conforms to the requirements of that Section shall be included with the notice. A local agency shall not implement a program different than the minimum standards contained in Tier 1 and 3 of this Policy after 60 months from the effective date of this Policy until approval of the proposed Local Agency Management Program is granted by either the Regional Water Board or State Water Board. All initial program submittals desiring approval prior to the 60 month limit shall be received no later than 36 months from the effective date of this Policy. Once approved, the local agency shall adhere to the Local Agency Management Program, including all requirements, monitoring, and reporting. If at any time a local agency wishes to modify its Local Agency Management Program, it shall provide the State Water Board and all affected Regional Water Board(s) written notice of its intended modifications and will continue to implement its existing Local Agency Management Program until the modifications are approved.

3.3 All local agencies permitting OWTS shall report annually to the Regional Water Board(s). If a local agency's jurisdictional area is within the boundary of multiple Regional Water Boards, the local agency shall send a copy of the annual report to each Regional Water Board. The annual report shall include the following information (organized in a tabular spreadsheet format) and summarize whether any further actions are warranted to protect water quality or public health:

3.3.1 number and location of complaints pertaining to OWTS operation and maintenance, and identification of those which were investigated and how they were resolved;

3.3.2 shall provide the applications and registrations issued as part of the local septic tank cleaning registration program pursuant to Section 117400 et seq. of the California Health and Safety Code;

3.3.3 number, location, and description of permits issued for new and replacement OWTS and which Tier the permit is issued.

3.4 All local agencies permitting OWTS shall retain permanent records of their permitting actions and will make those records available within 10 working days upon written request for review by a Regional Water Board. The records for each permit shall reference the Tier under which the permit was issued.

3.5 A local agency shall notify the owner of a public well or water intake and the California Department of Public Health as soon as practicable, but not later than 72 hours, upon its discovery of a failing OWTS as described in sections 11.1 and 11.2 within the setbacks described in sections 7.5.6 through 7.5.10.

3.6 A local agency may implement this Policy, or a portion thereof, using its local authority to enforce the policy, as authorized by an approval from the State Water Board or by the appropriate Regional Water Board.

3.7 Nothing in the Policy shall preclude a local agency from adopting or retaining standards for OWTS in an approved Local Agency Management Program that are more protective of the public health or the environment than are contained in this Policy.

3.8 If at any time a local agency wishes to withdraw its previously submitted and approved Tier 2 Local Agency Management Program, it may do so upon 60 days written notice. The notice of withdrawal shall specify the reason for withdrawing its Tier 2 program, the effective date for cessation of the program and resumption of permitting of OWTS only under Tiers 1, 3, and 4.

4.0 Regional Water Board Functions and Duties

4.1 The Regional Water Boards have the principal responsibility for overseeing the implementation of this Policy.

4.2 Regional Water Boards shall incorporate the requirements established in this Policy by amending their Basin Plans within 12 months of the effective date of this Policy, pursuant to Water Code Section 13291(e). The Regional Water

Boards may also consider whether it is necessary and appropriate to retain or adopt any more protective standards. To the extent that a Regional Water Board determines that it is necessary and appropriate to retain or adopt any more protective standards, it shall reconcile those region-specific standards with this Policy to the extent feasible, and shall provide a detailed basis for its determination that each of the more protective standards is necessary and appropriate.

4.2.1 Notwithstanding 4.2 above, the North Coast Regional Water Board will continue to implement its existing Basin Plan requirements pertaining to OWTS within the Russian River watershed until it adopts the Russian River TMDL, at which time it will comply with section 4.2 for the Russian River watershed.

4.3 The Regional Water Board designated in Attachment 3 shall review, and if appropriate, approve a Local Agency Management Program submitted by the local agency pursuant to Tier 2 in this Policy. Upon receipt of a proposed Local Agency Management Program, the Regional Water Board designated in Attachment 3 shall have 90 days to notify the local agency whether the submittal contains all the elements of a Tier 2 program, but may request additional information based on review of the proposed program. Approval must follow a noticed hearing with opportunity for public comment. If a Local Agency Management Program is disapproved, the Regional Water Board designated in Attachment 3 shall provide a written explanation of the reasons for the disapproval. A Regional Water Board may approve a Local Agency Management Program while disapproving any proposed special provisions for impaired water bodies contained in the Local Agency Management Program. If no action is taken by the respective Regional Water Board within 12 months of the submission date of a complete Local Agency Management Program, the program shall be forwarded to the State Water Board for review and approval pursuant to Section 5 of this Policy.

4.3.1 Where the local agency's jurisdiction lies within more than one Regional Water Board, staff from the affected Regional Water Boards shall work cooperatively to assure that water quality protection in each region is adequately protected. If the Regional Water Board designated in Attachment 3 approves the Local Agency Management Program over the written objection of an affected Regional Water Board, that Regional Water Board may submit the dispute to the State Water Board under Section 5.3.

4.3.2 Within 30 days of receipt of a proposed Local Agency Management Program, a Regional Water Board will forward a copy to and solicit comments from the California Department of Public Health regarding a Local Agency Management Program's proposed policies and procedures, including notification to local water purveyors prior to OWTS permitting.

4.4 Once a Local Agency Management Program has been approved, any affected Regional Water Board may require modifications or revoke authorization of a local agency to implement a Tier 2 program, in accordance with the following:

4.4.1 The Regional Water Board shall consult with any other Regional Water Board(s) having jurisdiction over the local agency before providing the notice described in section 4.4.2.

4.4.2 Written notice shall be provided to the local agency detailing the Regional Water Board's action, the cause for such action, remedies to prevent the action from continuing to completion, and appeal process and rights. The local agency shall have 90 days from the date of the written notice to respond with a corrective action plan to address the areas of non-compliance, or to request the Regional Water Board to reconsider its findings.

4.4.3 The Regional Water Board shall approve, approve conditionally, or deny a corrective action plan within 90 days of receipt. The local agency will have 90 days to begin implementation of a corrective action plan from the date of approval or 60 days to request reconsideration from the date of denial. If the local agency fails to submit an acceptable corrective action plan, fails to implement an approved corrective action plan, or request reconsideration, the Regional Water Board may require modifications to the Local Agency Management Program, or may revoke the local agency's authorization to implement a Tier 2 program.

4.4.4 Requests for reconsideration by the local agency shall be decided by the Regional Water Board within 90 days and the previously approved Local Agency Management Program shall remain in effect while the reconsideration is pending.

4.4.5 If the request for reconsideration is denied, the local agency may appeal to the State Water Board and the previously approved Local Agency Management Program shall remain in effect while the appeal is under consideration. The State Water Board shall decide the appeal within 90 days. All decisions of the State Water Board are final.

4.5 The appropriate Regional Water Board shall accept and consider any requests for modification or revocation of a Local Agency Management Program submitted by any person. The Regional Water Board will notify the person making the request and the local agency implementing the Local Agency Management Program at issue by letter within 90 days whether it intends to proceed with the modification or revocation process per Section 4.4 above, or is dismissing the request. The Regional Water Board will post the request and its response letter on its website.

4.6 A Regional Water Board may issue or deny waste discharge requirements or waivers of waste discharge requirements for any new or replacement OWTS within a jurisdiction of a local agency without an approved Local Agency Management Program if that OWTS does not meet the minimum standards contained in Tier 1.

4.7 The Regional Water Boards will implement any notifications and enforcement requirements for OWTS determined to be in Tier 3 of this Policy.

4.8 Regional Water Boards may adopt waste discharge requirements, or conditional waivers of waste discharge requirements, that exempt individual OWTS from requirements contained in this Policy.

5.0 State Water Board Functions and Duties

5.1 As the state agency charged with the development and adoption of this Policy, the State Water Board shall periodically review, amend and/or update this Policy as required.

5.2 The State Water Board may take any action assigned to the Regional Water Boards in this Policy.

5.3 The State Water Board shall resolve disputes between Regional Water Boards and local agencies as needed within 12 months of receiving such a request by a Regional Water Board or local agency, and may take action on its own motion in furtherance of this Policy. As part of this function, the State Water Board shall review and, if appropriate, approve Local Agency Management Programs in cases where the respective Regional Water Board has failed to consider for approval a Local Agency Management Program. The State Water Board shall approve Local Agency Management Programs at a regularly noticed board hearing and shall provide for public participation, including notice and opportunity for public comment. Once taken up by the State Water Board, Local Agency Management Programs shall be approved or denied within 180 days.

5.4 A member of the public may request the State Water Board to resolve any dispute regarding the Regional Water Board's approval of a Local Agency Management Program if the member of the public timely raised the disputed issue before the Regional Water Board. Such requests shall be submitted within 30 days after the Regional Water Board's approval of the Local Agency Management Program. The State Water Board shall notify the member of the public, the local agency, and the Regional Water Board within 90 days whether it intends to proceed with dispute resolution.

5.5 The State Water Board shall accept and consider any requests for modification or revocation of a Local Agency Management Program submitted by any person, where that person has previously submitted said request to the Regional Water Board and has received notice from the Regional Water Board of its dismissal of the request. The State Water Board will notify the person making the request and the local agency implementing the Local Agency Management Program at issue by letter within 90 days whether it intends to proceed with the modification or revocation process per Section 4.4 above, or is dismissing the request. The State Water Board will post the request and its response letter on its website.

5.6 The State Water Board or its Executive Director, after approving any Impaired Water Bodies [303 (d)] List, and for the purpose of implementing Tier 3 of this Policy, shall update Attachment 2 to identify those water bodies where: (1) it is likely that operating OWTS will subsequently be determined to be a contributing

source of pathogens or nitrogen and therefore it is anticipated that OWTS would receive a loading reduction, and (2) it is likely that new OWTS installations discharging within 600 feet of the water body would contribute to the impairment. This identification shall be based on information available at the time of 303 (d) listing and may be further updated based on new information. Updates to Attachment 2 will be processed as amendments to this Policy.

5.7 The State Water Board will make available to local agencies funds from its Clean Water State Revolving Fund loan program for mini-loan programs to be operated by the local agencies for the making of low interest loans to assist private property owners with complying with this Policy.

Tier 0 – Existing OWTS

Tier 0 – Existing OWTS

Existing OWTS that are properly functioning and do not meet the conditions of failing systems or otherwise require corrective action (for example, to prevent groundwater impairment) as specifically described in Tier 4, and are not determined to be contributing to an impairment of surface water as specifically described in Tier 3, are automatically included in Tier 0.

6.0 Coverage for Properly Operating Existing OWTS

6.1 Existing OWTS are automatically covered by Tier 0 and the herein included waiver of waste discharge requirements if they meet the following requirements:

6.1.1 have a projected flow of 10,000 gallons-per-day or less;

6.1.2 receive only domestic wastewater from residential or commercial buildings, or high-strength wastewater from commercial food service buildings that does not exceed 900 mg/L BOD and has a properly sized and functioning oil/grease interceptor (a.k.a. grease trap);

6.1.3 continue to comply with any previously imposed permitting conditions;

6.1.4 do not require supplemental treatment under Tier 3;

6.1.5 do not require corrective action under Tier 4; and

6.1.6 do not consist of a cesspool as a means of wastewater disposal.

6.2 A Regional Water Board or local agency may deny coverage under this Policy to any OWTS that is:

6.2.1 Not in compliance with Section 6.1;

6.2.2 Not able to adequately protect the water quality of the waters of the State, as determined by the Regional Water Board after considering any input from the local agency. A Regional Water Board may require the submission of a report of waste discharge to receive Region specific waste discharge requirements or waiver of waste discharge requirements so as to be protective.

6.3 Existing OWTS currently under waste discharge requirements or individual waiver of waste discharge requirements will remain under those orders until notified in writing by the appropriate Regional Water Board that they are covered under this Policy.

Tier 1 – Low Risk New or Replacement OWTS

New or replacement OWTS meet low risk siting and design requirements as specified in Tier 1, where there is not an approved Local Agency Management Program per Tier 2.

7.0 Minimum Site Evaluation and Siting Standards

7.1 A qualified professional shall perform all necessary soil and site evaluations for all new OWTS and for existing OWTS where the treatment or dispersal system will be replaced or expanded.

7.2 A site evaluation shall determine that adequate soil depth is present in the dispersal area. Soil depth is measured vertically to the point where bedrock, hardpan, impermeable soils, or saturated soils are encountered or an adequate depth has been determined. Soil depth shall be determined through the use of soil profile(s) in the dispersal area and the designated dispersal system replacement area, as viewed in excavations exposing the soil profiles in representative areas, unless the local agency has determined through historical or regional information that a specific site soil profile evaluation is unwarranted.

7.3 A site evaluation shall determine whether the anticipated highest level of groundwater within the dispersal field and its required minimum dispersal zone is not less than prescribed in Table 2 by estimation using one or a combination of the following methods:

7.3.1 Direct observation of the highest extent of soil mottling observed in the examination of soil profiles, recognizing that soil mottling is not always an indicator of the uppermost extent of high groundwater; or

7.3.2 Direct observation of groundwater levels during the anticipated period of high groundwater. Methods for groundwater monitoring and determinations shall be decided by the local agency; or

7.3.3 Other methods, such as historical records, acceptable to the local agency.

7.3.4 Where a conflict in the above methods of examination exists, the direct observation method indicating the highest level shall govern.

7.4 Percolation test results in the effluent disposal area shall not be faster than one minute per inch (1 MPI) or slower than one hundred twenty minutes per inch (120 MPI). All percolation test rates shall be performed by presoaking of percolation test holes and continuing the test until a stabilized rate is achieved.

7.5 Minimum horizontal setbacks from any OWTS treatment component and dispersal systems shall be as follows:

7.5.1 5 feet from parcel property lines and structures;

7.5.2 100 feet from water wells and monitoring wells, unless regulatory or legitimate data requirements necessitate that monitoring wells be located closer;

7.5.3 100 feet from any unstable land mass or any areas subject to earth slides identified by a registered engineer or registered geologist; other setback distance are allowed, if recommended by a geotechnical report prepared by a qualified professional.

7.5.4 100 feet from springs and flowing surface water bodies where the edge of that water body is the natural or levied bank for creeks and rivers, or may be less where site conditions prevent migration of wastewater to the water body;

7.5.5 200 feet from vernal pools, wetlands, lakes, ponds, or other surface water bodies where the edge of that water body is the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies;

7.5.6 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet;

7.5.7 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

7.5.8 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

7.6 Prior to issuing a permit to install an OWTS the permitting agency shall determine if the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage catchment in which the intake point is located, and located such that it may impact water quality at the intake point such as being upstream of the intake point for a flowing water body. If the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage catchment in which the intake point is located, and is located such that it may impact water quality at the intake point:

7.6.1 The permitting agency shall provide a copy of the permit application to the owner of the water system of their proposal to install an OWTS within 1,200 feet of an intake point for a surface water treatment. If the owner of the water system cannot be identified, then the permitting agency will notify California Department of Public Health Drinking Water Program.

7.6.2 The permit application shall include a topographical plot plan for the parcel showing the OWTS components, the property boundaries, proposed structures, physical address, and name of property owner.

7.6.3 The permit application shall provide the estimated wastewater flows, intended use of proposed structure generating the wastewater, soil data, and estimated depth to seasonally saturated soils.

7.6.4 The public water system owner shall have 15 days from receipt of the permit application to provide recommendations and comments to the permitting agency.

7.7 Natural ground slope in all areas used for effluent disposal shall not be greater than 25 percent.

7.8 The average density for any subdivision of property made by Tentative Approval pursuant to the Subdivision Map Act occurring after the effective date of this Policy and implemented under Tier 1 shall not exceed the allowable density values in Table 1 for a single-family dwelling unit, or its equivalent, for those units that rely on OWTS.

Table 1: Allowable Average Densities per Subdivision under Tier 1.

Average Annual Rainfall (in/yr)	Allowable Density (acres/single family dwelling unit)
0 - 15	2.5
>15 - 20	2
>20 - 25	1.5
>25 - 35	1
>35 - 40	0.75
>40	0.5

8.0 Minimum OWTS Design and Construction Standards

8.1 OWTS Design Requirements

8.1.1 A qualified professional shall design all new OWTS and modifications to existing OWTS where the treatment or dispersal system will be replaced or expanded. A qualified professional employed by a local agency, while acting in that capacity, may design, review, and approve a design for a proposed OWTS, if authorized by the local agency.

8.1.2 OWTS shall be located, designed, and constructed in a manner to ensure that effluent does not surface at any time, and that percolation of effluent will not adversely affect beneficial uses of waters of the State.

8.1.3 The design of new and replacement OWTS shall be based on the expected influent wastewater quality with a projected flow not to exceed 3,500 gallons per day, the peak wastewater flow rates for purposes of sizing hydraulic components, the projected average daily flow for purposes of sizing the dispersal system, the characteristics of the site, and the required level of treatment for protection of water quality and public health.

8.1.4 All dispersal systems shall have at least twelve (12) inches of soil cover, except for pressure distribution systems, which must have at least six (6) inches of soil cover.

8.1.5 The minimum depth to the anticipated highest level of groundwater below the bottom of the leaching trench, and the native soil depth immediately below the leaching trench, shall not be less than prescribed in Table 2.

Table 2: Tier 1 Minimum Depths to Groundwater and Minimum Soil Depth from the Bottom of the Dispersal System

Percolation Rate	Minimum Depth
Percolation Rate ≤1 MPI	Only as authorized in a Tier 2 Local Agency Management Program
1 MPI< Percolation Rate ≤ 5 MPI	Twenty (20) feet
5 MPI< Percolation Rate ≤ 30 MPI	Eight (8) feet
30 MPI< Percolation Rate ≤ 120 MPI	Five (5) feet
Percolation Rate > 120 MPI	Only as authorized in a Tier 2 Local Agency Management Program
MPI = minutes per inch	

8.1.6 Dispersal systems shall be a leachfield, designed using not more than 4 square-feet of infiltrative area per linear foot of trench as the infiltrative surface, and with trench width no wider than 3 feet. Seepage pits and other dispersal systems may only be authorized for repairs where siting limitations require a variance. Maximum application rates shall be determined from stabilized percolation rate as provided in Table 3, or from soil texture and structure determination as provided in Table 4.

8.1.7 Dispersal systems shall not exceed a maximum depth of 10 feet as measured from the ground surface to the bottom of the trench.

Tier 1 – Low Risk New or Replacement OWTS

Table 3: Application Rates as Determined from Stabilized Percolation Rate							
Percolation Rate (minutes per Inch)	**Application Rate (gallons per day per square foot)**		**Percolation Rate (minutes per Inch)**	**Application Rate (gallons per day per square foot)**		**Percolation Rate (minutes per Inch)**	**Application Rate (gallons per day per square foot)**
<1	Requires Local Manage-ment Program		31	0.522		61	0.197
1	1.2		32	0.511		62	0.194
2	1.2		33	0.5		63	0.19
3	1.2		34	0.489		64	0.187
4	1.2		35	0.478		65	0.184
5	1.2		36	0.467		66	0.18
6	0.8		37	0.456		67	0.177
7	0.8		38	0.445		68	0.174
8	0.8		39	0.434		69	0.17
9	0.8		40	0.422		70	0.167
10	0.8		41	0.411		71	0.164
11	0.786		42	0.4		72	0.16
12	0.771		43	0.389		73	0.157
13	0.757		44	0.378		74	0.154
14	0.743		45	0.367		75	0.15
15	0.729		46	0.356		76	0.147
16	0.714		47	0.345		77	0.144
17	0.7		48	0.334		78	0.14
18	0.686		49	0.323		79	0.137
19	0.671		50	0.311		80	0.133
20	0.657		51	0.3		81	0.13
21	0.643		52	0.289		82	0.127
22	0.629		53	0.278		83	0.123
23	0.614		54	0.267		84	0.12
24	0.6		55	0.256		85	0.117
25	0.589		56	0.245		86	0.113
26	0.578		57	0.234		87	0.11
27	0.567		58	0.223		88	0.107
28	0.556		59	0.212		89	0.103
29	0.545		60	0.2		90	0.1
30	0.533					>90 - 120	0.1

Tier 1 – Low Risk New or Replacement OWTS

Table 4: Design Soil Application Rates

(Source: USEPA Onsite Wastewater Treatment Systems Manual, February 2002)

Soil Texture (per the USDA soil classification system)	Soil Structure Shape	Grade	Maximum Soil Application Rate(gallons per day per square foot) [1]
Coarse Sand, Sand, Loamy Coarse Sand, Loamy Sand	Single grain	Structureless	0.8
Fine Sand, Very Fine Sand, Loamy Fine Sand, Loamy Very Fine Sand	Single grain	Structureless	0.4
Coarse Sandy Loam, Sandy Loam	Massive	Structureless	0.2
	Platy	Weak	0.2
		Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Fine Sandy Loam, very fine Sandy Loam	Massive	Structureless	0.2
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.2
		Moderate, Strong	0.4
Loam	Massive	Structureless	0.2
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Silt Loam	Massive	Structureless	Prohibited
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Sandy Clay Loam, Clay Loam, Silty Clay Loam	Massive	Structureless	Prohibited
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	0.2
		Moderate, Strong	0.4
Sandy Clay, Clay, or Silty Clay	Massive	Structureless	Prohibited
	Platy	Weak, Moderate, Strong	Prohibited
	Prismatic, Blocky, Granular	Weak	Prohibited
		Moderate, Strong	0.2

[1] Soils listed as prohibited may be allowed under the authority of the Regional Water Board, or as allowed under an approved Local Agency Management Program per Tier 2.

8.1.8 All new dispersal systems shall have 100 percent replacement area that is equivalent and separate, and available for future use.

8.1.9 No dispersal systems or replacement areas shall be covered by an impermeable surface, such as paving, building foundation slabs, plastic sheeting, or any other material that prevents oxygen transfer to the soil.

8.1.10 Rock fragment content of native soil surrounding the dispersal system shall not exceed 50 percent by volume for rock fragments sized as cobbles or larger and shall be estimated using either the point-count or line-intercept methods.

8.1.11 Increased allowance for IAPMO certified dispersal systems is not allowed under Tier 1.

8.2 OWTS Construction and Installation

8.2.1 All new or replacement septic tanks and new or replacement oil/grease interceptor tanks shall comply with the standards contained in Sections K5(b), K5(c), K5(d), K5(e), K5(k), K5(m)(1), and K5(m)(3)(ii) of Appendix K, of Part 5, Title 24 of the 2007 California Code of Regulations.

8.2.2 All new septic tanks shall comply with the following requirements:

8.2.2.1 Access openings shall have watertight risers, the tops of which shall be set at most 6 inches below finished grade; and

8.2.2.2 Access openings at grade or above shall be locked or secured to prevent unauthorized access.

8.2.3 New and replacement OWTS septic tanks shall be limited to those approved by the International Association of Plumbing and Mechanical Officials (IAPMO) or stamped and certified by a California registered civil engineer as meeting the industry standards, and their installation shall be according to the manufacturer's instructions.

8.2.4 New and replacement OWTS septic tanks shall be designed to prevent solids in excess of three-sixteenths (3/16) of an inch in diameter from passing to the dispersal system. Septic tanks that use a National Sanitation Foundation/American National Standard Institute (NSF/ANSI) Standard 46 certified septic tank filter at the final point of effluent discharge from the OWTS and prior to the dispersal system shall be deemed in compliance with this requirement.

8.2.5 A Licensed General Engineering Contractor (Class A), General Building Contractor (Class B), Sanitation System Contractor (Specialty Class C-42), or Plumbing Contractor (Specialty Class C-36) shall install all new OWTS and replacement OWTS in accordance with California Business and Professions Code Sections 7056, 7057, and 7058 and Article 3, Division 8, Title 16 of the California Code of Regulations. A property owner may also install his/her own OWTS if the as-built diagram and the installation are inspected and approved by the Regional Water Board or local agency at a time when the OWTS is in an open condition (not covered by soil and exposed for inspection).

Tier 2 – Local Agency OWTS Management Program

Tier 2 – Local Agency OWTS Management Program

Local agencies may submit management programs for approval, and upon approval then manage the installation of new and replacement OWTS under that program. Local Agency Management Programs approved under Tier 2 provide an alternate method from Tier 1 programs to achieve the same policy purpose, which is to protect water quality and public health. In order to address local conditions, Local Agency Management Programs may include standards that differ from the Tier 1 requirements for new and replacement OWTS contained in Sections 7 and 8. As examples, a Local Agency Management Program may authorize different soil characteristics, usage of seepage pits, and different densities for new developments. Once the Local Agency Management Program is approved, new and replacement OWTS that are included within the Local Agency Management Program may be approved by the Local Agency. A Local Agency, at its discretion, may include Tier 1 standards within its Tier 2 Local Agency Management Program for some or all of its jurisdiction. However, once a Local Agency Management Program is approved, it shall supersede Tier 1 and all future OWTS decisions will be governed by the Tier 2 Local Agency Management Program until it is modified, withdrawn, or revoked.

9.0 Local Agency Management Program for Minimum OWTS Standards

The Local Agency Management Program for minimum OWTS Standards is a management program where local agencies can establish minimum standards that are differing requirements from those specified in Tier 1 (Section 7 and Section 8), including the areas that do not meet those minimum standards and still achieve this Policy's purpose. Local Agency Management Programs may include any one or combination of the following to achieve this purpose:

- Differing system design requirements;
- Differing siting controls such as system density and setback requirements;
- Requirements for owners to enter monitoring and maintenance agreements; and/or
- Creation of an onsite management district or zone.

9.1 Where different and/or additional requirements are needed to protect water quality the local agency shall consider the following, as well as any other conditions deemed appropriate, when developing Local Agency Management Program requirements:

9.1.1 Degree of vulnerability to pollution from OWTS due to hydrogeological conditions.

9.1.2 High Quality waters or other environmental conditions requiring enhanced protection from the effects of OWTS.

9.1.3 Shallow soils requiring a dispersal system installation that is closer to ground surface than is standard.

9.1.4 OWTS is located in area with high domestic well usage.

9.1.5 Dispersal system is located in an area with fractured bedrock.

9.1.6 Dispersal system is located in an area with poorly drained soils.

9.1.7 Surface water is vulnerable to pollution from OWTS.

9.1.8 Surface water within the watershed is listed as impaired for nitrogen or pathogens.

9.1.9 OWTS is located within an area of high OWTS density.

9.1.10 A parcel's size and its susceptibility to hydraulic mounding, organic or nitrogen loading, and whether there is sufficient area for OWTS expansion in case of failure.

9.1.11 Geographic areas that are known to have multiple, existing OWTS predating any adopted standards of design and construction including cesspools.

9.1.12 Geographic areas that are known to have multiple, existing OWTS located within either the pertinent setbacks listed in Section 7.5 of this Policy, or a setback that the local agencies finds is appropriate for that area.

9.2 The Local Agency Management Program shall detail the scope of its coverage, such as the maximum authorized projected flows for OWTS, as well as a clear delineation of those types of OWTS included within and to be permitted by the program, and provide the local site evaluation, siting, design, and construction requirements, and in addition each of the following:

9.2.1 Any local agency requirements for onsite wastewater system inspection, monitoring, maintenance, and repairs, including procedures to ensure that replacements or repairs to failing systems are done under permit from the local governing jurisdiction.

9.2.2 Any special provisions applicable to OWTS within specified geographic areas near specific impaired water bodies listed for pathogens or nitrogen. The special provisions may be substantive and/or procedural, and may include, as examples: consultation with the Regional Water Board prior to issuing permits, supplemental treatment, development of a management district or zone, special siting requirements, additional inspection and monitoring.

9.2.3 Local Agency Management Program variances, for new installations and repairs in substantial conformance, to the greatest extent practicable. Variances are not allowed for the requirements stated in sections 9.4.1 through 9.4.9.

9.2.4 Any educational, training, certification, and/or licensing requirements that will be required of OWTS service providers, site evaluators, designers, installers, pumpers, maintenance contractors, and any other person relating to OWTS activities.

9.2.5 Education and/or outreach program including informational materials to inform OWTS owners about how to locate, operate, and maintain their

OWTS as well as any Water Board order (e.g., Basin Plan prohibitions) regarding OWTS restrictions within its jurisdiction. The education and/or outreach program shall also include procedures to ensure that alternative onsite system owners are provided an informational maintenance or replacement document by the system designer or installer. This document shall cite homeowner procedures to ensure maintenance, repair, or replacement of critical items within 48 hours following failure. If volunteer well monitoring programs are available within the local agency's jurisdiction, the outreach program shall include information on how well owners may participate.

9.2.6 An assessment of existing and proposed disposal locations for septage, the volume of septage anticipated, and whether adequate capacity is available.

9.2.7 Any consideration given to onsite maintenance districts or zones.

9.2.8 Any consideration given to the development and implementation of, or coordination with, Regional Salt and Nutrient Management Plans.

9.2.9 Any consideration given to coordination with watershed management groups.

9.2.10 Procedures for evaluating the proximity of sewer systems to new or replacement OWTS installations.

9.2.11 Procedures for notifying the owner of a public water system prior to issuing an installation or repair permit for an OWTS, if the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage area catchment in which the intake point is located, and is located such that it may impact water quality at the intake point such as upstream of the intake point for a flowing water body, or if the OWTS is within a horizontal sanitary setback from a public well.

9.2.12 Policies and procedures that will be followed when a proposed OWTS dispersal area is within the horizontal sanitary setback of a public well or a surface water intake point. These policies and procedures shall either indicate that supplemental treatment as specified in 10.9 and 10.10 of this policy are required for OWTS that are within a horizontal sanitary setback of a public well or surface water intake point, or will establish alternate siting and operational criteria for the proposed OWTS that would similarly mitigate the potential adverse impact to the public water source.

9.2.13 Any plans for the phase-out or discontinuance of cesspool usage.

9.3 The minimum responsibilities of the local agency for management of the Local Agency Management Program include:

9.3.1 Maintain records of the number, location, and description of permits issued for OWTS where a variance is granted.

9.3.2 Maintain a water quality assessment program to determine the general operation status of OWTS and to evaluate the impact of OWTS discharges, and assess the extent to which groundwater and local surface water quality may be adversely impacted. The focus of the assessment should be areas with characteristics listed under section 9.1. The assessment program will include monitoring and analysis of water quality data, review of complaints, variances, failures, and any information resulting from inspections. The assessment may use existing water quality data from other monitoring programs and/or establish the terms, conditions, and timing for monitoring done by the local agency. At a minimum this assessment will include monitoring data for nitrates and pathogens, and may include data for other constituents which are needed to adequately characterize the impacts of OWTS on water quality. Other monitoring programs for which data may be used include but are not limited to any of the following:

9.3.2.1. Random well samples from a domestic well sampling program.

9.3.2.2. Routine real estate transfer samples if those are performed and reported.

9.3.2.3. Review of public system sampling reports done by the local agency or another municipality responsible for the public system.

9.3.2.4. Water quality testing reports done at the time of new well development if those are reported.

9.3.2.5. Beach water quality testing data performed as part of Health and Safety Code Section 115885.

9.3.2.6. Receiving water sampling performed as a part of a NPDES permit.

9.3.2.7. Data contained in the California Water Quality Assessment Database.

9.3.2.8. Groundwater sampling performed as part of Waste Discharge Requirements.

9.3.2.9. Groundwater data collected as part of the Groundwater Ambient Monitoring and Assessment Program and available in the Geotracker Database.

9.3.3 Submit an annual report by February 1 to the applicable Regional Water Board summarizing the status of items 9.3.1 through 9.3.2 above. Every fifth year, submit an evaluation of the monitoring program and an assessment of whether water quality is being impacted by OWTS, identifying any changes in the Local Agency Management Program that will be undertaken to address impacts from OWTS. The first report will commence one year after approval of the local agency's Local Agency Management Program. In addition to summarizing monitoring data collected per 9.3.2 above, all groundwater monitoring data generated by the local agency shall be submitted in EDF format for inclusion into

Geotracker, and surface water monitoring shall be submitted to CEDEN in a SWAMP comparable format.

9.4 The following are not allowed to be authorized in a Local Agency Management Program:

9.4.1 Cesspools of any kind or size.

9.4.2 OWTS receiving a projected flow over 10,000 gallons per day.

9.4.3 OWTS that utilize any form of effluent disposal that discharges on or above the post installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond.

9.4.4 Slopes greater than 30 percent without a slope stability report approved by a registered professional.

9.4.5 Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 0.70.

9.4.6 OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.

9.4.7 OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks.

9.4.8 Separation of the bottom of dispersal system to groundwater less than two (2) feet, except for seepage pits, which shall not be less than 10 feet.

9.4.9 Installation of new or replacement OWTS where public sewer is available. The public sewer may be considered as not available when such public sewer or any building or exterior drainage facility connected thereto is located more than 200 feet from any proposed building or exterior drainage facility on any lot or premises that abuts and is served by such public sewer. This provision does not apply to replacement OWTS where the connection fees and construction cost are greater than twice the total cost of the replacement OWTS and the local agency determines that the discharge from the OWTS will not affect groundwater or surface water to a degree that makes it unfit for drinking or other uses.

9.4.10 Except as provided for in sections 9.4.11 and 9.4.12, new or replacement OWTS with minimum horizontal setbacks less than any of the following:

9.4.10.1 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet in depth.

9.4.10.2 200 feet from a public water well where the depth of the effluent dispersal system exceeds 10 feet in depth.

9.4.10.3 Where the effluent dispersal system is within 600 feet of a public water well and exceeds 20 feet in depth the horizontal setback required to achieve a two-year travel time for microbiological contaminants shall be evaluated. A qualified professional shall conduct this evaluation. However in no case shall the setback be less than 200 feet.

9.4.10.4 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

9.4.10.5 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment area of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

9.4.11 For replacement OWTS that do not meet the above horizontal separation requirements, the replacement OWTS shall meet the horizontal separation to the greatest extent practicable. In such case, the replacement OWTS shall utilize supplemental treatment and other mitigation measures, unless the permitting authority finds that there is no indication that the previous system is adversely affecting the public water source, and there is limited potential that the replacement system could impact the water source based on topography, soil depth, soil texture, and groundwater separation.

9.4.12 For new OWTS, installed on parcels of record existing at the time of the effective date of this Policy, that cannot meet the above horizontal separation requirements, 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 and any other mitigation measures prescribed by the permitting authority.

9.5 A Local Agency Management Program for OWTS must include adequate detail, including technical information to support how all the criteria in their program work together to protect water quality and public health.

9.6 A Regional Water Board reviewing a Local Agency Management Program shall consider, among other things, the past performance of the local program to adequately protect water quality, and where this has been achieved with criteria differing from Tier 1, shall not unnecessarily require modifications to the program for purposes of uniformity, as long as the Local Agency Management Program meets the requirements of Tier 2.

Tier 3 – Impaired Areas

Tier 3 – Advanced Protection Management Programs for Impaired Areas

Existing, new, and replacement OWTS that are near impaired water bodies may be addressed by a TMDL and its implementation program, or special provisions contained in a Local Agency Management Program. If there is no TMDL or special provisions, new or replacement OWTS within 600 feet of impaired water bodies listed in Attachment 2 must meet the applicable specific requirements of Tier 3.

10.0 Advanced Protection Management Program

An Advanced Protection Management Program is the minimum required management program for all OWTS located near a water body that has been listed as impaired due to nitrogen or pathogen indicators pursuant to Section 303(d) of the Clean Water Act. Local agencies are authorized to implement Advanced Protection Management Programs in conjunction with an approved Local Agency Management Program or, if there is no approved Local Agency Management Program, Tier 1. Local agencies are encouraged to collaborate with the Regional Water Boards by sharing any information pertaining to the impairment, provide advice on potential remedies, and regulate OWTS to the extent that their authority allows for the improvement of the impairment.

10.1 The geographic area for each water body's Advanced Protection Management Program is defined by the applicable TMDL, if one has been approved. If there is not an approved TMDL, it is defined by an approved Local Agency Management Program, if it contains special provisions for that water body. If it is not defined in an approved TMDL or Local Agency Management Program, it shall be 600 linear feet [in the horizontal (map) direction] of a water body listed in Attachment 2 where the edge of that water body is the natural or levied bank for creeks and rivers, the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies, as appropriate. OWTS near impaired water bodies that are not listed on Attachment 2, and do not have a TMDL and are not covered by a Local Agency Management Program with special provisions, are not addressed by Tier 3.

10.2 The requirements of an Advanced Protection Management Program will be in accordance with a TMDL implementation plan, if one has been adopted to address the impairment. An adopted TMDL implementation plan supersedes all other requirements in Tier 3. All TMDL implementation plans adopted after the effective date of this Policy that contain load allocations for OWTS shall include a schedule that requires compliance with the load allocations as soon as practicable, given the watershed-specific circumstances. The schedule shall require that OWTS implementation actions for OWTS installed prior to the TMDL implementation plan's effective date shall commence within 3 years after the TMDL implementation plan's effective date, and that OWTS implementation actions for OWTS installed after the TMDL implementation plan's effective date shall commence immediately. The TMDL implementation plan may use some or all of the Tier 3 requirements and shall establish the applicable area of

implementation for OWTS requirements within the watershed. For those impaired water bodies that do have an adopted TMDL addressing the impairment, but the TMDL does not assign a load allocation to OWTS, no further action is required unless the TMDL is modified at some point in the future to include actions for OWTS. Existing, new, and replacement OWTS that are near impaired water bodies and are covered by a Basin Plan prohibition must also comply with the terms of the prohibition, as provided in Section 2.1.

10.3 In the absence of an adopted TMDL implementation plan, the requirements of an Advanced Protection Management Program will consist of any special provisions for the water body if any such provisions have been approved as part of a Local Agency Management Program.

10.4 The Regional Water Boards shall adopt TMDLs for impaired water bodies identified in Attachment 2, in accordance with the specified dates.

10.4.1 If a Regional Water Board does not complete a TMDL within two years of the time period specified in Attachment 2, coverage under this Policy's waiver of waste discharge requirements shall expire for any OWTS that has any part of its dispersal system discharging within the geographic area of an Advanced Protection Management Program. The Regional Water Board shall issue waste discharge requirements, general waste discharge requirements, waivers of waste discharge requirements, or require corrective action for such OWTS. The Regional Water Board will consider the following when establishing the waste discharge requirements, general waste discharge requirements, waivers of waste discharge requirements, or requirement for corrective action:

10.4.1.1 Whether supplemental treatment should be required.

10.4.1.2 Whether routine inspection of the OWTS should be required.

10.4.1.3 Whether monitoring of surface and groundwater should be performed.

10.4.1.4 The collection of a fee for those OWTS covered by the order.

10.4.1.5 Whether owners of previously-constructed OWTS should file a report by a qualified professional in accordance with section 10.5.

10.4.1.6 Whether owners of new or replacement OWTS should file a report of waste discharge with additional supporting technical information as required by the Regional Water Board.

10.5 If the Regional Water Board requires owners of OWTS to submit a qualified professional's report pursuant to Section 10.4.1.5, the report shall include a determination of whether the OWTS is functioning properly and as designed or requires corrective actions per Tier 4, and regardless of its state of function, whether it is contributing to impairment of the water body.

10.5.1 The qualified professional's report may also include, but is not limited to:

10.5.1.1 A general description of system components, their physical layout, and horizontal setback distances from property lines, buildings, wells, and surface waters.

10.5.1.2 A description of the type of wastewater discharged to the OWTS such as domestic, commercial, or industrial and classification of it as domestic wastewater or high-strength waste.

10.5.1.3 A determination of the systems design flow and the volume of wastewater discharged daily derived from water use, either estimated or actual if metered.

10.5.1.4 A description of the septic tank, including age, size, material of construction, internal and external condition, water level, scum layer thickness, depth of solids, and the results of a one-hour hydrostatic test.

10.5.1.5 A description of the distribution box, dosing siphon, or distribution pump, and if flow is being equally distributed throughout the dispersal system, as well as any evidence of solids carryover, clear water infiltration, or evidence of system backup.

10.5.1.6 A description of the dispersal system including signs of hydraulic failure, condition of surface vegetation over the dispersal system, level of ponding above the infiltrative surface within the dispersal system, other possible sources of hydraulic loading to the dispersal area, and depth of the seasonally high groundwater level.

10.5.1.7 A determination of whether the OWTS is discharging to the ground's surface.

10.5.1.8 For a water body listed as an impaired water body for pathogens, a determination of the OWTS dispersal system's separation from its deepest most infiltrative surface to the highest seasonal groundwater level or fractured bedrock.

10.5.1.9 For a water body listed as an impaired water body for nitrogen, a determination of whether the groundwater under the dispersal field is reaching the water body, and a description of the method used to make the determination.

10.6 For new, replacement, and existing OWTS in an Advanced Protection Management Program, the following are not covered by this Policy's waiver but may be authorized by a separate Regional Water Board order:

10.6.1 Cesspools of any kind or size.

10.6.2 OWTS receiving a projected flow over 10,000 gallons per day.

10.6.3 OWTS that utilize any form of effluent disposal on or above the ground surface.

10.6.4 Slopes greater than 30 percent without a slope stability report approved by a registered professional.

10.6.5 Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 0.70.

10.6.6 OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.

10.6.7 OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks.

10.6.8 Separation of the bottom of dispersal system to groundwater less than two (2) feet, except for seepage pits, which shall not be less than 10 feet.

10.6.9 Minimum horizontal setbacks less than any of the following:

10.6.9.1 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet in depth;

10.6.9.2 200 feet from a public water well where the depth of the effluent dispersal system exceeds 10 feet in depth:

10.6.9.3 Where the effluent dispersal system is within 600 feet of a public water well and exceeds 20 feet in depth the horizontal setback required to achieve a two-year travel time for microbiological contaminants shall be evaluated. A qualified professional shall conduct this evaluation. However in no case shall the setback be less than 200 feet.

10.6.9.4 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

10.6.9.5 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

10.6.9.6 For replacement OWTS that do not meet the above horizontal separation requirements, the replacement OWTS shall meet the horizontal separation to the greatest extent practicable. In such case, the replacement OWTS shall utilize supplemental treatment and other mitigation measures.

10.6.9.7 For new OWTS, installed on parcels of record existing at the time of the effective date of this Policy, that cannot meet the above horizontal separation requirements, the OWTS shall meet the horizontal separation to the greatest extent practicable and shall

utilize supplemental treatment for pathogens as specified in section 10.10 and any other mitigation measures as prescribed by the permitting authority.

10.7 The requirements contained in Section 10 shall not apply to owners of OWTS that are constructed and operating, or permitted, on or prior to the date that the nearby water body is added to Attachment 2 who commit by way of a legally binding document to connect to a centralized wastewater collection and treatment system regulated through WDRs as specified within the following timeframes:

10.7.1 The owner must sign the document within forty-eight months of the date that the nearby water body is initially listed on Attachment 2.

10.7.2 The specified date for the connection to the centralized community wastewater collection and treatment system shall not extend beyond nine years following the date that the nearby water body is added to Attachment 2.

10.8 In the absence of an adopted TMDL implementation plan or Local Agency Management Program containing special provisions for the water body, all new or replacement OWTS permitted after the date that the water body is initially listed in Attachment 2 that have any discharge within the geographic area of an Advanced Protection Management Program shall meet the following requirements:

10.8.1 Utilize supplemental treatment and meet performance requirements in 10.9 if impaired for nitrogen and 10.10 if impaired for pathogens,

10.8.2 Comply with the setback requirements of Section 7.5.1 to 7.5.5, and

10.8.3 Comply with any applicable Local Agency Management Program requirements.

10.9 Supplemental treatment requirements for nitrogen

10.9.1 Effluent from the supplemental treatment components designed to reduce nitrogen shall be certified by NSF, or other approved third party tester, to meet a 50 percent reduction in total nitrogen when comparing the 30-day average influent to the 30-day average effluent.

10.9.2 Where a drip-line dispersal system is used to enhance vegetative nitrogen uptake, the dispersal system shall have at least six (6) inches of soil cover.

Tier 3 – Impaired Areas

10.10 Supplemental treatment requirements for pathogens

10.10.1 Supplemental treatment 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.

10.10.2 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.

10.11 OWTS in an Advanced Protection Management Program with supplemental treatment shall be designed to meet the applicable performance requirements above and shall be stamped or approved by a Qualified Professional.

10.12 Prior to the installation of any proprietary treatment OWTS in an Advanced Protection Management Program, all such treatment components shall be tested by an independent third party testing laboratory.

10.13 The ongoing monitoring of OWTS in an Advanced Protection Management Program with supplemental treatment components designed to meet the performance requirements in Sections 10.9 and 10.10 shall be monitored in accordance with the operation and maintenance manual for the OWTS or more frequently as required by the local agency or Regional Water Board.

10.14 OWTS in an Advanced Protection Management Program with supplemental treatment components shall be equipped with a visual or audible alarm as well as a telemetric alarm that alerts the owner and service provider in the event of system malfunction. Where telemetry is not possible, the owner or owner's agent shall inspect the system at least monthly while the system is in use as directed and instructed by a service provider and notify the service provider not less than quarterly of the observed operating parameters of the OWTS.

10.15 OWTS in an Advanced Protection Management Program designed to meet the disinfection requirements in Section 10.10 shall be inspected for proper operation quarterly while the system is in use by a service provider unless a telemetric monitoring system is capable of continuously assessing the operation of the disinfection system. Testing of the wastewater flowing from supplemental treatment components that perform disinfection shall be sampled at a point in the system after the treatment components and prior to the dispersal system and shall be conducted quarterly based on analysis of total coliform with a minimum detection limit of 2.2 MPN. All effluent samples must include the geographic coordinates of the sample's location. Effluent samples shall be taken by a service provider and analyzed by a California Department of Public Health certified laboratory.

Tier 3 – Impaired Areas

10.16 The minimum responsibilities of a local agency administering an Advanced Protection Management Program include those prescribed for the Local Agency Management Programs in Section 9.3 of this policy, as well as monitoring owner compliance with Sections 10.13, 10.14,and 10.15.

Tier 4 – OWTS Requiring Corrective Action

OWTS that require corrective action or are either presently failing or fail at any time while this Policy is in effect are automatically included in Tier 4 and must follow the requirements as specified. OWTS included in Tier 4 must continue to meet applicable requirements of Tier 0, 1, 2 or 3 pending completion of corrective action.

11.0 Corrective Action for OWTS

11.1 Any OWTS that has pooling effluent, discharges wastewater to the surface, or has wastewater backed up into plumbing fixtures, because its dispersal system is no longer adequately percolating the wastewater is deemed to be failing, no longer meeting its primary purpose to protect public health, and requires major repair, and as such the dispersal system must be replaced, repaired, or modified so as to return to proper function and comply with Tier 1, 2, or 3 as appropriate.

11.2 Any OWTS septic tank failure, such as a baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating is deemed to be failing, no longer meeting its primary purpose to protect public health, and requires major repair, and as such shall require the septic tank to be brought into compliance with the requirements of Section 8 in Tier 1 or a Local Agency Management Program per Tier 2.

11.3 Any OWTS that has a failure of one of its components other than those covered by 11.1 and 11.2 above, such as a distribution box or broken piping connection, shall have that component repaired so as to return the OWTS to a proper functioning condition and return to Tier 0, 1, 2, or 3.

11.4 Any OWTS that has affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other public nuisance condition shall be modified or upgraded so as to abate its impact.

11.5 If the owner of the OWTS is not able to comply with corrective action requirements of this section, the Regional Water Board may authorize repairs that are in substantial conformance, to the greatest extent practicable, with Tiers 1 or 3, or may require the owner of the OWTS to submit a report of waste discharge for evaluation on a case-by-case basis. Regional Water Board response to such reports of waste discharge may include, but is not limited to, enrollment in general waste discharge requirements, issuance of individual waste discharge requirements, or issuance of waiver of waste discharge requirements. A local agency may authorize repairs that are in substantial conformance, to the greatest extent practicable, with Tier 2 in accordance with section 9.2.3 if there is an approved Local Agency Management Program, or with an existing program if a Local Agency Management Program has not been approved and it is less than 5 years from the effective date of the Policy.

Tier 4 – OWTS Requiring Corrective Action

11.6 Owners of OWTS will address any corrective action requirement of Tier 4 as soon as is reasonably possible, and must comply with the time schedule of any corrective action notice received from a local agency or Regional Water Board, to retain coverage under this Policy.

11.7 Failure to meet the requirements of Tier 4 constitute a failure to meet the conditions of the waiver of waste discharge requirements contained in this Policy, and is subject to further enforcement action.

Waiver – Effective Date – Financial Assistance

Conditional Waiver of Waste Discharge Requirements

12.0 In accordance with Water Code section 13269, the State Water Board hereby waives the requirements to submit a report of waste discharge, obtain waste discharge requirements, and pay fees for discharges from OWTS covered by this Policy. Owners of OWTS covered by this Policy shall comply with the following conditions:

12.0.1 The OWTS shall function as designed with no surfacing effluent.

12.0.2 The OWTS shall not utilize a dispersal system that is in soil saturated with groundwater.

12.0.3 The OWTS shall not be operated while inundated by a storm or flood event.

12.0.4 The OWTS shall not cause or contribute to a condition of nuisance or pollution.

12.0.5 The OWTS shall comply with all applicable local agency codes, ordinances, and requirements.

12.0.6 The OWTS shall comply with and meet any applicable TMDL implementation requirements, special provisions for impaired water bodies, or supplemental treatment requirements imposed by Tier 3.

12.0.7 The OWTS shall comply with any corrective action requirements of Tier 4.

12.1 This waiver may be revoked by the State Water Board or the applicable Regional Water Board for any discharge from an OWTS, or from a category of OWTS.

Effective Date

13.0 This Policy becomes effective six months after its approval by the Office of Administrative Law, and all deadlines and compliance dates stated herein start at such time.

Waiver – Effective Date – Financial Assistance

Financial Assistance

14.0 Local Agencies may apply to the State Water Board for funds from the Clean Water State Revolving Fund for use in mini-loan programs that provide low interest loan assistance to private property owners with costs associated with complying with this Policy.

14.1 Loan interest rates for loans to local agencies will be set by the State Water Board using its policies, procedures, and strategies for implementing the Clean Water State Revolving Fund program, but will typically be one-half of the States most recent General Obligation bond sale. Historically interest rates have ranged between 2.0 and 3.0 percent.

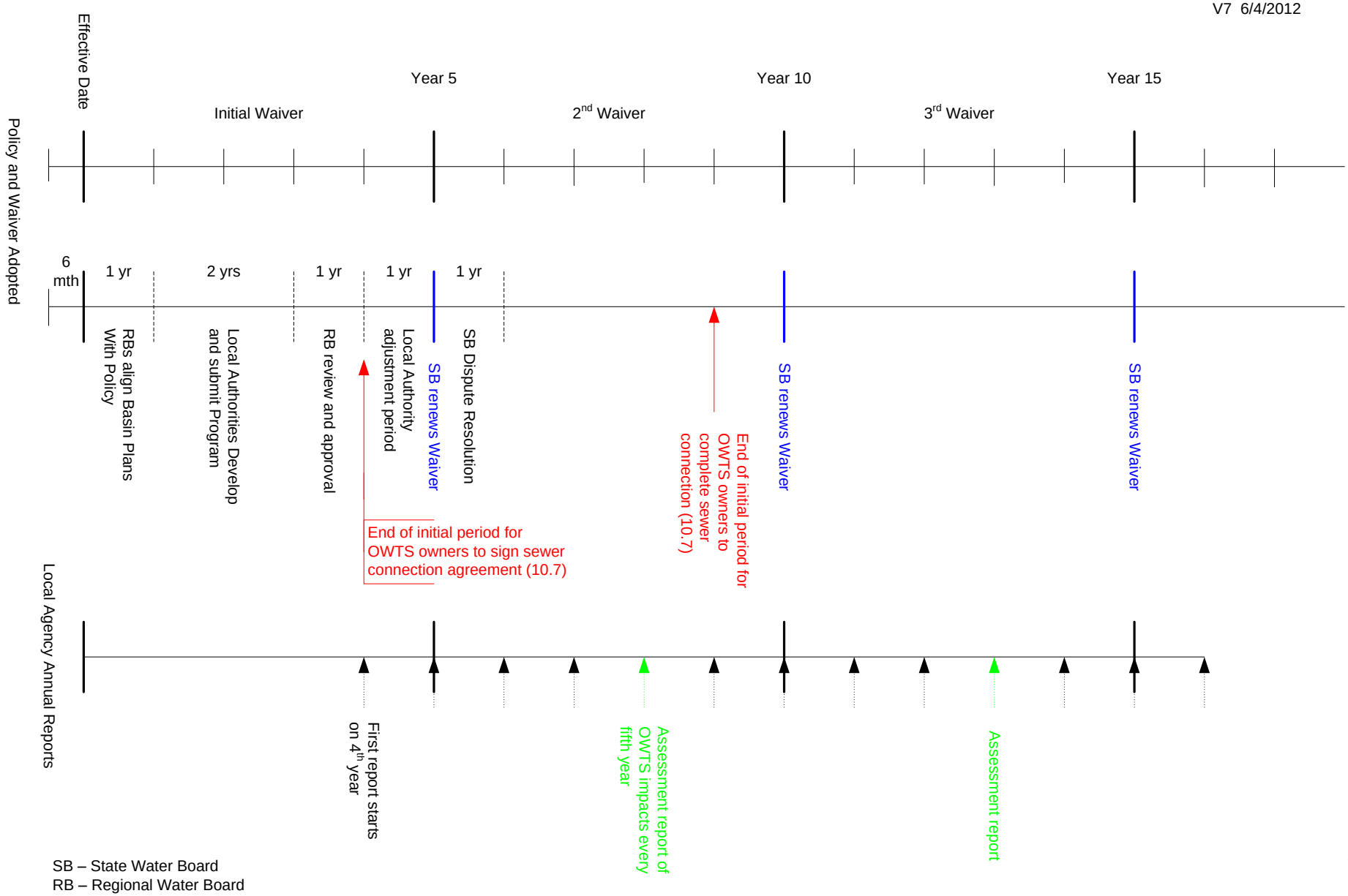
14.2 Local agencies may add additional interest points to their loans made to private entities to cover their costs of administering the mini-loan program.

14.3 Local agencies may submit their suggested loan eligibility criteria for the min-loan program they wish to establish to the State Water Board for approval, but should consider the legislative intent stated in Water Code Section 13291.5 is that assistance is encouraged for private property owners whose cost of complying with the requirements of this policy exceeds one-half of one percent of the current assessed value of the property on which the OWTS is located.

Attachment 1

OWTS Policy Time Lines

V7 6/4/2012



SB – State Water Board
RB – Regional Water Board

Attachment 2

The tables below specifically identify those impaired water bodies where: (1) it is likely that operating OWTS will subsequently be determined to be a contributing source of pathogens or nitrogen and therefore it is anticipated that OWTS would receive a loading reduction, and (2) it is likely that new OWTS installations discharging within 600 feet of the water body would contribute to the impairment. Per this Policy (Tier 3, Section 10) the Regional Water Boards must adopt a TMDL by the date specified in the table. The State Water Board, at the time of approving future 303 (d) Lists, will specifically identify those impaired water bodies that are to be added or removed from the tables below.

Table 5. Water Bodies impaired for pathogens that are subject to Tier 3 as of 2012.

REGION NO.	REGION NAME	WATERBODY NAME	COUNTIES	TMDL Completion Date
1	North Coast	Clam Beach	Humboldt	2020
1	North Coast	Luffenholtz Beach	Humboldt	2020
1	North Coast	Moonstone County Park	Humboldt	2020
1	North Coast	Russian River HU, Lower Russian River HA, Guerneville HSA, mainstem Russian River from Fife Creek to Dutch Bill Creek	Sonoma	2016
1	North Coast	Russian River HU, Lower Russian River HA, Guerneville HSA, Green Valley Creek watershed	Sonoma	2016
1	North Coast	Russian River HU, Middle Russian River HA, Geyserville HSA, mainstem Russian River at Healdsburg Memorial Beach and unnamed tributary at Fitch Mountain	Sonoma	2016
1	North Coast	Russian River HU, Middle Russian River HA, mainstem Laguna de Santa Rosa	Sonoma	2016
1	North Coast	Russian River HU, Middle Russian River HA, mainstem Santa Rosa Creek	Sonoma	2016
1	North Coast	Trinidad State Beach	Humboldt	2020
2	San Francisco Bay	China Camp Beach	Marin	2014
2	San Francisco Bay	Lawsons Landing	Marin	2015
2	San Francisco Bay	Pacific Ocean at Bolinas Beach	Marin	2014

Attachment 2

REGION NO.	REGION NAME	WATERBODY NAME	COUNTIES	TMDL Completion Date
2	San Francisco Bay	Pacific Ocean at Fitzgerald Marine Reserve	San Mateo	2016
2	San Francisco Bay	Pacific Ocean at Muir Beach	Marin	2015
2	San Francisco Bay	Pacific Ocean at Pillar Point Beach	San Mateo	2016
2	San Francisco Bay	Petaluma River	Marin, Sonoma	2017
2	San Francisco Bay	Petaluma River (tidal portion)	Marin, Sonoma	2017
2	San Francisco Bay	San Gregorio Creek	San Mateo	2019
3	Central Coast	Pacific Ocean at Point Rincon (mouth of Rincon Cr, Santa Barbara County)	Santa Barbara	2015
3	Central Coast	Rincon Creek	Santa Barbara, Ventura	2015
4	Los Angeles	Canada Larga (Ventura River Watershed)	Ventura	2017
4	Los Angeles	Coyote Creek	Los Angeles, Orange	2015
4	Los Angeles	Rincon Beach	Ventura	2017
4	Los Angeles	San Antonio Creek (Tributary to Ventura River Reach 4)	Ventura	2017
4	Los Angeles	San Gabriel River Reach 1 (Estuary to Firestone)	Los Angeles	2015
4	Los Angeles	San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam	Los Angeles	2015
4	Los Angeles	San Gabriel River Reach 3 (Whittier Narrows to Ramona)	Los Angeles	2015
4	Los Angeles	San Jose Creek Reach 1 (SG Confluence to Temple St.)	Los Angeles	2015
4	Los Angeles	San Jose Creek Reach 2 (Temple to I-10 at White Ave.)	Los Angeles	2015
4	Los Angeles	Sawpit Creek	Los Angeles	2015
4	Los Angeles	Ventura River Reach 3 (Weldon Canyon to Confl. w/ Coyote Cr)	Ventura	2017
4	Los Angeles	Walnut Creek Wash (Drains from Puddingstone Res)	Los Angeles	2015
5	Central Valley	Wolf Creek (Nevada County)	Nevada, Placer	2020
5	Central Valley	Woods Creek (Tuolumne County)	Tuolumne	2020
7	Colorado River	Alamo River	Imperial	2017

Attachment 2

REGION NO.	REGION NAME	WATERBODY NAME	COUNTIES	TMDL Completion Date
7	Colorado River	Palo Verde Outfall Drain and Lagoon	Imperial, Riverside	2017
8	Santa Ana	Canyon Lake (Railroad Canyon Reservoir)	Riverside	2019
8	Santa Ana	Fulmor, Lake	Riverside	2019
8	Santa Ana	Goldenstar Creek	Riverside	2019
8	Santa Ana	Los Trancos Creek (Crystal Cove Creek)	Orange	2017
8	Santa Ana	Lytle Creek	San Bernardino	2019
8	Santa Ana	Mill Creek Reach 1	San Bernardino	2015
8	Santa Ana	Mill Creek Reach 2	San Bernardino	2015
8	Santa Ana	Morning Canyon Creek	Orange	2017
8	Santa Ana	Mountain Home Creek	San Bernardino	2019
8	Santa Ana	Mountain Home Creek, East Fork	San Bernardino	2019
8	Santa Ana	Silverado Creek	Orange	2017
8	Santa Ana	Peters Canyon Channel	Orange	2017
8	Santa Ana	Santa Ana River, Reach 2	Orange, Riverside	2019
8	Santa Ana	Temescal Creek, Reach 6 (Elsinore Groundwater sub basin boundary to Lake Elsinore Outlet)	Riverside	2019
8	Santa Ana	Seal Beach	Orange	2017
8	Santa Ana	Serrano Creek	Orange	2017
8	Santa Ana	Huntington Harbour	Orange	2017

Attachment 2

Table 6. Water Bodies impaired for nitrogen that are subject to Tier 3.

REGION NO.	REGION NAME	WATERBODY NAME	COUNTIES	TMDL Completion Date
1	North Coast	Russian River HU, Middle Russian River HA, mainstem Laguna de Santa Rosa	Sonoma	2015
2	San Francisco Bay	Lagunitas Creek	Marin	2016
2	San Francisco Bay	Napa River	Napa, Solano	2014
2	San Francisco Bay	Petaluma River	Marin, Sonoma	2017
2	San Francisco Bay	Petaluma River (tidal portion)	Marin, Sonoma	2017
2	San Francisco Bay	Sonoma Creek	Sonoma	2014
2	San Francisco Bay	Tomales Bay	Marin	2019
2	San Francisco Bay	Walker Creek	Marin	2016
4	Los Angeles	Malibu Creek	Los Angeles	2016
4	Los Angeles	San Antonio Creek (Tributary to Ventura River Reach 4)	Ventura	2013
8	Santa Ana	East Garden Grove Wintersburg Channel	Orange	2017
8	Santa Ana	Grout Creek	San Bernardino	2015
8	Santa Ana	Rathbone (Rathbun) Creek	San Bernardino	2015
8	Santa Ana	Summit Creek	San Bernardino	2015
8	Santa Ana	Serrano Creek	Orange	2017

Attachment 3

Regional Water Boards, upon mutual agreement, may designate one Regional Water Board to regulate a person or entity that is under the jurisdiction of both (Water Code Section 13228). The following table identifies the designated Regional Water Board for all counties within the State for purposes of reviewing and, if appropriate, approving new Local Agency Management Plans.

Table 7. Regional Water Board designations by County.

County	Regions with Jurisdiction	Designated Region
Alameda	2,5	2
Alpine	5,6	6
Amador	5	5
Butte	5	5
Calaveras	5	5
Colusa	5	5
Contra Costa	2,5	2
Del Norte	1	1
El Dorado	5,6	5
Fresno	5	5
Glenn	5,1	5
Humboldt	1	1
Imperial	7	7
Inyo	6	6
Kern	3,4,5,6	5
Kings	5	5
Lake	5,1	5
Lassen	5,6	6
Los Angeles	4,6	4
Madera	5	5
Marin	2,1	2
Mariposa	5	5
Mendocino	1	1
Merced	5	5
Modoc	1,5,6	5
Mono	6	6
Monterey	3	3
Napa	2,5	2
Nevada	5,6	5
Orange	8,9	8

County	Regions with Jurisdiction	Designated Region
Placer	5,6	5
Plumas	5	5
Riverside	7,8,9	7
Sacramento	5	5
San Benito	3,5	3
San Bernardino	6,7,8	6
San Diego	9,7	9
San Francisco	2	2
San Joaquin	5	5
San Luis Obispo	3,5	3
San Mateo	2,3	2
Santa Barbara	3	3
Santa Clara	2,3	2
Santa Cruz	3	3
Shasta	5	5
Sierra	5,6	5
Siskiyou	1,5	1
Solano	2,5	5
Sonoma	1,2	1
Stanislaus	5	5
Sutter	5	5
Tehama	5	5
Trinity	1	1
Tulare	5	5
Tuolumne	5	5
Ventura	4,3	4
Yolo	5	5
Yuba	5	5