CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION R5-2018-0009

APPROVING THE LOCAL AGENCY MANAGEMENT PROGRAM
FOR
TULARE COUNTY RESOURCE MANAGEMENT AGENCY AND
TULARE COUNTY ENVIRONMENTAL HEALTH DIVISION

WHEREAS, on 19 June 2012, the State Water Resources Control Board (State Water Board) adopted Resolution No. 2012-0032, which in part approved the *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (OWTS Policy); and

WHEREAS, the OWTS Policy allows Local Agencies to propose Local Agency Management Programs (LAMPs) for California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board or Board) approval, as conditional waivers of Waste Discharge Requirements; and

WHEREAS, The OWTS Policy requires Central Valley Water Board staff to solicit comments from the State Water Board's Division of Drinking Water (DDW) regarding a LAMP's proposed setbacks and notifications to water purveyors; and

WHEREAS, on 28 November 2016 the Tulare County Resource Management Agency and Tulare County Environmental Health Division (collectively referred to as Tulare County) submitted a formal draft LAMP; and

WHEREAS, on 5 December 2016, Central Valley Water Board staff sought DDW's concurrence on proposed setbacks and notifications in the formal draft LAMP and then met with Tulare County to discuss issues; on 20 December 2016 Tulare County submitted a preliminary completeness checklist per Board staff's request; on 2 February 2017 Board staff further commented on the formal draft LAMP; and

WHEREAS, on 28 December 2017 Tulare County submitted a revised formal draft LAMP with checklist; on 17 January 2018 staff commented on the revised LAMP and sought DDW's concurrence on proposed setbacks and notifications; on 17 January 2018 staff and Tulare County resolved issues with the revised LAMP and checklist; and on 6 February 2018 DDW concurred with the proposed setbacks and notifications in the revised LAMP contingent upon minor changes; and

WHEREAS, on 9 February 2018, the Central Valley Water Board notified Tulare County and interested persons of its intent to approve the LAMP, and provided them with an opportunity for public hearing, and an opportunity to submit comments and recommendations, both on the LAMP and checklist; and

WHEREAS, on 5 April 2018, the Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to this action.

Therefore, be it RESOLVED, that the Central Valley Water Board hereby approves the Local Agency Management Program submitted by the Tulare County Resource Management Agency and Tulare County Environmental Health Division.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the Central Valley Water Board, on 5 April 2018.

Original Signed By

_____

PAMELA C. CREEDON, Executive Officer

BEFORE THE BOARD OF SUPERVISORS
COUNTY OF TULARE, STATE OF CALIFORNIA

IN THE MATTER OF THE LOCAL AGENCY MANAGEMENT PROGRAM (LAMP) AND AMENDMENTS TO THE ORDINANCE CODE OF TULARE COUNTY (PZC 18-001)	))))	**Resolution No. 2018-0084** **Ordinance No. 3524**

UPON MOTION OF SUPERVISOR CROCKER, SECONDED BY SUPERVISOR ENNIS, THE FOLLOWING WAS ADOPTED BY THE BOARD OF SUPERVISORS, AT AN OFFICIAL MEETING HELD FEBRUARY 6, 2018, BY THE FOLLOWING VOTE:

AYES: SUPERVISORS CROCKER, VANDER POEL, SHUKLIAN, WORTHLEY AND ENNIS
NOES: NONE
ABSTAIN: NONE
ABSENT: NONE

ATTEST: MICHAEL C. SPATA
COUNTY ADMINISTRATIVE OFFICER/
CLERK, BOARD OF SUPERVISORS

BY: _____
Deputy Clerk

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On February 6, 2018:

1. Held a Public Hearing at 9:30 a.m. or shortly thereafter; and
2. Determined the Tulare County Local Agency Management Program (LAMP) for Onsite Wastewater Treatments Systems (OWTS), including required amendments to the Ordinance Code, is exempt from the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, Title 14, Division 6, Chapter 3, Article 17 (Exemption for a Certified State Regulatory Program); and
3. Adopted the proposed Tulare County Local Agency Management Program (LAMP); and
4. Waived the second reading and adopted the proposed Amendments to the Ordinance Code of Tulare County as follows:

A. Pertaining to sections 7-01-1320 through 7-01-1740 regarding minimum lot size, set back, and testing requirements for onsite wastewater treatment systems under the local agency management program.

B. Pertaining to section 4-13-1520 for locating effluent systems near surface water intake points; and

5. Authorized the Chairman to sign any and all necessary Amendments under the Ordinance Code of Tulare County; and

6. Directed the Clerk of the Board to publish once in the Visalia Times-Delta newspaper the summary of the ordinance amendments with the names of the Board of Supervisors voting for and against the amendment and to post a certified copy of the full ordinance amending the Tulare County Ordinance Code No. No. 352 with the names of the Board of Supervisors voting for and against the amendment, within fifteen (15) days as required by Section 25124 et. Seq; and

7. Directed the Environmental Assessment Officer of the Tulare Resource Management Agency to file a Notice of Exemption with the Tulare County Clerk; and

8. Authorized the Director of the Resource Management Agency, or designee, to make appropriate clerical revisions to the Tulare County LAMP, Ordinance Amendments and associated project documents.

RMA

HAR
2/6/2018

Local Agency Management Program for Onsite Wastewater Treatment Systems Tulare County, California

Tulare County
County Administrative Office
2800 W Burrel Avenue
Visalia, CA 93291

http://www.tularecounty.ca.gov/county/

JANUARY 2018

Introduction and Background

Introduction

Onsite Wastewater Treatment Systems (OWTS) are currently regulated by State law. California Water Code sections 13290 et. seq. authorize a local agency to adopt or retain regulations and standards for OWTS that are at least equally protective of the public health or the environment than state laws and regulations. This LAMP has been prepared in accordance with the requirements of the State Water Resources Control Board's (SWRCB) Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems, dated June 19, 2012, also referred to as the "OWTS Policy", with the intention of obtaining the SWRCB and the Central Valley Regional Water Quality Control Board (RWQCB) delegation to regulate OWTS in the incorporated and unincorporated areas of Tulare County. This document presents the proposed Local Agency Management Program (LAMP) pertaining to the oversight of onsite wastewater treatment systems (OWTS) within the County of Tulare, California.

While the Tulare County Health Officer has designated the Director of the Public Health Services Department as a Deputy Health Officer for the purpose of enforcing State and local environmental health law, the County of Tulare Resource Management Agency (RMA) and the Environmental Health Division (EHD) of the Health and Human Services Agency are the regulatory agencies 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 dispersal requirements associated with land use modifications such as subdivisions, parcel splits, and lot line adjustments. The EHD regulates these elements within the various cities within Tulare County.

An OWTS may consist of tanks, treatment and dispersal components, and dispersal 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 the RMA and EHD to develop and adopt ordinances, regulations, and orders pertaining to environmental health and sanitation and the design and permitting of Onsite Wastewater Treatment Systems OWTS is established in the California Health and Safety Code, Section 101000 et seq. and the Ordinance Code of Tulare County Part IV, Chapters 1, 13 and 15 and Part VII, Chapters 1 and 15.

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. EHD) 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 Tulare Board of Supervisors adopted the code entitled "California Plumbing Code, Title 24, California Code of Regulations, Part 5, 2016 Edition," together with appendices thereto, as published by the International Code Council, as adopted and modified by the State Building Standards Code by the State Building Standards Commission pursuant to Health and Safety Code section 17922, and as amended by the provisions of this Ordinance Code, is hereby referred to, adopted and made a part of this Article with the same effect as if fully set forth herein and is hereby adopted as the Plumbing Code of the County of Tulare, and all the provisions thereof shall apply to all of the unincorporated territory of the County of Tulare. Additionally, Tulare County Code Part VII, Chapters 1 and 15 regulate various aspects of OWTS design, construction and permitting and Part IV addresses setbacks from domestic and public water system wells.

In order to comply with the Requirements of the Statewide OWTS policy, Tulare County has updated the applicable County Code sections and developed a guidance manual (On-site Wastewater Management Guidance Manual (Manual)) for the design and construction of OWTS. The Manual is also intended to complement Tulare County Code Parts IV and VII by providing additional requirements regarding the OWTS permitting process, site evaluation requirements, design submittal requirements, in such a manner that compliance with these Chapters can be easily achieved.

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 (RWQCB) -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 Tulare County LAMP for OWTS in Tulare County. The LAMP consists of an Introduction and three parts:

Introduction
Part One: Responsibilities and Duties
Part Two: Regulation of Onsite Wastewater Treatment Systems
Part Three: Tulare County OWTS Guidance Manual

Education and Outreach and Collaboration Tulare County will make literature for proper operation and use of septic systems available to the general public in its offices and on its website.

Tulare County will collaborate with other entities regarding Regional Salt and Nutrient Management Plans as necessary.

Tulare County will coordinate with Watershed Management Groups working within the watersheds in Tulare County.

Adequacy of Capacity at Septage Receiving Stations – Tulare County septage goes to any three different facilities; City of Visalia's Waste Water Treatment Plant, City of Tulare Waste Water Treatment Facility and the City of Porterville Waste Water Treatment Facility. Each of these facilities have indicated they have adequate capacity to accommodate current and future septage receiving and processing needs for the County, and both the Tulare and Visalia facilities recently underwent significant capacity expansions.

Adequacy of LAMP per the SWRCB OWTS policy Altogether, Tulare County 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.

PART ONE

RESPONSIBILITIES AND DUTIES

Section 3 of the OWTS Policy describes the Local Agency Requirements and Responsibilities. The following identifies how Tulare County will implement each section of the Policy. Tulare County will implement this Local Area Management Program (LAMP) in accordance with Tier 2 of the Policy once the LAMP is approved by the Central Valley Regional Water Quality Control Board (RWQCB.) Tulare County will adhere to the LAMP including all requirements for monitoring and reporting. Any modifications to the LAMP must first be submitted to the RWQCB with a written notice of the intended modifications. The modifications cannot be implemented until RWQCB 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 Tulare 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 required.

Annual Report The annual report will be submitted to the RWQCB 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, and means of resolution.
2. Application and registrations of septic tank cleaners.
3. Number, location, description and risk tier of all OWTS permits (new and replacement).
4. Number, location, description and risk tier of all variances.
5. Water Quality Monitoring identified in the OWTS Policy (9.3). G72
6. Groundwater monitoring data will be submitted in a format for inclusion into GeoTracker, and surface water monitoring shall be submitted to California Environmental Data Exchange Network (CEDEN).

Permanent Records Tulare County will retain all permanent records and will make them available within ten (10) working days upon written request by the RWQCB. All permitting actions are also available to the public on from Tulare County upon request.

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

Fifth Year Report

Every fifth-year Tulare County 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 and identify any changes in the LAMP that may be required to address impacts from OWTS.

Notifications

Tulare County will notify within 72 hours both State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) and the owner of a public water system of any OWTS failures within the horizontal setback of a public supply well or within 2,500 feet of an intake point for a surface water treatment plant. In addition, Tulare County will notify public water systems identified by DDW 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. Tulare County will maintain a contact list for each water system to make these notifications.

Referral of Systems Not Covered by the LAMP Tulare County will refer all applications of systems not covered by this LAMP (Part 2 Section 101.3) to the RWQCB for coverage under an applicable program in the RWQCB.

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

1. Regulated small water systems in Tulare County (SWS).
2. Community Water Systems submit monitoring data to the State Water Board Division of Drinking Water; this data is accessible electronically if needed through state databases.
3. Wells within Tulare County that are monitored as part of the Statewide Groundwater Ambient Monitoring and Assessment (GAMA) program.
4. Domestic wells sampled at the request of property owner at the time of well installation.

Corrective Actions: Corrective Actions will be enforced through Tulare County Code Part I, Chapter 23, Administrative Fines. The Director of the Tulare County Resource Management Agency, the Director of the Tulare County Health and Human Services Agency, or the County Health Officer, or their designees shall have the authority and powers necessary to determine whether a violation exists.

Existing OWTS: There are OWTS countywide that predate adopted standards and within prescriptive, Tier 1 setbacks, or within setbacks. These existing systems are in Tier 0 of the OWTS Policy and are not covered under this LAMP until such time as these existing systems fail. A failing system shall mean either:

1. 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. septic tank with compartment baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating.

Once a failed OWTS has been identified, the system will be repaired under the requirements of this LAMP and the Manual.

Variances: Variances for new installations and repairs will be in substantial conformance to the Policy, to the greatest extent practicable. Variances cannot be authorized for:

1. Cesspools of any kind or size.
2. OWTS receiving a projected flow over 3,500 gallons per day.
3. OWTS that utilize any form of effluent dispersal that discharges on or above the post

installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond.

4. Slopes greater than 30 percent without a slope stability report approved by a registered engineering geologist or civil engineer.
5. Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 1.0.
6. OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.
7. OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks.
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. 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. (*CPC 713.4*) 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.

Maintenance Districts – Maintenance Districts for the operation, maintenance and monitoring of domestic OWTS is outside the scope of this LAMP.

<u>Assessment Program</u>

Tulare County will maintain a water quality assessment program to determine the general operational 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 identified with shallow soils, high domestic well usage, fractured rock, poorly drained soils, and surface waters vulnerable to pollution.

This program will help identify potential areas for changes to existing OWTS management practices. 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:

1. Review of public system sampling reports done by the local agency or another municipality responsible for the public system.
2. Reservoir or stream water quality sampling data for rivers or other studies.

3. Water quality testing reports done at the time of new well development, if those are reported.
4. Receiving water sampling performed as a part of a NPDES permit.
5. Groundwater sampling performed as part of Waste Discharge Requirements.
6. Groundwater data collected as part of the Groundwater Ambient Monitoring and Assessment Program and available in the GeoTracker Database.

PART TWO

Regulation of Onsite Wastewater Treatment Systems

Part Two of this LAMP describes the requirements for the siting, design, and construction of OWTS in Tulare County as defined in Appendix H of the 2016 California Plumbing Code and in conformance with Tier 2 requirements.

Section 100 – General OTWS System Requirements

101.1 Applicability

Part Two of the LAMP provides general guidelines for the site evaluations, materials, design and installation of OWTS.

101.2 General Requirements

Where permitted by Section 713.0 of the 2016 California Plumbing Code, the building sewer shall be permitted to be connected to a private sewage dispersal system in accordance with the provisions of this Manual. The size of a system shall be determined on the basis of location, soil porosity, and groundwater level, and shall be designed to receive all sewage from the property. All new private sewage dispersal systems approved by the EHD and permitted by the RMA, except as otherwise approved, shall consist of a septic tank with effluent discharging into a subsurface dispersal field.

Repairs to existing private sewage dispersal systems shall consist of a septic tank with effluent discharging into a subsurface dispersal field, except as otherwise approved due to physical constraints that would prevent the use of this type of system.

The RMA shall be permitted to grant exceptions to the provisions of this LAMP for repairs of existing OWTS and for permitted structures that have been destroyed due to fire or natural disaster and that cannot be reconstructed in compliance with these provisions provided that such exceptions are the minimum necessary.

101.3 Quantity and Quality

Where the quantity or quality of the sewage is:

1. in excess of 3,500 gallons per day design flow
2. identified by the EHD as wastewater strength 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

3. required to provide nitrogen reduction to mitigate:
    a. for setbacks from public water system intakes and wells
    b. allowable average density requirements for new land developments utilizing private sewage dispersal systems as defined in Tier 1 of the OWTS Policy
    c. for systems in areas with high domestic well usage
    d. for systems in areas with OWTS density
    e. or other condition or criteria identified by the RMA or EHD and/or the Regional Water Quality Control Board (RWQCB) including but not limited to RV dump stations;
4. Systems proposing reduced setbacks from seasonal high groundwater through the use of supplemental treatment, soil import or any other method not described in the LAMP.

such that the above system described in Section 1.2 cannot be expected to function satisfactorily for commercial, agricultural, and industrial plumbing systems; for installations where appreciable amounts of industrial or indigestible wastes are produced; for occupancies producing abnormal quantities of sewage or liquid waste; or where grease interceptors are required by other parts of this code, the method of sewage treatment and dispersal shall be first approved and permit issued by the RWQCB. Special sewage dispersal systems for minor, limited, or temporary uses shall be first approved by the RMA.

101.4 Septic Tank and Dispersal Field Systems.

Dispersal systems shall be designed to utilize the most porous or absorptive portions of the soil formation. Where the groundwater level extends to within 12 feet (3658 mm) or less of the ground surface or where the upper soil is porous and the underlying stratum is rock or impervious soil, a septic tank and dispersal field system shall be installed maintaining at least 5 feet (1524mm) from evidence of seasonal high groundwater. In no case, will the total depth of the dispersal field exceed 10 feet (3048mm) from the natural existing ground surface.

101.5 Flood Hazard Areas

Dispersal systems shall be located outside of flood hazard areas.

Exception: Where suitable sites outside of flood hazard areas are not available, dispersal systems shall be permitted to be located in flood hazard areas on sites where the effects of inundation under conditions of the design flood are minimized.

101.6 Design

Private sewage dispersal systems shall be so designed that subsurface drain fields, equivalent to not less than 100 percent of the required original system, shall be permitted to be installed where the original system cannot absorb all the sewage. No division of the lot or erection of structures on

the lot shall be made where such division or structure requires the use of a seepage pit or impairs the usefulness of the 100 percent expansion area of the subsurface drain field.

101.7 Capacity

No property shall be improved in excess of its capacity to properly disperse sewage effluent by the means provided in this LAMP and applicable Tulare County Code.

Exception: The RMA can, at its discretion, approve an exception for the repair of an OWTS through the County variance process.

101.8 Location

No private sewage dispersal system, or part thereof, shall be located in any lot other than the lot that is the site of the building or structure served by such private sewage dispersal system, nor shall any private sewage dispersal system or part thereof be located at any point having less than the minimum distances indicated in Table 101.8 of this LAMP.

Nothing contained in this code shall be construed to prohibit the use of all or part of an abutting lot to provide additional space for a private sewage dispersal system or part thereof where proper cause, transfer of ownership, or change of boundary not in violation of other requirements has been first established to the satisfaction of the RMA. The instrument recording such action shall constitute an agreement with the RMA, which shall clearly state and show that the areas so joined or used shall be maintained as a unit during the time they are so used. Such agreement shall be recorded in the office of the County Recorder as part of the conditions of ownership of said properties and shall be binding on heirs, successors, and assigns to such properties. A copy of the instrument recording such proceedings shall be filed with the RMA.

Table 101.8
Minimum Required Setback Distances for OWTS

Site Feature	Septic Tank	Dispersal Field	Seepage Pit
Non-Public Water Supply Wells and Springs	100 feet	100 feet[1]	150 feet[1]
Public Water Supply Wells and Springs	100 feet[3]	150 feet[1, 2, 3, 10]	150 feet[1, 2, 3, 10]
Property line adjoining private property (with domestic well)	25 feet	50 feet	75 feet
Property line adjoining private property (with municipal water)	5 feet	5 feet	75 feet
Watercourses: -General -Between 1,200 to 2,500 feet from a Public Water System intake -Within 1,200 feet from a Public Water System intake	 100 feet[2, 10] 100 feet 100 feet	 100 feet[2, 10] 200 feet 400 feet	 150 feet[2, 10] 200 feet 400 feet
Drainage way/swale, ephemeral streams, creeks, unlined irrigation ditch or canal, and other flowing or surface bodies of water	100 feet[4]	100 feet[4]	150 feet[4]
Lakes, ponds, stormwater/recharge basins, and other surface water bodies	100 feet	200 feet	200 feet
Lined ditches, lined canals, lined watertight culverts	15 feet	15 feet	15 feet
Residential on-site stormwater basins	15 feet	15 feet	15 feet
Seepage Pits[4]	5 feet	5 feet	12 feet
Dispersal field[4]	5 feet	4 feet[6]	5 feet
Cuts or steep embankments (from top of cut)	10 feet	4xh[7, 8]	4xh[7, 8]
Steep slopes (from break of slope)	10 feet	4xh[7, 8]	4xh[7, 8]
Unstable Land Mass[9]	100 feet	100 feet	100 feet

1. Drainage piping shall clear domestic water supply wells by not less than 50 feet. This distance shall be permitted to be reduced to not less than 25 feet where the drainage piping is constructed of materials approved for use within a building.
2. 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 of flowing water body. Where the effluent dispersal system is located more than 1,200 but less than 2,500 feet from a public water systems' surface water intake point, the dispersal system shall be no less than 200 feet from the high-water mark of the reservoir, lake, or flowing water body.
3. The horizontal separation distances are generally considered adequate where a significant layer of unsaturated, unconsolidated sediment less permeable than sand is encountered between ground surface and groundwater. These distances are based on present knowledge and past experience. Local conditions may require greater separation distances to ensure groundwater quality protection.
4. These minimum clear horizontal distances shall also apply between dispersal fields, seepage pits, and the mean high-tide line.
5. Where dispersal fields, seepage pits, or both are installed on sloping ground, the minimum horizontal distance between any part of the leaching system and ground surface shall be 15 feet.
6. Plus 2 feet for each additional 1 foot of depth in excess of 1 foot below the bottom of the drain line.
7. h equals the height of the cut or embankment, in feet. The required setback distance shall not be less than 25 feet nor more than 100 feet.
8. Steep slope is considered to be land with a slope of > 30% and distinctly steeper (at least 20% steeper) than the slope of the adjacent tank or dispersal field area.
9. 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.
10. Where 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'.

101.9 Building Permit

Where there is insufficient lot area or improper soil conditions for sewage dispersal for the building or land use proposed, and the RMA so finds, no building permit shall be issued and no private sewage dispersal shall be permitted. Where space or soil conditions are critical, no building permit shall be issued until engineering data and test reports satisfactory to the RMA and EHD have been submitted and approved.

101.10 Additional Requirements

Nothing contained in this LAMP shall be construed to prevent the RMA from requiring compliance with additional requirements than those contained herein, where such additional requirements are essential to maintain a safe and sanitary condition.

101.11 Alternate Systems

Alternative dispersal systems shall be permitted by special permission of the RMA. 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 are not covered under this LAMP.

Section 200 – Septic Tanks

201.1 General

The liquid capacity of septic tanks shall comply with Table 201.1 in this LAMP as determined by the number of bedrooms or apartment units in dwelling occupancies and the estimated waste/sewage design flow rate or the number of plumbing fixture units as determined from Table 702.1 of the 2016 California Plumbing Code, whichever is greater in other building occupancies.

Table 201.1 Capacity of Septic Tanks[1,2,3,4]

Single Family Dwellings – Number of Bedrooms	Multiple Dwelling Units or Apartments – One Bedroom Ea.	Minimum Septic Tank Capacity (Gallons)
1 or 2	-	750
3	-	1000
4	2 units	1200
5 or 6	3	1500
-	4	2000
-	5	2250
-	6	2500
-	7	2750
-	8	3000
-	9	3250
-	10	3500

For SI units: I gallon= 3.785 L 3250

Notes:

1 Extra bedroom, 150 gallons (568 L) each.

2 Extra dwelling units over 10: 250 gallons (946 L) each.

3 Extra fixture units over 100: 25 gallons (94.6 L) per fixture unit.

4 Septic tank sizes in this table include sludge storage capacity and the connection of domestic food waste disposers without further volume increase.

TABLE 202 Estimate of Wastewater Design Flow Rates	
Type of Business or Facility	**Minimum Flow (Gallons/ Day)**
Bathhouses and swimming pools	10 (per person)
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 25 15 (per 8 hour shift)
Department store with public bathrooms	400
Dentist office -per wet chair -add per non-wet chair	 200 50
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/Poolhouse (no kitchen)	150 per Bedroom
Retail stores -for customer -add for each employee	 -Use comparable flows from similar businesses -15 (per 8-hr shift)
Shopping center	2 (per parking space)
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 additional
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)

Table 203: 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 LAMP		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

Table 204 Design Soil Application Rates (Source: California State Water Resources Control Board Onsite Wastewater OWTS Policy, June 19,2012)			
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	Special Design
	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	Special Design
	Prismatic, Blocky, Granular	Weak	0.2
		Moderate, Strong	0.4
Loam	Massive	Structureless	0.2
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Silt Loam	Massive	Structureless	Special Design
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	0.4
		Moderate, Strong	0.6
Sandy Clay Loam, Clay Loam, Silty Clay Loam	Massive	Structureless	Special Design
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	0.2
		Moderate, Strong	0.4
Sandy Clay, Clay, or Silty Clay	Massive	Structureless	Special Design
	Platy	Weak, Moderate, Strong	Special Design
	Prismatic, Blocky, Granular	Weak	Special Design
		Moderate, Strong	0.2

Section 300 – Area of Dispersal Fields and Seepage Pits

301 General

The minimum effective dispersal area in dispersal fields in square feet (ft^2), and in seepage pits in square feet (ft^2) of sidewall, shall be predicated on the design flow in gallons (liters) for the proposed facility found in Table 202 in this LAMP, estimated waste/sewage flow rate, or whichever is greater, and shall be in accordance with Table 204 in this LAMP as determined for the soil found in the excavation or soil application rate derived from percolation testing per Section 401.3, and shall be as follows:

1. Where dispersal fields are installed, not less than 150 square feet (13.9 m^2) of trench bottom shall be provided for each system exclusive of any hard pan, rock, clay, or other impervious formations. Trench width is limited to a maximum of 36 inches. The first foot of both sidewalls underneath the pipe is not allowed to be used in calculating the square footage of the dispersal area. The sidewall area allowed in the calculation is not to exceed 36 inches when computing dispersal area per lineal foot of trench unless approved within an alternative design system.
2. Where leaching beds are permitted in lieu of trenches, the area of each such bed shall be not less than 50 percent greater than the tabular requirements for trenches. Perimeter sidewall area in excess of the required 12 inches (305 mm) and not exceeding 36 inches (914 mm) below the leach line shall be permitted to be added to the trench bottom area where computing dispersal areas.
3. No excavation for a leach line or leach bed shall be located within 5 feet (1524 mm) of evidence of the high groundwater, in excess of ten feet from the natural existing ground surface, nor to a depth where sewage is capable of contaminating the underground water stratum that is usable for domestic purposes.
4. The minimum effective dispersal area in any seepage pit shall be calculated as the excavated sidewall area below the inlet exclusive of any hardpan, rock, clay, or other impervious formations. The minimum required area of porous formation shall be provided in one or more seepage pits. No excavation shall extend within 10 feet (3048 mm) neither of the water table nor to a depth where sewage is capable of contaminating underground water stratum that is usable for domestic purpose.
5. Leaching chambers that comply with IAPMO PS 63 and bundled expanded polystyrene synthetic aggregate units that comply with IAPMO IGC 276 shall be sized using the required area calculated using Table 204 with a 1.00 multiplier.

Section 400 – Percolation Testing

401.1 Dispersal Field and Seepage Pit Sizes

Where practicable, dispersal field and seepage pit sizes shall be computed by percolation tests using the calculation method described in 401.3, unless use of Table 204 is approved by the RMA for a particular site.

401.2 Dispersal Qualities

In order to determine the dispersal qualities of seepage pits and of soils where the texture, soil structure, and/or grade is questionable as they pertain to Table 204, the proposed site shall be subjected to percolation tests acceptable to the RMA as described in the Section 401.4.

401.3 Soil Application Rates

Soil application rates will be determined using the Table 204 and/or the following equation to convert the average percolation rate (or infiltration rate) into the application rate [gallons-per-day (gpd)-persq.ft.]: where Q = application rate, t = average percolation rate.

$$Q = \frac{5}{\sqrt{\mathrm{t}}}$$

EXAMPLE: t = 75 mpi, therefore Q = 0.58 gpd/sq.ft.

The average of all percolation tests in the leaching area shall not exceed two hundred (200) minutes per inch (mi./inch). No single percolation test shall exceed two hundred-forty (240) mi./inch.

401.4 Soil Application Rates Calculated from Percolation Tests

1. Percolation tests may be performed by a Qualified Professional as defined in Section 1300 of the LAMP, to provide additional and appropriate dispersal application rates. Percolation tests are to be performed during the site evaluation process at the discretion of either the RMA or the Qualified Processional and when soil conditions warrant.
2. When percolation tests are utilized the following requirements will apply:
    a. Test hole preparation requirements:
        i. for dispersal fields
            1. Unless otherwise indicated by the RMA, there shall be a minimum of 3 percolation test holes when the disposal area and replacement area are in the same proximity as determined by the RMA; 6 percolation test holes may be required when separate areas are chosen for primary and replacement systems. Additional test holes may be required by the RMA to completely identify a suitable area for a dispersal system.
            2. Percolation test holes shall be 6 inches in diameter.
            3. Unless otherwise approved by the RMA, the test hole bottom depth shall be deeper than the proposed dispersal system bottom depth and within the most restrictive strata of useable soil beneath the dispersal field.

4. The percolation test hole sidewall in the test section should be roughened to remove any smearing or compaction caused by the hole excavation process. All loose soil shall be removed and 2 inches of pea gravel or other material approved by the RMA shall be placed in the bottom of the hole.
5. In order to prevent silting of the bottom of the hole and sidewall cave-in, a 1-inch sidewall gravel pack shall be used. The gravel pack shall be perforated plastic pipe in 12 inch (or longer) sections

ii. for seepage pits

1. Unless otherwise indicated by the RMA, there shall be a percolation test performed on every seepage pit proposed. Additional test holes may be required by the RMA to completely identify a suitable area for a dispersal system.

b. Presoak requirement

i. The hole shall be filled with clean water to a minimum depth of 12 inches above the base of the hole. The presoak shall be maintained for a minimum of 4 hours for sandy soil with no clay and 24 hours for all other soils.

c. Test measurement requirements

i. Percolation tests shall be measured to the nearest 1/8-inch from a fixed point.

ii. The percolation test shall begin within 4 hours following completion of the presoak. Adjust the water level to 6 inches (12 inches for seepage pits) over the pea gravel bottom and begin the test. This may require adding or removing water to adjust the level.

iii. Readings shall be taken at 30-minute intervals. Refill as necessary to maintain 6 inches of water over the pea gravel bottom at each interval. Readings shall be taken until two consecutive readings do not vary by more than ten percent per reading, with a minimum of 3 readings. The last 30-minute interval is used to compute the percolation rate. If 4 inches or more of water seeps from the hole during the 30minute interval, readings may be taken at 10 minute intervals. Readings shall be taken until 2 consecutive readings do not vary by more than ten percent per reading with a minimum of 3 readings. The last 10-minute interval is used to compute the percolation rate.

Section 500 – Septic Tank Construction

501.1 Plans

The RMA will accept those products which are certified by International Association of Plumbing and Mechanical Officials (IAPMO), National Sanitation Foundation (NSF), or by other recognized listing agencies.

501.2 Design

Septic tank design shall be such as to produce a clarified effluent consistent with accepted standards and shall provide adequate space for sludge and scum accumulations.

501.3 Construction

Septic tanks shall be constructed of solid durable materials not subject to excessive corrosion or decay and shall be watertight.

501.4 Compartments

Septic tanks shall have not less than two compartments unless otherwise approved by the RMA. The inlet compartment of any septic tank shall be not less than two-thirds of the total capacity of the tank, nor less than 500 gallons (1892 L) liquid capacity, and shall be not less than 3 feet (914 mm) in width and 5 feet (1524 mm) in length. Liquid depth shall be not less than 2 1/2 feet (762 mm) nor more than 6 feet (1829 mm). The secondary compartment of a septic tank shall have a capacity of not less than 250 gallons (946 L) and a capacity not exceeding one-third of the total capacity of such tank. In septic tanks having a capacity equal or greater to 1500 gallon (5678 L), the secondary compartment shall be not less than 5 feet (1524 mm) in length.

501.5 Access

Access to each septic tank shall be provided by not less than two manholes 20 inches (508 mm) in minimum dimension or by an equivalent removable cover slab. One access manhole shall be located over the inlet and one access manhole shall be located over the outlet. Where a first compartment exceeds 12 feet (3658 mm) in length, an additional manhole shall be provided over the baffle wall.

501.6 Pipe Opening Sizes

The inlet and outlet pipe openings shall not be larger in size than the connecting sewer pipe. The vertical leg of round inlet and outlet fittings shall not be less in size than the connecting sewer pipe nor less than 4 inches (102 mm). A baffle-type fitting shall have the equivalent cross-sectional area of the connecting sewer pipe and not less than a 4 inch (102 mm) horizontal dimension where measured at the inlet and outlet pipe inverts.

501.7 Pipe Extension

The inlet and outlet pipe or baffle shall extend 4 inches (102 mm) above and not less than 12 inches (305 mm) below the water surface. The invert of the inlet pipe shall be at a level not less than 2 inches (51 mm) above the invert of the outlet pipe.

501.8 Free Vent Area

Inlet and outlet pipe fittings or baffles and compartment partitions shall have a free vent area equal to the required cross-sectional area of the house sewer or private sewer discharging therein

to provide free ventilation above the water surface from the dispersal field or seepage pit through the septic tank, house sewer, and stack to the outer air.

501.9 Sidewalls

The sidewalls shall extend not less than 9 inches (229 mm) above the liquid depth. The cover of the septic tank shall be not less than 2 inches (51 mm) above the back-vent openings.

501.10 Partitions and Baffles

Partitions or baffles between compartments shall be of solid, durable material and shall extend not less than 4 inches (102 mm) above the liquid level. The transfer port between compartments shall be a minimum size equivalent to the tank inlet, but in no case less than 4 inches (102 mm) in size, shall be installed in the inlet compartment side of the baffle so that the entry into the port is placed 65 percent to 75 percent in the depth of the liquid. Wooden baffles are prohibited.

501.11 Structural Design

The structural design of septic tanks shall comply with the following requirements:

1. Each such tank shall be structurally designed to with-stand all anticipated earth or other loads. Septic tank covers shall be capable of supporting an earth load of not less than 500 pounds per square foot (lb/ft2) (2441 kg/m2) where the maximum coverage does not exceed 3 feet (914 mm).
2. In flood hazard areas, tanks shall be anchored to counter buoyant forces during conditions of the design flood. The vent termination and service manhole of the tank shall be not less than 2 feet (610 mm) above the design flood elevation or fitted with covers designed to prevent the inflow of floodwater or the outflow of the contents of the tanks during conditions of the design flood.

501.12 Manholes

Septic tanks shall have weathertight manholes accessible by extending the manhole openings to grade if installed under concrete or blacktop paving, or within 6-inches of finished grade if under soil cover in a manner acceptable to the RMA.

501.13 Materials.

The materials used for constructing a septic tank shall be in accordance with the following:

1. Materials used in constructing a concrete septic tank shall be in accordance with applicable standards.
2. The use of steel septic tank shall be prohibited.

3. Septic tanks constructed of alternate materials shall be permitted to be approved by the RMA where in accordance with approved applicable standards. Wooden septic tanks shall be prohibited.

501.14 Prefabricated Septic Tanks

Prefabricated septic tanks shall comply with the following requirements:

1. Manufactured or prefabricated septic tanks shall comply with approved applicable standards and be listed by a recognized listing agency. Prefabricated bituminous coated septic tanks shall comply with UL 70.

Section 600 Dispersal Fields

H 601.1 Distribution Lines

Distribution lines shall be constructed of perforated high- density polyethylene pipe, perforated ABS pipe, perforated PVC pipe, or other approved materials, provided that approved openings are available for distribution of the effluent into the trench area.

601.2 Filter Material

Before placing filter material or drain lines in a prepared excavation, smeared or compacted surfaces shall be removed from trenches by raking to a depth of 1 inch (25.4 mm) and the loose material removed. Clean stone, gravel, slag, or similar filter material acceptable to the RMA, varying in size from 3/4 of an inch to 2 1/2 inches (19.1 mm to 64 mm), shall be placed in the trench to the depth and grade required by this section. Drain pipe shall be placed on filter material in an approved manner.

The drain lines shall then be covered with filter material to the minimum depth required by this section, and this material covered with untreated building paper, straw, or similar porous material to prevent closure of voids with earth backfill. No earth backfill shall be placed over the filter material cover until after inspection and acceptance.

Exception: Listed or approved plastic leaching chambers and bundled expanded polystyrene synthetic aggregate units shall be permitted to be used in lieu of pipe and filter material. Chambers and bundled expanded polystyrene, synthetic aggregate unit installations shall follow the rules for dispersal fields, where applicable, and shall be in accordance with the manufacturer's instructions.

601.3 Grade Board

A grade board staked in the trench to the depth of filter material shall be utilized where the distribution line is constructed with drain tile or a flexible pipe material that will not maintain alignment without continuous support.

601.4 Seepage Pits

Where seepage pits are used in combination with dispersal fields, the filter material in the trenches shall terminate not less than 5 feet (1524 mm) from the pit excavation, and the line extending from such points to the seepage pit shall be approved pipe with water-tight joints.

601.5 Distribution Boxes

Where two or more drain lines are installed, an approved distribution box of sufficient size to receive lateral lines shall be installed at the head of each dispersal field. The inverts of outlets shall be level, and the invert of the inlet shall be not less than 1 inch (25.4 mm) above the outlets. Distribution boxes shall be designed to ensure equal flow and shall be installed on a level concrete slab in natural or compacted soil.

601.6 Laterals

Laterals from a distribution box to the dispersal field shall be approved pipe with watertight joints. Multiple dispersal field laterals, where practicable, shall be of uniform length.

601.7 Connections

Connections between a septic tank and a distribution box shall be laid with approved pipe with watertight joints on natural ground or compacted fill.

601.8 Dosing Tanks

Where the quantity of sewage exceeds the amount that is permitted to be disposed in 500 lineal feet (152.4 m) of leach line, a dosing tank shall be used. Dosing tanks shall be equipped with an automatic siphon or pump that discharges the tank once every 3 or 4 hours. The tank shall have a capacity equal to 60 to 75 percent of the interior capacity of the pipe to be dosed at one time. Where the total length of pipe exceeds 1000 lineal feet (304.8 m), the dosing tank shall be provided with two siphons or pumps dosing alternately and each serving one half of the leach field.

601.9 Construction

Dispersal fields shall be constructed in accordance with Table 601.9.

Minimum spacing between trenches or leaching beds shall be not less than 4 feet (1219 mm) plus 2 feet (610 mm) for each additional foot (305 mm) of depth in excess of 1 foot (305 mm) below the bottom of the drain line. Distribution drain lines in leaching beds shall be not more than 6 feet (1829 mm) apart on centers, and no part of the perimeter of the leaching bed shall exceed 3 feet (914 mm) from a distribution drain line. Dispersal fields, trenches, and leaching beds shall not be paved over or covered by concrete or a material that is capable of reducing or inhibiting a possible evaporation of sewer effluent.

TABLE 601.9 GENERAL DISPOSAL FIELD REQUIREMENTS		
	MINIMUM	**MAXIMUM**
Number of drain lines per field	2	–
Length of each line	–	100 feet
Bottom width of trench	18 inches	36 inches
Spacing of lines, center-to-center	6 feet	–
Depth of earth cover of lines (preferred -18 inches)	12 inches	9 feet
Grade of lines	Level	3 inches per 100 feet
Filter material under drain lines	12	–
Filter material over drain lines	2 inches	–

601.10 Joints

Where necessary on sloping ground to prevent excessive line slope, leach lines or leach beds shall be stepped. The lines between each horizontal section shall be made with watertight joints and shall be designed so each horizontal leaching trench or bed shall be utilized to the maximum capacity before the effluent shall pass to the next lower leach line or bed. The lines between each horizontal leaching section shall be made with approved watertight joints and installed on natural or unfilled ground.

Section 700 Seepage Pits

701.1 Approval

Seepage pit systems are systems designed to be used in areas of the County where subsoils are clay, clay pan, fragipan, hard pan and do not offer opportunities to install typical leach trench disposal type of systems. It is generally acknowledged that the use of these systems addresses only disposal requirements as opposed to treatment and disposal.

1. Seepage pits shall be used only to service a single-family residence and only when the site is not approvable for installation of a standard or other special system.
2. At least one test boring to groundwater or ten (10) feet below the proposed design depth of the pits, whichever is shallower, shall be made in the lowest area of the proposed disposal area to evaluate soils. Additional test pits may be required at the discretion of the Division to determine the suitability of the site for on-site sewage disposal. All test borings shall be witnessed by the consultant.
3. Use of seepage pits in all other situations will require permitting approval through the RWQCB.

701.2 Capacity

The capacity of seepage pits shall be based on the quantity of liquid waste discharging thereinto and on the character and porosity of the surrounding soil, and shall be in accordance with Section 301.0 of the Manual.

701.3 Multiple Installations

Multiple seepage pit installations shall be served through an approved distribution box or be connected in series by means of a watertight connection laid on undistributed or compacted soil. The outlet from the pit shall have an approved vented leg fitting extending not less than 12 inches (305 mm) below the inlet fitting.

701.4 Construction

A seepage pit shall be circular in shape and shall have an excavated diameter of not less than 3 feet (1219 mm) and no more than 5 feet (2,031mm). The seepage pit shall be filled up to the concrete collar with leach rock or cobbles that are a minimum of three quarters (3/4") inches (19.1 mm) and two and one half (2,5") inches (64 mm) in diameter in any dimension or with other filter material approved by the RMA. The cobbles or filter material shall be washed clean so as to be free of debris and dirt.

701.7 Sidewall

A seepage pit shall have a minimum sidewall of 10 feet (3048 mm) below the inlet.

701.8 Lid

Approved-type one or two-piece reinforced concrete slabs of not less than 2500 lb/in2 (1 757 674 kg/m2) minimum compressive strength, not less than 5 inches (127 mm) thick, and designed to support an earth load of not less than 400 pounds per square foot (lb/ft2) (1953 kg/m2). Each such cover shall be provided with a 9 inch (229 mm) minimum inspection hole with plug or cover and shall be coated on the underside with an approved bituminous or other nonpermeable protective compound.

701.9 Location

The top of the cover shall be not less than 18 inches (457 mm) but not exceed 4 feet (1219 mm) below the surface of the ground.

701.10 Inlet Fitting A

90 degree "Tee" fitting or (approved equal) vented inlet fitting shall be provided in the seepage pit so arranged as to prevent the inflow from damaging the sidewall. The fitting shall be situated below the inspection hole in the lid.

Exception: Where using a one-concrete slab cover inlet, fitting shall be permitted to be a one-fourth bend fitting discharging through an opening in the top of the slab cover. On multiple seepage pit installations, the outlet fittings shall comply with Section 701.2 of this Manual.

Section 800 Cesspools

801.1 Cesspools

Cesspools are prohibited in the OWTS Policy. Existing cesspools are to be destroyed and replaced within 90 days with an appropriate permitted OWTS.

Section 900 Commercial or Industrial Special Liquid-Waste Dispersal

901.1 Interceptor.

Where liquid wastes contain excessive amounts of grease or lint that affect the operation of a private sewage dispersal system, an interceptor for such grease or lint shall be installed.

901.2 Installation

Installation of such interceptors shall comply with Section 1009.0 of this code, and their location shall comply with Table 101.8 of this LAMP.

901.3 Sampling Box

A sampling box shall be installed where required by the EHD.

901.4 Design and Structural Requirement

Interceptors shall be of approved design and be not less than two compartments. Structural requirements shall comply with Section H 501.0 of this appendix.

901.5 Location

Interceptors shall be located as close to the source as possible and be accessible for servicing. Necessary manholes for servicing shall be at grade level and be gastight.

901.6 Waste Discharge

Waste discharge from interceptors shall be permitted to be connected to a septic tank or other primary system or be disposed into a separate dispersal system.

901.7 Design Criteria A formula shall be permitted to be adapted to other types of occupancies with similar wastes.

Section 1000 Inspection and Testing

1001.1 Inspection

Inspection requirements shall comply with the following:

1. Applicable provisions of Section 105.0 of this code and this appendix shall be required. Plans shall be required in accordance with Section 103.3 of this code.

2. System components shall be properly identified as to manufacturer. Septic tanks or other primary systems shall have the rated capacity permanently marked on the unit.
3. Septic tanks or other primary systems shall be installed on dry, level, well-compacted soil.
4. Where design is predicated on soil tests, the system shall be installed at the same location and depth as the tested area.

1001.2 Testing

Testing requirements shall comply with the following:

1. Septic tanks or other primary components shall be filled with water to flow line prior to requesting inspection. Seams or joints shall be left exposed (except the bottom), and the tank shall remain watertight.
2. A flow test shall be performed through the system to the point of effluent dispersal. All lines and components shall be watertight. Capacities, required air space, and fittings shall comply with the provisions set forth in this appendix.

Section 1100 Abandoned Sewers and Sewage Dispersal Facilities

1101.1 Plugged and Capped

An abandoned building (house) sewer, or part thereof, shall be plugged or capped in an approved manner within 5 feet (1524 mm) of the property line.

1101.2 Fill Material

A cesspool, a septic tank, or a seepage pit that has been abandoned or has been discontinued otherwise from further use, or to which no waste or soil pipe from a plumbing fixture is connected, shall have the sewage removed therefrom and be completely filled with the earth, sand, gravel, concrete, or other approved material.

1101.3 Filling Requirements

The top cover or arch over the cesspool, septic tank, or seepage pit shall be removed before filling. The bottom of any tank in the system shall be perforated, such that it is no longer capable of holding liquid. Inspection of the destruction of the tank must occur prior to the filling of the tank. The filling shall not extend above the top of the vertical portions of the sidewalls or above the level of any outlet pipe until inspection has been called and the cesspool, septic tank, or seepage pit has been inspected. After such inspection, the cesspool, septic tank, or seepage pit shall be filled to the level of the top of the ground.

1101.4 Owner

No person owning or controlling a cesspool, septic tank, or seepage pit on the premises of such person or in that portion of any public street, alley, or other public property abutting such premises shall fail, refuse, or neglect to be in accordance with the provisions of this section or upon receipt of notice so to be in accordance with the RMA.

1101.5 Permittee

Where dispersal facilities are abandoned consequent to connecting any premises with the public sewer, the permittee making the connection shall fill all abandoned facilities in accordance with the RMA within 30 days from the time of connecting to the public sewer.

Section 1200 Drawings and Specifications

1201.1 General

The RMA shall be permitted to require the following information before a permit is issued for a private sewage dispersal system:

1. Plot plan drawn to scale, completely dimensioned, of the parcel and extending at least 150 feet past the property line, showing direction and approximate slope of surface, location of present or proposed retaining walls, drainage channels, water supply lines or wells, paved areas and structures on the plot, number of bedrooms or plumbing fixtures in each structure, and location of the private sewage dispersal system with relation to lot lines and structures.
2. Recommended method of sewage treatment
3. Estimated sewage flow
    a. Designs for commercial applications shall provide calculations based upon both fixture units and proposed occupancy, for which the final design shall utilize the more conservative calculation.
    b. Average soil permeability-percolation test results
    c. Applicable soil application rate [gallons per day per square feet (gpd/sq.ft.)] based on soil group in Table 203 or percolation rates per Section 401.4
    d. Minimum capacity of septic tank
    e. With or without garbage disposal (grinder)
    f. Dispersal Trench /Seepage Pit construction
    g. Width
    h. Total depth
    i. Depth of leach line or inlet to seepage pit
    j. Spacing between trenches or pits
    k. Venting system (if required)
    l. Total dispersal area requirements
    m. Dispersal area per linear feet allowed or dispersal area provided per pit
    n. Required total length of dispersal trench or number of pits
    o. Area of house and number of bedrooms
4. Details of construction necessary to ensure compliance with the requirements of this LAMP together with a full description of the complete installation including quality, kind, and grade of materials, equipment, construction, workmanship, and methods of assembly and installation.
5. A log of soil formations and groundwater levels as determined by test holes prepared by the qualified professional that are dug in close proximity to a proposed seepage pit or

dispersal field, together with a statement of water dispersal characteristics of the soil at the proposed site, as determined by approved percolation tests.

1201.1 Drawing and Specification Validity

All drawings and specifications shall be signed and stamped as appropriate by a Qualified Professional. Submittals will be valid for one-year from the date of submittal to the County.

Section 1300 Site Evaluations/Sewage Feasibility

1300.1 General

Site evaluations are required for approval of all parcel and subdivision maps and for construction of on-site wastewater systems.

1301.1 Site Preparation and Application

1. With the exception of Water Well Reports and complaint information, RMA parcel files are accessible to the public and customers are encouraged to review their property file before applying for a Site Evaluation.
2. Site Evaluation applications will only be accepted when determined by the RMA to be complete, including the following information:
    a. Property Identification \Property owner
        i. Address of proposed/existing residences, if assigned
        ii. Assessor's parcel number (APN)
        iii. Narrative describing the basis of the Site Evaluation submittal, which shall include reference to any other related County projects, if applicable.
    b. Property Characteristics
        i. Area of the lot (acreage)
        ii. Topographic relief
        iii. Vegetation
        iv. Drainage(s), Lakes, ponds, or reservoirs & flood zone plain/zone info.
        v. Map should show the following for the subject parcel and within 150 feet on the adjacent parcel(s.)
            1. property boundaries
            2. proposed and existing water well location(s) on the subject parcel
            3. home site
            4. driveway(s) and parking area(s)
            5. out buildings
            6. proposed percolation test locations if any
            7. proposed test pit locations
            8. proposed and existing dispersal fields
            9. proposed and existing expansion area(s)
            10. stream courses, shallow or outcropping bedrock
            11. potential areas of shallow groundwater
            12. potential areas of inundation

13. and any other factors which may limit sewage dispersal.

1302.1 Soil Test Hole Requirements

1. Unless otherwise approved by the RMA, a minimum of 2 test holes will be required for the development of a new parcel, with at least one hole excavated in the primary and one hole excavated in the replacement dispersal areas. At the discretion of the RMA, additional test holes may be needed to adequately characterize site conditions or fewer test holes may be allowed based on considerations such as space limitations on smaller parcels or uniformity of area soil characteristics.
2. Test holes must be dug with a backhoe. Soil descriptions may be supplemented with soil boring information, but will not satisfy backhoe test hole requirements.
3. Test holes must be dug a minimum of 5 feet deeper than the proposed bottom of the dispersal system. If a seepage pit is proposed, it will require a test boring to the minimum depth of 10 feet deeper that the proposed design depth.

1303.1 Site Inspection and Evaluation

EHD staff will evaluate the Site Inspection Report submitted by the qualified professional and make an initial determination of whether site conditions are suitable for coverage under the LAMP.

1304.1 Site Evaluation Reports

1. Site Evaluation reports will be deemed to be complete by the EHD when the following additional information is supplied:
    a. Soil Characteristics
        i. Perc Test Results: Information should include:
            1) a description of the soil (soil group, color, texture, percentage of rock, etc.)
            2) evidence of seasonal high groundwater
2. Percolation Test Results: The number of percolation tests performed shall be adequate to demonstrate a representative range of percolation rates within the primary dispersal area as well as the required 100% expansion area.
3. Maximum wastewater flow permitted on the site based on nitrogen loading requirements in section 1400.

1305.1 Site Evaluation Expiration

Site Evaluations will be valid for the lifetime of the parcel as it exists when the evaluation was conducted.

1306.1 Qualified Professional

1. A qualified professional is required for all site evaluations and design submittals. For the purposes of this LAMP, a qualified professional is defined as one of the following:
    a. Building Inspectors demonstrating knowledge of OWTS by completing coursework relative to the inspection, design and installation of OWTS.

i. Examples of coursework include but are not Limited to:
    1. Sacramento State Water Programs Small Wastewater System Operation and Maintenance, Volume I and II.
    2. NAWT/COWA Inspector and O&M Courses

b. California Professional Engineer;
c. California Engineering Geologist;
d. California Professional Hydrogeologist;
e. Registered Environmental Health Specialist (REHS)
f. Soil Science of America Certified Soil Scientists

Section 1400 Nitrogen Loading Analysis

1400.1 General

Septic system density will be limited to one system per acre. Any new development or secondary dwellings will require a nitrogen loading analysis by a qualified professional, demonstrating to the RMA, that the regional characteristics are such that an exception can be made. Supplemental treatment systems for nitrogen reduction will be referred to the RWQCB for permitting.

Consideration of OWTS density, parcel size and potential cumulative OWTS impact issues (e.g., groundwater mounding, nitrate loading) is addressed in Tulare County primarily through Ordinance requirements under Part VII which imposes absorption field size requirements to minimize the cumulative impacts, taking into consideration factors such as constituent levels (e.g., nitrogen content) in the wastewater, the volume of wastewater flow, and the density of OWTS discharges in a given area.