
Lahontan Regional Water Quality Control Board

January 28, 2025

Reg Measure ID. 415771
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TO: ATTACHED MAILING LIST as bcc

Revision of San Bernardino County Local Agency Management Plan (LAMP), Previously Board Order No. R6V-2017-0032 for San Bernardino County

Lahontan Regional Water Quality Control Board (Water Board) staff are requesting approval of the revised Local Agency Management Plan (LAMP) for the On-Site Wastewater Treatment Systems (OWTS) located within San Bernardino (Resolution No. R6V-2017-0032), see the enclosed tentative order. If you are interested in providing written comments regarding this tentative order, then please complete the following steps.

1. Add project specific details to your communication:
 - Include the subject line “San Bernardino County LAMP Comments.”
 - Address to Lahontan Regional Water Quality Control Board attention of Jose Valle de Leon.
2. Submit comments via one of two ways by **March 14, 2025**:
 - Email to Lahontan@waterboards.ca.gov, or
 - Mail to 15095 Amargosa Rd., Bldg. 2 – Suite 210, Victorville, CA 92394.

In addition to or instead of written comments, you may provide verbal comments during the scheduled Water Board meeting. This item is tentatively scheduled for consideration during the regular board meeting on May 13 and 14, 2025. You can view the Water Board's meeting agenda 10 days before the meeting on our [website](#) to ensure the item remains scheduled for that meeting.

If you need further information regarding the relevant meeting, please contact our office at (760) 241-6583. Additionally, if you need further information regarding this agenda item, please contact Jose Valle de Leon at (760) 241-7404 or jose.valledeleon@waterboards.ca.gov or Reginald Tan (760) 241-2434 or reginald.tan@waterboards.ca.gov.

Enc: Tentative Revised San Bernardino County LAMP 2025, San Bernardino County

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**RESOLUTION NO. R6-2025-TENTATIVE
WDR100053297**

**APPROVING THE REVISED LOCAL AGENCY MANAGEMENT PROGRAM
FOR SAN BERNARDINO COUNTY**

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) finds that:

1. On June 19, 2012, the State Water Resources Control Board (State Water Board) adopted Resolution No. 2012-0032, which approved the statewide *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (OWTS Policy) regulating onsite wastewater treatment systems (OWTS).
2. On April 18, 2023, the State Water Board adopted Resolution No. 2023-0012, which amended the original OWTS policy.
3. The OWTS Policy defines a "local agency" as any subdivision of state government that has responsibility for permitting the installation and regulation of OWTS within its jurisdictional boundaries; typically, a county, city, or special district.
4. The OWTS Policy allows local agencies to propose Local Agency Management Programs (LAMPs) for approval by the Regional Water Quality Control Boards. Upon LAMP approval, the local agency manages the installation, maintenance and oversight of new and replacement OWTS under the LAMP.
5. San Bernardino county spans over multiple water board jurisdictions, the OWTS Policy designates the Lahontan Water Board as the lead agency to review and approve the San Bernardino County LAMP, provided it solicited comments from non-jurisdictional Regions: Colorado River Basin Water Board and the Santa Ana Water Board.
6. On July 13, 2017, the Lahontan Water Board adopted Resolution No. R6V-2017-0032, which approved San Bernardino County's LAMP. The LAMP covers an area regulated by the Lahontan Water Board, Colorado River Basin Water Board and the Santa Ana Water Board.

7. On June 12, 2024, San Bernardino County Division of Environmental Health Services (San Bernardino County Environmental Health) submitted a proposed revised LAMP for approval. The purpose for the revision is to update to the LAMP based on the results from the 5-Year Water Quality Assessment Report, to include new state and county regulations, and to improve the language and clarity of the program.
8. On September 3, 2024, Water Board staff issued a Water Board comment letter to San Bernardino County. The letter contained comments from the Colorado River Basin Water Board, Santa Ana Water Board, and the Lahontan Water Board.
9. In response to the September 2024 comments, San Bernardino County revised its proposed LAMP and submitted a final draft on October 7, 2024.
10. Water Board staff has reviewed the proposed LAMP and determined that it addresses all required elements of the OWTS Policy.
11. On January 28, 2025, the Water Board notified San Bernardino County Environmental Health and interested parties of the opportunity for public comment and public hearing concerning consideration of a resolution to approve the San Bernardino County LAMP.
12. On May 13 or 14, 2025, the Lahontan Water Board, in a public meeting, heard and considered all comments pertaining to this action.

NOW, THEREFORE, BE IT RESOLVED THAT:

The Lahontan Water Board hereby approves San Bernardino County's revised LAMP.

I, Michael R. Plaziak, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of the resolution adopted by the California Regional Water Quality Control Board, Lahontan Region, on May 13 or 14, 2025.

(for) MICHAEL R. PLAZIAK, PG
EXECUTIVE OFFICER



Public Health
Environmental Health Services

Local Agency Management Program

LAMP 2024



(800) 442-2283
ehs.sbcounty.gov
385 N. Arrowhead Ave, 2nd Floor
San Bernardino, CA 92415



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Chapter 1: Introduction

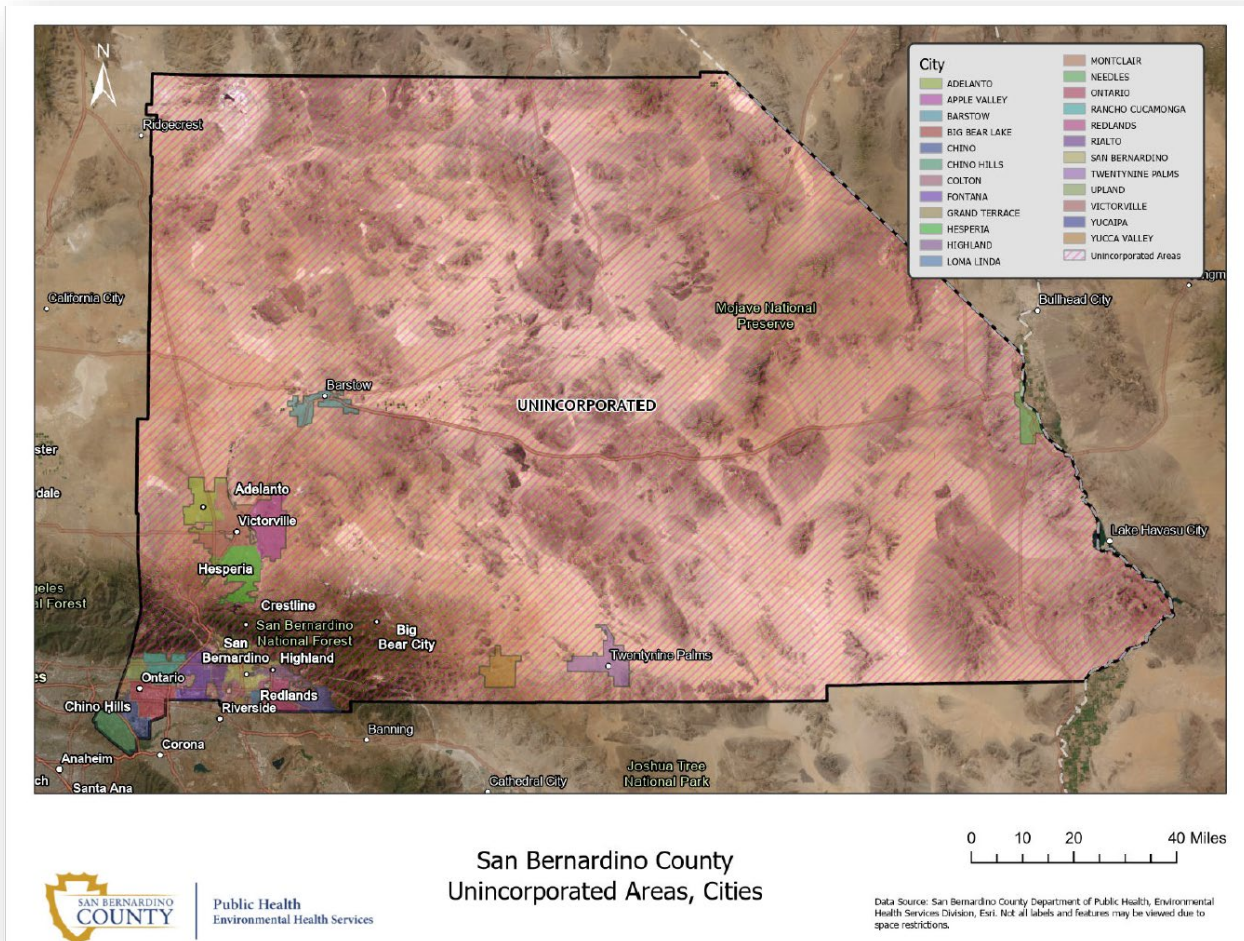
San Bernardino County Geographical Information

San Bernardino County is the largest county in the contiguous United States, encompassing a total of 20,068 square miles. It has very diverse geology, topography and physical geography that affect the suitability of a *site* for various types of existing and potential future land uses. There are three primary regions in San Bernardino County. The Valley Region consists of the area south of the San Gabriel and San Bernardino Mountains and includes the Upper Santa Ana Valley and Chino Hills. The *Mountain Region* includes the eastern San Gabriel Mountains and San Bernardino Mountains. The Desert Region is the area east and north of the *Mountain Region* and includes mountains and valleys within the Mojave Desert, basin and range and a portion of the Lower Colorado areas.

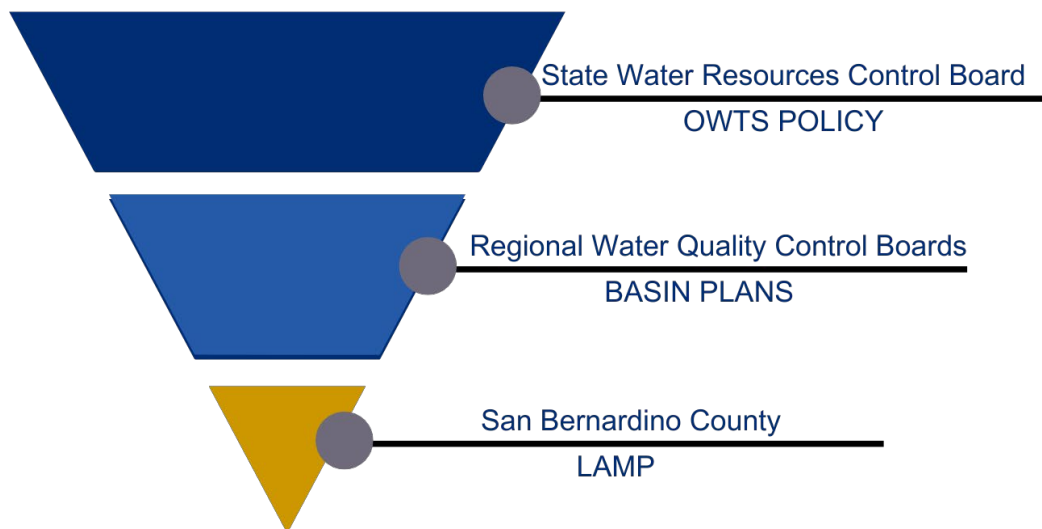
These distinct regions include land at varied elevations and *soil* morphologies. The desert valleys between 2,000 and 5,000 feet above sea level contain *soils* of predominantly sandy gravel with high runoff coefficients and fast percolation. The mountain ranges contain areas exceeding 8,000 feet above sea level with areas of high *groundwater* exposed *bedrock* and mineral deposits in granite rock. The majority of San Bernardino County is crossed by expansive, alluvial wash deposits. Other unique *soil* types include major dune formation, desert pavement, and dry alkaline lake beds.

These regions also vary in population, water resources and governance. The unincorporated area, which is under County jurisdiction and this *Local Area Management Program (LAMP)*, spans 1.65 million acres. Five percent is directly under the control of the 24 incorporated city and town governments located within the County borders. The remaining area is managed by governmental agencies, including tribal governments, the State of California, and the federal government.

The areas in red are designated as the unincorporated area of the County.



Local Agency Management Program Overview



State Water Board and Onsite Wastewater Treatment System Policy

The *State Water Resources Control Board (SWRCB)* has jurisdiction throughout California. Created by the State Legislature in 1967, the Board protects water quality by setting statewide policy and water quality standards and coordinating and supporting the nine *Regional Water Quality Control Boards (RWQCB)*.

In May 2013, the *SWRCB* put into effect a statewide *Onsite Wastewater Treatment System (OWTS)* Policy. This policy outlines the responsibilities and duties of individual *OWTS* owners; local agencies, including counties, cities, or any other subdivision of state government with *permitting* powers over the *OWTS* such as the *RWQCB* and the *SWRCB*. The policy is updated by the *SWRCB* as needed and it was most recently amended in April 2023.

This policy places *OWTS* into categories labeled “Tiers” based on the potential to impact water quality and public health. It allows local regulatory agencies to establish *OWTS* regulations based on their unique region. These local regulations are outlined in each agency’s *LAMP* and final approval comes from the lead *RWQCB*.

Tiered System of the OWTS Policy

The OWTS Policy was created to meet the requirements of State Assembly Bill (AB) 885, implemented in 2000 to establish consistent, statewide standards for the regulation of OWTS. The purpose of this policy is to allow the continued use of OWTS, while protecting water quality and public health. The OWTS 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, the OWTS Policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements and sets the level of performance for OWTS and protection of *groundwater*.

The OWTS Policy categorizes OWTS into the following tiers:

Tier	Description
0	<p><i>Existing OWTS</i></p> <p>Applies to all existing systems which function properly, do not meet the conditions of a failing system, and are not contributing to the pollution of any waterways.</p>
1	<p>Low Risk-New or Replacement OWTS</p> <p>Applies to all new and/or <i>replacement</i> OWTS which meet low risk <i>site</i> review and design requirements in areas which do not have an approved Program.</p>
2	<p><i>Local Agency Management Program</i> for New or Replacement OWTS</p> <p>Applies to any new and/or <i>replacement</i> OWTS which are not within a prohibition area or that do not fall into Tier 3. Tier 2 is referred to as the Program and allows the County to apply standards that differ from the State.</p>
3	<p>Impaired Areas</p> <p>Applies to any existing, new and/or replacement systems located near impaired water bodies. These systems have been identified as potential sources of pollution and must abide by the Advanced Protection Management Program prescribed in Tier 3 of the <u>OWTS Policy</u>.</p>
4	<p>OWTS Requiring Corrective Action</p> <p>A temporary classification for all systems that have been found to be failing, and/or needing repair. Once the system has been repaired, it will be placed in either Tier 0, Tier 2, or Tier 3.</p>

Existing OWTS that conform to the requirements for Tier 0 will remain in Tier 0 if 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 a *major repair* under Tier 4. Any *major repairs* conducted as corrective action must comply with Tier 1 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 or is covered by a Total Maximum Daily Load (TMDL) implementation plan.

Regional Water Quality Control Board and Basin Plans

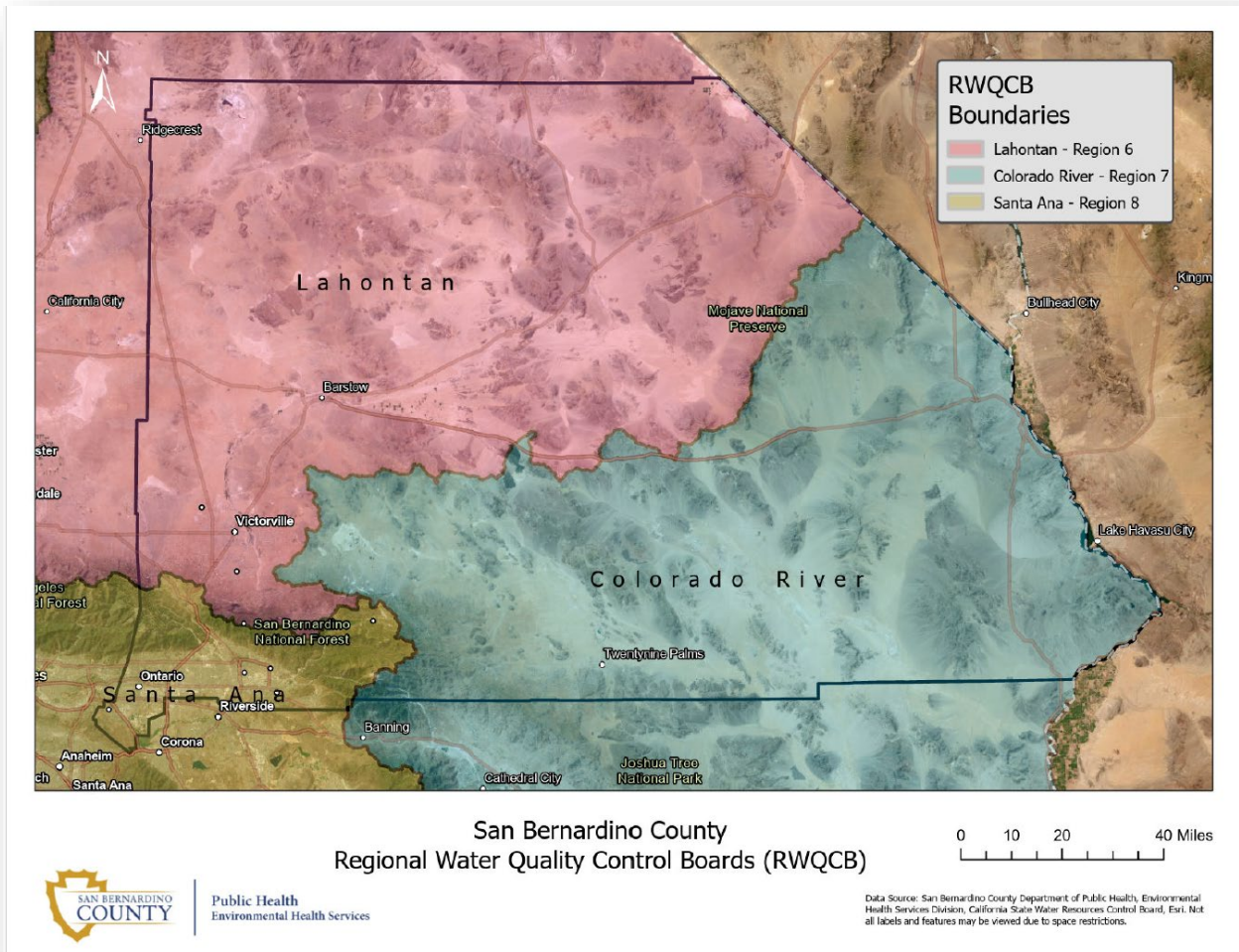
There are nine *RWQCB* within California that exercise rulemaking and regulatory activities by basins. Regional boundaries are based on *watersheds* and water quality requirements are based on the unique differences in climate, topography, geology, and hydrology for each *watershed*. Each *RWQCB* makes critical water quality decisions for its region, including setting standards, issuing *waste discharge requirements*, determining compliance with those requirements, and taking appropriate enforcement actions. These requirements and regulations are delineated in each *RWQCB's Basin Plan*.

Basin Plans are adopted by each *RWQCB*, approved by the *SWRCB* and the Office of Administrative Law. *Basin Plans* help to address water quality issues such as: bacterial contamination of *surface water*, metals, sedimentation, and contamination from industrial and agricultural practices. TMDL for impaired water bodies are usually adopted as *Basin Plan* amendments and contain implementation plans detailing how water quality standards will be attained. *Basin Plans* are updated every three years by each *RWQCB*.



The three *RWQCBs* that have jurisdiction in San Bernardino County are:

- Region 6 – Lahontan
- Region 7 – Colorado River
- Region 8 – Santa Ana



Additional guidance regarding *OWTS* in San Bernardino County can be found by contacting each respective *RWQCB*. The Lahontan *RWQCB* is the lead agency for the three *RWQCB* within San Bernardino County.

Lahontan Region Southern Office (Region 6)

15095 Amargosa Road, Bldg. 2, Suite 210

Victorville, CA 92394

(760) 241- 6583

www.waterboards.ca.gov/lahontan

Colorado River Basin Region (Region 7)

73-720 Fred Waring Drive, Suite 100

Palm Desert, CA 92260

(760) 346-7491

www.waterboards.ca.gov/coloradoriver

Santa Ana Region (Region 8)

3737 Main Street, Suite 500

Riverside, CA 92501

(951) 782-4130

www.waterboards.ca.gov/santaana

San Bernardino County and the Local Agency Management Program

Basin Plans help the *local agency* to establish the regulatory framework to draft the *LAMP* based on that area's particular needs. 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* to protect *groundwater* would either be too restrictive in protection efforts or conversely would have broad allowances insufficient for sensitive areas. To accommodate this variance, local agencies may submit their *LAMP* for approval to the applicable *RWQCB*. Upon approval, the *local agency* will then manage the review and approval of new and *replacement OWTS* under that program.

In San Bernardino County, the *LAMP* is drafted and enforced by Environmental Health Services (EHS), serving as the designated *local agency*.

San Bernardino County Local Agency Management Program Purpose

Facilitating *development* in San Bernardino County continues to be a priority for EHS. The requirements defined by Tier 1 of the *OWTS* Policy do not meet the future *development* needs of San Bernardino County. This *LAMP*, under *RWQCB* oversight, maintains *OWTS* guidance at the County level to allow for the continued use and installation of *OWTS* by specifically outlining wastewater concerns, County requirements, and scope of coverage for *OWTS* installation and maintenance.

The requirements in this *LAMP* are derived from the California Plumbing Code requirements for private sewage disposal systems, the *OWTS* Policy, *RWQCB Basin Plans* and local ordinances. This allows San Bernardino County flexibility based on the diversity of *soil* conditions, depth to *groundwater*, climate, and population.

The *LAMP* requirements also aid in accommodating the various construction needs throughout the unincorporated areas of San Bernardino County. It includes general technical information regarding *OWTS* standards within the County, as well as providing an effective means to manage operating *OWTS*. As needs, regulations and environmental factors change, the *LAMP* is adaptive and can be modified in response to the *RWQCB*'s five-year review or changes that have occurred from the *LAMP* adoption date of June 23, 2017.

Involved Agencies

Oversight of *OWTS* installation and maintenance is a multiple agency effort. This section provides an overview of the primary agencies involved in San Bernardino County.

Obtaining an *OWTS permit*, and obtaining local land use approval, are two separate processes. Local Land Use approval (i.e., obtaining a Conditional Use *Permit*) is not a substitute for an *OWTS permit* issued by Building and Safety, nor does it guarantee issuance of an *OWTS permit*.

Division of Environmental Health Services - Department of Public Health

EHS is the lead agency for the *OWTS* and is responsible for:

- Reviewing:
 - Percolation reports,
 - Residential projects,

- *Alternative Treatment Systems (ATS) and/or Alternative Dispersal System (ADS)* proposals for new and replacement septic systems,
- Commercial projects,
- *OWTS certifications*, and
- *Annual operating permits* for *ATS* and *Sewage Holding Tanks (SHT)*.
- Investigating and storing records of complaints in partnership with Code Enforcement.
- Complying with the *LAMP's* reporting requirements, which includes:
 - Complaints pertaining to *OWTS* operation and maintenance including number and location of complaints and how the complaints were resolved.
 - Applications and registrations issued as part of the liquid waste hauler program.
 - Compiling data transferred from Building and Safety and Code Enforcement for reporting purposes.

Building and Safety - Land Use Services Department

Building and Safety is the lead agency for construction permitting and is responsible for:

- Issuing building *permits* for new construction, replacement, and repair of *OWTS*.
- Reviewing plot plans for new and *replacement OWTS*.
- Retaining *permit* information regarding new construction, replacement systems, and repairs of *OWTS*.
- Complying with the *LAMP's* reporting requirements regarding issued *permits* for new and *replacement OWTS*.

Code Enforcement – Land Use Services Department

Code Enforcement is responsible for investigating complaints in partnership with EHS for overflowing/*failed OWTS*, which includes:

- Requiring property owners to obtain applicable *permits* from Building and Safety and EHS for repairs, or replacement of failing *OWTS*.
- Retaining information regarding complaints and investigations for overflowing or *failed OWTS*, and subsequent actions taken.

Chapter 2: The Local Agency Management Program Scope of Coverage

Introduction

The *LAMP* excludes the following from its scope of coverage:

- Projected flow exceeding 10,000 gallons per day.
- Proposed flow including *high strength wastewater* or other type of flows that are subject to oversight by the *RWQCB*, the Environmental Protection Agency or another applicable agency.
- Projects that fall outside of the boundaries of San Bernardino County's jurisdiction.
- Centralized Wastewater treatment facilities.

Minimum Requirements for Onsite Wastewater Disposal

When sewer is not available, and a property improvement will generate wastewater, the property owner must demonstrate the following to EHS:

- Sewer is not available within the required distance (as described in Chapter 3).
- *Soils* meet the standards for onsite wastewater disposal.
- Adequate area is available to install a septic system that meets proper setbacks (this includes 100% *expansion area*).
- *OWTS* will not impact ground or *surface water*.
- *OWTS* can be sized appropriately to serve the intended land use.

Applicability of Program Standards

LAMP standards apply to all *OWTS* within the jurisdiction of San Bernardino County which have affected or have the potential to affect water quality or create a public health hazard.

Implementation Mechanisms

This *LAMP* addresses the minimum requirements for proposals, design, *permitting*, monitoring, and maintenance of *OWTS* located within the jurisdiction of San Bernardino County. Any or all of the following mechanisms can be used to achieve this purpose:

- Differing system requirements.
- *Site* controls.
- Requirements for owners to enter agreements regarding monitoring and maintenance.

- Creation of a *Designated Maintenance Area (DMA)*.
- *Operating permits* for *ATS*, *SHT*, and *OWTS* within a *DMA*.
- Any other conditions deemed necessary at the discretion of the San Bernardino County.
- Administrative citations.

In addition to all standards and requirements, all proposed, and/or currently installed *OWTS* must also be in compliance with applicable sections of the [San Bernardino County Code](#).

Tier 4 *OWTS*

Tier 4 is a temporary classification for all systems that have been found to be failing, and/or in need of repair. *OWTS* which are included in Tier 4 must continue to meet applicable requirements of this *LAMP*, pending completion of corrective action.

OWTS Requiring Corrective Action

All *OWTS* have a finite lifespan. When an *OWTS* is deemed to be failing or requires corrective action, the system must be replaced, repaired, or modified to comply with Tier 2 or 3 classifications as appropriate. A failing *OWTS* is one that exhibits:

- A *dispersal system* failure,
- Pooling *effluent*,
- Wastewater discharge to the surface,
- Backed up wastewater into plumbing fixtures,
- *Septic tank* failure,
- A component failure, or
- The potential to affect water quality or create a public health hazard.

Addressing Corrective Action Requirements

To maintain compliance with the *LAMP*, the property owner must address any corrective action requirements as soon as reasonably possible or as determined by the lead agency which includes, but is not limited to: EHS, Building and Safety, Code Enforcement or the *RWQCB*. The property owner must act in accordance with the time schedule of any corrective action notice received from EHS, Code Enforcement or the *RWQCB*.

Failure to Address Corrective Action Requirements

Any *OWTS* which fails to meet the corrective action requirements, also constitutes a failure to meet the conditions of the waiver of wastewater discharge requirements contained in the *LAMP*. These may be subject to enforcement actions, which include,

but are not limited to citations and/or fines from Code Enforcement, EHS, RWQCB and/or legal action against the property owner.

Onsite Inspections

To ensure uniformity and compliance with the *LAMP*, *OWTS* inspections may be required.

New OWTS

In San Bernardino County, *percolation testing* and preliminary *site* suitability reports for *OWTS* are conducted by *Qualified Professionals* in adherence with the criteria outlined in the *Percolation Testing* and Reporting Standards for *OWTS*. The *Qualified Professional* submits the percolation report to EHS, a review is completed, and it is determined if an onsite inspection is needed.

Conditions that may require EHS to conduct an onsite inspection for a new *OWTS* include any *parcel* that is:

- Located in the *mountain regions*.
- Less than two and a half acres and is served by a water well.
- Located where minimum setback requirements cannot be met.
- Located:
 - On a slope greater than 20%.
 - Within 200 feet of a river.
 - Within 100 feet of a stream.
 - In an area of historically high or *perched groundwater*.

More information regarding minimum setback requirements can be found in Chapter 4.

Required Onsite Inspection of New/Existing OWTS

EHS may also, at its discretion, determine if an onsite inspection is necessary in instances not mentioned above, or where it is determined the installation or operation of an *OWTS* may have an adverse impact to water quality and public health.

OWTS in Designated Maintenance Areas

All *OWTS* which are located within a *DMA* are required to maintain an *operating permit*, pay the required biennial fees, and be inspected by EHS biennially. Refer to Chapter 8 for more information regarding the *DMAs* located within the San Bernardino County mountains.

Sewage Holding Tanks

All *SHT* located within San Bernardino County are required to maintain an annual *operating permit*, pay the required annual fees, and be inspected annually by EHS. Refer to Chapter 6 for more information regarding *SHT*.

Alternative Treatment Systems

Owners of *ATS* located within San Bernardino County are required to maintain an *operating permit* and pay the required annual fees to EHS. *ATS* requires inspection annually by a *Qualified Service Provider* and may also be inspected by EHS. Refer to Chapter 6 for more information regarding *ATS*.

Other Wastewater Concerns

EHS may establish an alternative *OWTS site* and operational requirements to provide a similar level of protection of water quality and public health. The following are several scenarios where approvals cannot be granted due to *RWQCB*, *SWRCB* or EPA regulations.

Above Surface Discharge

Approvals will not be granted for any *OWTS* which utilizes any form of *effluent* disposal discharging on, or above, the post installation ground surface; this includes, but is not limited to, sprinklers, exposed drip lines, free-surface wetlands, and lagoons.

Sewer Availability

Approval will not be granted for any *OWTS* where there is a public sewer available.

Alternative Treatment Systems

As referenced above, *ATS* requires periodic monitoring, sampling, and inspections. No exemptions or modifications will be granted for *ATS* that are unable to meet this requirement.

Recreational Vehicle (RV) Holding Tanks

No approval will be granted for an *OWTS* receiving significant amount of waste from *RV* or similar mobile holding tanks. *RV* waste must be disposed of at an *RWQCB*-approved *RV* discharge station. The *RWQCB* may consider approval of incidental *RV* waste on a case-by-case basis.

Graywater

No surface discharge of *graywater* is *permitted*. The sizing of an *OWTS* will not be reduced by the existence or proposed installation of a *graywater* system. *OWTS* do not include "*graywater*" systems pursuant to [Health and Safety Code Section 17922.12](#).

Cesspools

Cesspools are not *permitted* within the State of California. When a *cesspool* is discovered, the property owner will be required to address and eliminate it within 30 days. The *cesspool* must be replaced with a sewer connection or an *OWTS* that meets current standards.



Grease Interceptor

Food facilities which generate Fats, Oils, and Grease (FOG) waste while utilizing an *OWTS* must have an appropriately sized, inground, outdoor *grease interceptor* approved by Building and Safety.

Chapter 3: Minimum *Site Evaluation* Standards



Parcel and Development Standards

In San Bernardino County, land use approval and *permitting* are separate processes. An EHS OWTS approval is never a substitute for a required local grading, land use, or building *permit*. Similarly, no local land use approval or *permit* (e.g., approval of a subdivision map or *parcel* split or boundary adjustment, even after preliminary septic system review by EHS), is a substitute for an EHS OWTS approval, or a guarantee that such an approval can be issued.

Sewer Requirement

Connection to a public sewer system is required when *development* is proposed within the established sewer service district boundaries. The approval of an OWTS will not be granted by San Bernardino County for any new or modified residential, commercial, and industrial *developments* on *parcels* which are located within sewer boundaries. Sewer boundaries in relation to calculated distance (as determined by the formula below) will be determined by the applicable sewer entity.

New Developments

New developments must connect to a sewer system when the nearest property line is within 200 feet of an available sewer line. Any additional *development* (more than one

Equivalent Dwelling Unit (EDU) per parcel will increase this distance by 100 feet per EDU.



Example:
A 10-*parcel* subdivision will be required to connect to a sewer if the sewer is within [200 feet + (9 x 100 feet)] = 1,100 feet of the proposed *development*.

Sewer connections will also be required if the *parcel* is located outside of a sewer service area but within the required connection distance. This may necessitate annexation or an out-of-agency service agreement and may require Local Agency Formation Commission (LAFCO) approval.

Existing Developments

Upon failure of an *existing* OWTS located on residential, commercial, and industrial *developments*, OWTS approval will not be granted if the *parcel* is located within the defined distance from a sewer boundary.

When additional structures *EDU* are added to existing *developments* on OWTS, and these additions will result in increased wastewater flows, these *developments* will be considered *new developments*. This applies to all single family residential, multi-family residential, commercial, and industrial *developments*. This *new development* would be required to connect to a sewer if it was within the calculated range.

Example:

An existing *parcel* on an OWTS with one single family residence proposing an additional *EDU* will be required to connect to sewer if it is within 300 feet [200 feet + 100 feet = 300 feet] of the proposed *development*.

Density/Minimum Parcel Size Requirements for OWTS

EHS reviews all proposals for OWTS compliance for any Subdivision and Lot Line Adjustments within San Bernardino County.

Residential

Public Water System

San Bernardino County has minimum *parcel* size requirements for *new developments* served by a *public water system*, relying on *OWTS*. In the areas of the county governed by the *LAMP*, the minimum *parcel* size of one-half acre per dwelling unit is required for *new developments*.

Water Well

When a subdivision is proposed that relies on both an onsite water well and *OWTS* the following conditions will apply:

- Minimum *parcel* size will be two and a half acres.
- The county, at its discretion, may defer consideration of projects to the appropriate *RWQCB*.
- Any new water well *permit* within the Lahontan *RWQCB* jurisdiction may be required to conduct a cumulative impact assessment including a hydrogeological study.
- Each *parcel* must also meet all setback requirements, as outlined in Chapter 4, to be approved.

Commercial/Industrial

New commercial/industrial/non-residential *developments* relying on *OWTS* must ensure that the wastewater flow for each one-half acre of land does not exceed that of an *EDU*. Commercial *development* on *parcels* smaller than one-half acre will have the following flow rates adjusted based on *parcel* size.

When determining compliance with this criterion, the following will be considered equivalent to a single-family dwelling unit:

- A flow rate of 250 gallons per day (Lahontan *RWQCB*), 300 gallons per day (Santa Ana *RWQCB* and Colorado *RWQCB*), or
- The equivalent of 20 *fixture units*, whichever is most conservative.

Minimum Parcel Size Variances

There are certain instances where the minimum *parcel* size requirements will not apply. These requirements do not apply to existing *developments* or *parcels*:

- Which have received *OWTS* approval for one *EDU* from San Bernardino County prior to the original *LAMP* adoption date of June 23, 2017.
 - Proposed new *ADU developments* must meet the requirements of this *LAMP*.
- In the regions of environmental concern determined by the *RWQCB* as prohibition areas. These regions will require a more stringent minimum *parcel* size of one acre.

Single Family Residential *Developments* and Accessory Dwelling Unit

Proposed new *Accessory Dwelling Unit (ADU) developments* will not be approved if the *parcel* size requirements outlined above are not met.

A septic certification is required to verify the *OWTS* capacity, functionality, and compliance with the *LAMP* before any *ADU* additions are approved. Minimum *parcel* size requirements are enforced for any non-*permitted* existing dwellings, which may include, but is not limited to, garage conversions, existing buildings, or non-*permitted* conversions into a dwelling unit. Inadequately sized systems are required to come into compliance with current *OWTS* sizing standards.

Tracts, Parcels, and Commercial/Industrial Developments

Tracts, *parcels*, and commercial *developments* which received land use approval prior to the *LAMP* adoption date of June 23, 2017, are exempt from the minimum *parcel* size requirements for the use of *OWTS*. This approval must be granted by San Bernardino County.

Combined Parcels Smaller than One-Half Acre

New *parcels*, which are smaller than one-half acre, may be formed by combining two or more existing *parcels* which have received land use approval prior to the *LAMP* adoption date of June 23, 2017. Individually, these *parcels* are eligible for an exemption from the minimum *parcel* size requirement. The newly formed *parcel*, smaller than one-half acre, may have a single-family residence or one *EDU*.

County Discretion

The minimum *parcel* size requirement does not preclude the prescription of more stringent requirements if deemed necessary to protect water quality and public health.

Minimum Site Evaluation Standards

EHS requires *site evaluations* and *percolation testing* for *parcel* subdivisions, *new developments*, and where a percolation report has not been previously approved. For the purposes of this requirement each individual *parcel* will be evaluated. *Percolation testing* and reports are required to be conducted and prepared by a *Qualified Professional*.

Minimum Qualifications and Certification for *OWTS* Practitioners

The following table outlines the minimum qualifications for *OWTS* practitioners. Any licenses or certifications possessed by these practitioners must have been issued from the State of California.

OWTS Service	Minimum Qualifications
Alternative Treatment and/or Alternative Dispersal Inspection and Monitoring	Qualified Service Provider
OWTS Design	Qualified Professional, or Licensed Contractor (Class A, C-36, or C42)
OWTS Certification	
Percolation Test	Qualified Professional
Septic Tank Pumping and Reporting	EHS permitted Liquid Waste Hauler
System Installation (new and replacement)	Licensed Contractor (Class A, B, C-36, or C-42)

Sewer Availability

Prior to accepting a new or *replacement OWTS permit* application, EHS and/or Building and Safety may require a “Will or Will Not Serve” letter from the local sewer purveyor to evaluate the proximity and availability of sewer. The “Will or Will Not Serve” letter must be dated within one year and include the following:

- *Parcel* number for the property where the OWTS is proposed,
- Distance to the nearest available sewer line,
- Whether or not the sewerage entity will provide service to the *parcel*,
- Be completed and signed by the appropriate official representing the sewerage entity, and
- Be submitted with the percolation report/plot plan.

Site Evaluation Methods

Site evaluations include a review of the geographical and geological features of the specific *site*. Exploratory borings or trenches are the main evaluation methods to determine adequate separation from the bottom of the *dispersal system* to *groundwater*. To determine the highest level of *groundwater* onsite, data from *permitted* wells, local water purveyors, and the United States Geological Survey (USGS) may also be used.

Soil Profile

Soil characteristics determine the minimum number of exploratory borings (or trenches), as well as the number of *percolation tests* required for the *parcel(s)*. A *soil* profile must be created to determine the:

- Suitability of the *soils* for treatment of wastewater, and
- Proper type of *dispersal system*.

- Verify adequate vertical separation between the bottom of the dispersal field and historic and current *groundwater* levels.

Based on the findings in the report, more extensive testing may be required by EHS.

Percolation Testing Notification

A *Qualified Professional* must first submit a Notification of *Percolation Test* to EHS at least two business days prior to performing the *percolation test*. When a *percolation test* notification is submitted for a *parcel* which meets the criteria for a *site evaluation*, EHS may conduct an inspection of the *parcel*. Prior to the *site evaluation*, EHS will contact the applicant with the date of the *site evaluation*. The EHS evaluation will consider:

- Historical and current *groundwater*,
- *Parcel* size,
- Proper testing procedures,
- Rock outcroppings,
- *Site* location,
- Slope,
- *Soils*,
- Waterways, and
- Any other criteria which may affect *OWTS* installation and water quality.

Percolation Testing

Specific *percolation testing* procedures and requirements, as posted on the EHS website, can be found in the most recent version of the [*Percolation Testing and Reporting Standards for Onsite Wastewater Treatment Systems*](#).

Chapter 4: Site Review Standards

Site review standards have been developed to ensure an *OWTS* does not adversely affect water quality and public health.

San Bernardino County has developed these standards for *OWTS* which include minimum setback requirements, location review and other considerations.



Minimum Setback Requirements

The minimum separations listed herein are derived from the California Plumbing Code, Appendix H and the *OWTS* Policy, and are measured in feet. In some cases, additions or changes have been made to adequately protect public health. Where setback differences exist, the greater separation prevails unless approved by EHS. If setbacks cannot be met, an *ATS* is required. Approval of an *OWTS* with alternative treatment as a setback mitigation measure is determined by EHS.

Setbacks listed below must be met within the area of the proposed system and within the 100% *expansion area* for the proposed system. The following table provides the minimum requirements for installation of *OWTS* for both new and existing structures.

Minimum Setback Requirements Chart

	Septic Tank/SHT	Disposal Field	Seepage Pit
Private Water Supply Well ^{1,8}	100'	100' ²	150' ²
Public Water Supply Well ¹	100'	150' ²	200' ¹²
Buildings or Structures ³	5'	8'	8'
Property Line	5'	5'	8'
Streams and Other Flowing Bodies of Water ^{9,11}	100'	100'	150'
Drainage Course	50'	50'	50'
Perennial Stream ¹³	100'	100'	150'
Ephemeral Stream ¹⁴	50'	100'	100'
Lakes, Ponds, and Other Surface Water Bodies ^{10,11}	200'	200'	200'
River	50'	200'	200'
Large Trees ⁴	10'	10'	10'
Joshua Trees	40'	40'	40'
Seepage Pits	5'	5'	12'
Disposal Field	5'	4' ⁶	5'
Onsite Domestic Water Lines	5'	5'	5'
Pressure Public Domestic Water Lines	25'	25'	25'
Distribution Box	n/a	5'	5'
Ground Surface on Sloping Ground	n/a	15'	15'
Groundwater ⁵	5'	5' ⁷	10'

1. Drainage piping will clear *Domestic Water* supply wells by no less than 50 feet. This distance will be *permitted* to be reduced to no less than 25 feet where the drainage piping is constructed of materials approved for use within a building.
2. For any system discharging 5,000 GPD, or more, the required setback will be increased to 200 feet.
3. Includes porches and steps whether covered or uncovered, breezeways, roofed porte cocheres, roofed patios, carports, covered walls, covered driveway, and similar structures or appurtenances.
4. Any tree within 5 feet of the system that will not be removed during construction, or at the professional discretion of the Contractor.
5. The highest known level is based on current or historical data to which *groundwater* is known to have occurred.
6. Plus 2 feet for each additional foot or depth more than 1 foot below the bottom of the drain line.
7. For any system utilizing advanced treatment, this minimum separation may be reduced to 2 feet with approval under the APMP (refer to Chapter 7 for more information regarding the APMP) and the RWQCB.
8. Unless regulatory requirements necessitate that monitoring wells be located closer.
9. Where the edge of the water body is the natural or levied bank for creeks and rivers or may be less where *site* conditions prevent mitigation of wastewater to the water body.
10. Where the edge of the water body is the high-water mark for lakes and reservoirs and the mean high tide line for tidally influenced water bodies.
11. 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* will be no less than 400 feet from the high-water mark of the reservoir, lake or flowing water body. 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, the *dispersal system* will be no less than 200 feet from the high-water mark of the reservoir, lake or flowing water body.
12. *Dispersal Systems* which exceed 20 feet in depth and are located within 600 feet of a *public water supply well* will be required to have the *qualified professional* evaluate the two-year travel time for microbial contaminants to determine required setback. In no case will the setback be less than 200 feet.
13. As measured from the high-water mark which would result from a 100-year flood
14. As measured from the apparent edge of the channel

Streams of San Bernardino County

A complete list of *perennial streams* can be found in the latest edition of the Percolation Standards. The list may be amended from time to time to reflect new information as it becomes available to EHS.

An *ephemeral stream/drainage course* is any stream not listed as a *perennial stream* by EHS. To determine what setback restrictions should be applied, the USGS Maps are used as a guide. If a stream is designated on the USGS Map by a blue dash/dotted line, the setback requirements (listed in the chart above) must be met. If there is obvious evidence of water flow on a *site*, but it is not designated on the USGS Map, the setback is determined by the topography and geology of the *site* and the local *RWQCB*.

Disposal Field Placement on Sloping Ground

	Building Sewer	Septic Tank	Disposal Field
Cutback or fillbank when facility above bank	10'	10'	4xH(I)

Setbacks for disposal field placement on sloping ground is four times the height of the bank, measured from the top edge of the bank. Maximum setback is 35' from the top of the bank.

The maximum allowable undisturbed slope for a leach line dispersal system is 45%. Any portion of the disposal field situated at the top of a cut or on sloping terrain must maintain a horizontal distance of at least 15 feet from the point of daylight to any part of the leach line or leach bed. The table below specifies the minimum cover required relative to the slope percentage of the disposal field to satisfy the 15-foot setback requirement. Additionally, a factor "f" is included to adjust for the necessary increase in trench length due to the presumed reduction in evapotranspiration caused by the additional cover.

Slope of the Ground in the Area of the Disposal System	Minimum Cover Over the Drain Lines in feet	f
5%	1.00	1.0
10%	1.50	1.0
15%	2.25	1.0
20%	3.00	1.0
25%	3.75	1.1
30%	4.50	1.2
35%	5.25	1.3
40%	6.00	1.4
45%	7.00	1.5

If the ground slope is greater than 30%, any portion of a disposal field (except solid pipe) will be a minimum of 10 feet horizontally from any downslope property lines. It is the *Qualified Professional's* responsibility to certify that this minimum is applied. The minimum horizontal distance between any portion of a disposal field (except solid pipe) and an exposed downward sloping impermeable stratum or *bedrock* in "cut" slope will be 50 feet.

OWTS Located Near Public and/or Domestic Water Systems

San Bernardino County relies on local aquifers for both public and private water supplies. Complete *site evaluation* includes identifying and documenting all water supply wells. Setbacks are based on proximity to both public water and *Domestic Water* systems to protect water quality. The identification and location of nearest water supply wells shall be included in any *OWTS* proposal.

Domestic Water Well Usage

Many *domestic water* supply wells in San Bernardino County are located throughout the desert and rural unincorporated areas. In these areas, *Domestic water* supply wells are often used on *parcels* that also utilize *OWTS*. To ensure the protection of *groundwater* from the impact of an *OWTS*, the following requirements exist:

- Two and a half acres minimum for newly created *parcels*.
- Minimum setback distances between the *OWTS* and any water supply well.
- All current water well standards must be met.

Public Water Systems

Existing or proposed *OWTS* near *public water supply wells* and *surface water* treatment plant intakes have the potential to adversely impact source water quality. Due to this possibility:

- Increased setback requirements are necessary for *parcels* located within a 150-foot radius of a *public water supply well*.
- All current *public water supply well* standards must be met.

The table below provides information to determine the minimum setbacks for *OWTS* near *public water supply wells*.

If the OWTS...		The minimum setback will be...
Does not exceed 10 feet in depth,	➤	150 feet.
Exceeds 10 feet in depth,	➤	200 feet.
Exceeds 20 feet in depth,	➤	600 feet.

OWTS Near Surface Water

Intake Points

The following minimum setbacks are determined when *OWTS* are located:

- Near or upstream of a public *surface water* intake point (reservoir, lake, or flowing water body).
- Within the catchment of the drainage area.

Minimum Setback Requirements

Existing OWTS near *public water systems* must meet minimum setback requirements to that water system to the greatest extent practicable. If the minimum setbacks cannot be met, the *OWTS* must use mitigation measures to ensure the public water source is not adversely affected.

When the <i>OWTS</i> is located...	Then...
Within 1,200 feet of the intake point	The setback will be no less than 400 feet from the high-water mark.
More than 1,200 feet, but less than 2,500 feet from the intake point	The setback will be no less than 200 feet from the high-water mark.
Greater than 2,500 feet from the intake point	There is no additional setback requirement.

New *OWTS* installed on *parcels* created before the *LAMP* adoption date of June 23, 2017, with an existing water well, which are unable to meet the setback requirements to that well, may be approved by EHS with appropriate mitigation measures.

New *OWTS* proposed on *parcels* created after the *LAMP* adoption date of June 23, 2017 will not be granted approval if the minimum setbacks cannot be met.

Chapter 5: OWTS Design and Construction

The proposed design of the *OWTS* must address the limiting factors of the *site* and meet all San Bernardino County *OWTS* standards. *Percolation test* results along with topographical, geologic, and hydrologic conditions are determined by the *Qualified Professional* and outlined in the percolation report submitted to EHS. To protect water quality and public health, minimum criteria have been developed to ensure all factors are identified in the design proposal.

Design Criteria

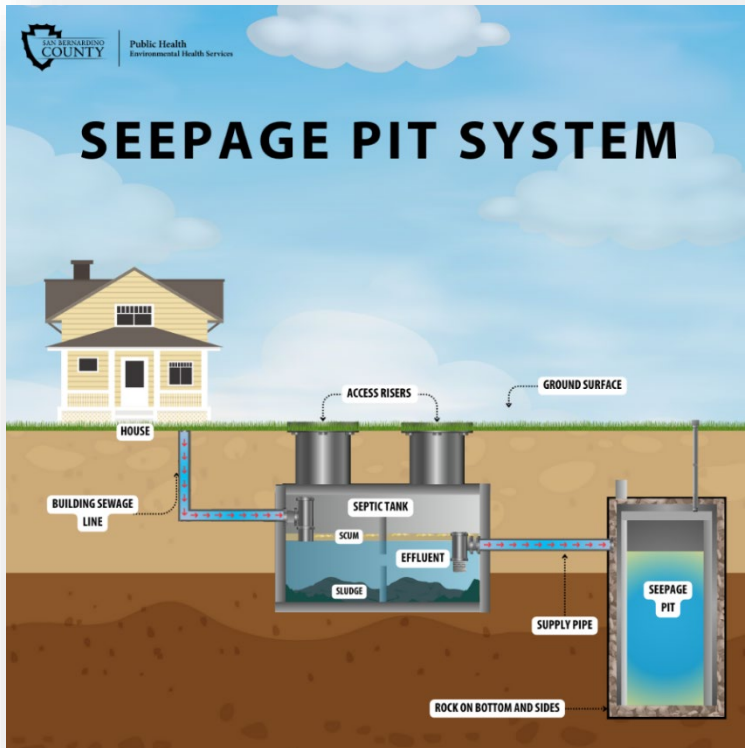
Sewage Holding Tanks

Additional conditions as required by the *RWQCB* apply to *SHT*. More information regarding the allowable conditions for *SHT* and specific requirements can be found in Chapter 6.

In accordance with [San Bernardino County Code § 33.0872](#):

“No person or entity shall install, utilize, or control the use of any *sewage holding tank* within the unincorporated area of the County of San Bernardino for the confinement of sewage discharged from a dwelling, business establishment, or other facility except upon conditions provided in [§33.0873](#) herein and possessing a current unsuspending, unrevoked *permit* to do so from DEHS pursuant to the procedures set forth in San Bernardino County Code [Title 3, Division 3, Chapter 2](#) and paying fees to DEHS in accordance with the San Bernardino County Code Schedule of Fees.”

Seepage Pits



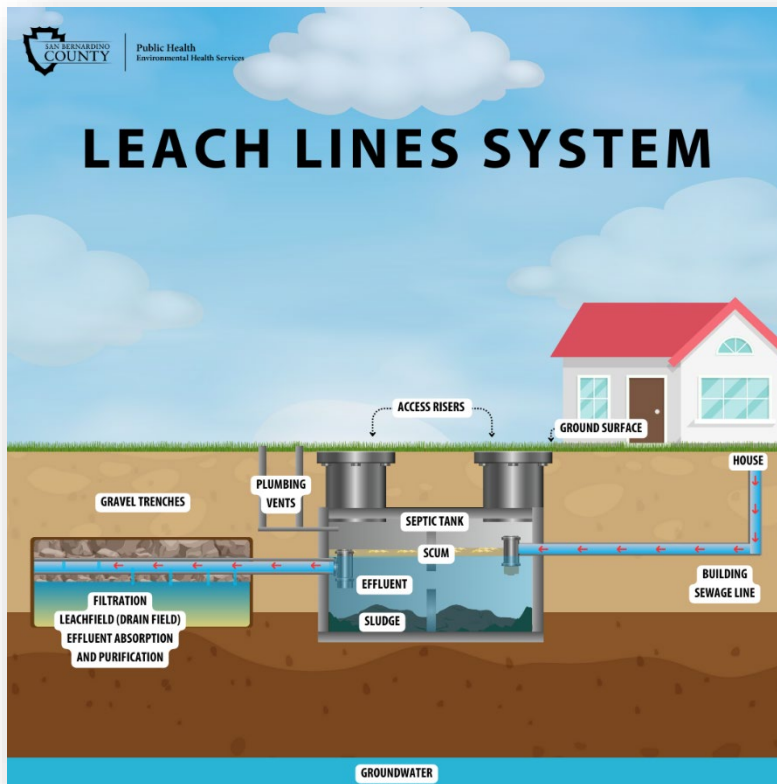
The [San Bernardino County Code §33.0893](#) prohibits the use of *seepage pits* in the *mountain regions*. The *RWQCB* has also prohibited *seepage pits* in areas that have been determined to have degraded *groundwater*.

Seepage pit percolation rates are measured in gallons/square feet/day (also known as the design Q) and are determined by the *percolation test* results. Design rates for *seepage pits* are determined by the design flow or square feet of pit/100 gallons *septic tank* capacity or whichever is most conservative.

If the percolation rate is less than 10 Minutes Per Inch (MPI), all the following criteria must be met:

- The separation to *groundwater* must be at least 40 feet from the bottom of the *seepage pit*, and
- A sieve analysis of the *soil*, for a thickness of 10 feet below the bottom of the *seepage pit*, must contain at least 15% fines passing the #200 United States standard sieve.

Leaching Trenches



The *RWQCB* has prohibited the use of leaching trenches in areas that have been determined to have degraded *groundwater*.

Leach line percolation rates are measured in MPI and are determined by a *percolation test*. Once determined, the MPI is converted to square feet/gal/day using the table in the guidance document *Percolation Testing and Reporting Standards for OWTS*.

Sewage application rates for leach lines are converted to a design rate expressed in square feet of

absorption area per 100 gallons of *septic tank* capacity. Gallons per day are calculated using the most current edition of the California Plumbing Code. There shall be a minimum of five feet of original *soil* between the bottom of the leaching trench and *groundwater*. However, faster percolation rates will increase this separation requirement.

If the percolation rate is less than five MPI, the five feet of *soil* below the bottom of the leaching trench and the *groundwater* must both contain:

- At least 15% of material passing the #200 United States standard sieve, basis 100% 3/8" and
- The representative *soil* must be comprised of less than 25% impermeable rock.

If the percolation rate is less than five MPI and the above requirements cannot be met, a 40-foot separation (based on recorded data and/or observed *mottling*) must be maintained between the bottom of the leach trench, and the highest current or historic *groundwater* level based on recorded data or observed *mottling*.

The required separation may be reduced to two feet for leach lines where an *ATS* with disinfection is provided in accordance with the *OWTS* Policy. Approval from EHS is required for all *ATS*.

When computing the absorption area of the leach line *dispersal system*, the maximum allowable infiltrative area (as an infiltrative surface) per square foot of trench is seven square feet. The maximum allowable trench width is three feet. Where leaching chambers are used, the maximum allowable decreased leaching area per *International Association of Plumbing and Mechanical Officials (IAPMO)* certified *dispersal systems* is computed by using a multiplier of .70.

Disposal fields, trenches, and leaching beds will not be paved over or covered by concrete or a material that is capable of reducing or inhibiting evaporation of sewer *effluent*. *Dispersion Systems* covered with any impermeable material, including but not limited to paving, building foundation slabs, driveways, storage sheds, and/or plastic sheeting will not be approved.

Maximum Allowable Flow

The maximum allowable flow for each one-half acre *development* is 300 gallons per day for *parcels* within the regions of Santa Ana *RWQCB* and Colorado River Basin *RWQCB* and 250 gallons per day for *parcels* within the regions of the Lahontan *RWQCB*.

For Residential *developments*, if the projected flow rate is more than allowed above or more than one *EDU* is proposed per one-half acre, Alternative Treatment is required.

For Commercial or Industrial *developments*, if the projected flow rate is more than allowed above or more than 20 *fixture units* are proposed per one-half acre, an ATS is required. This flow rate requirement may be prorated on *parcels* smaller than one-half acre.

Minimum Allowable Replacement Area

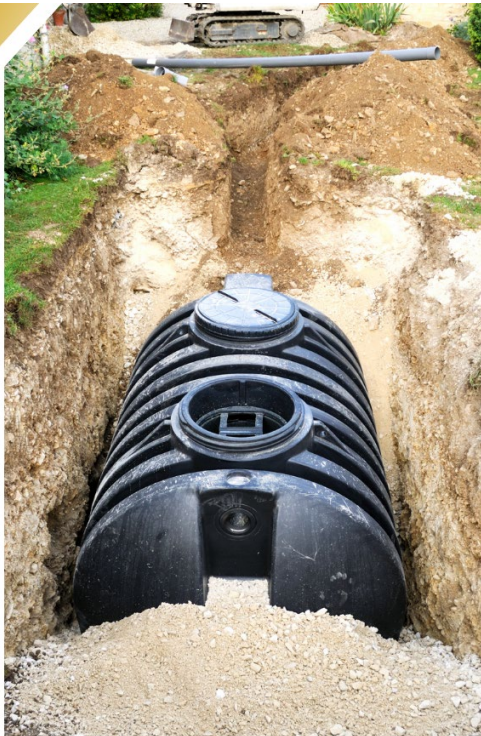
For new *OWTS*, the minimum allowable replacement area is an area which will remain *undeveloped* and available to be used once the primary *dispersal system* is replaced. This area must be 100% of the size of the original *dispersal system* proposed. The 100% replacement area must meet all minimum criteria outlined within the *LAMP*.

For an *OWTS* installed prior to the *LAMP* adoption date of June 23, 2017, where the *parcel* cannot support both a primary *dispersal system* and 100% replacement area, EHS will assist each customer on a case-by-case basis while protecting water quality and public health.

Pump Systems

Pump systems may be used where an adequate disposal area cannot be reached by gravity flow. All construction details for designed systems utilizing a pump system are subject to review and approval by Building and Safety. Minimum conventional construction details can be found in the currently adopted California Plumbing Code.

OWTS General Septic Tank Sizing and Requirements



Construction and installation requirements for *septic tanks* are reviewed and approved by Building and Safety and must be in compliance with the California Plumbing Code. Once construction and installation plans are approved, Building and Safety will issue construction *permits*. Sewage disposal systems sized using the estimated waste/sewage flow rates will be calculated as follows:

- Waste/sewage flow, up to 1,500 gpd: $\text{Flow} \times 1.5 = \text{Septic Tank Size}$.
- Waste/sewage flow, over 1,500 gpd: $(\text{Flow} \times 0.75) + 1125 = \text{Septic Tank Size}$.
- Secondary tanks shall be sized for total flow per 24 hours.

The *septic tank* capacity shall not be reduced or otherwise affected by the existence or proposed installation of a *graywater* system servicing the premises.

Septic Tank Capacity – Single Family Residences

The *septic tank* capacity for a single-family residence or *EDU* is based on the number of bedrooms contained in the unit.

For the purposes of sizing a *septic tank*, a bedroom is defined using the following guidelines:

- After the living room, dining room, family room, kitchen, bathrooms, and laundry rooms have been established, all other habitable rooms totaling at least seventy 70 square feet in size are to be considered bedrooms suitable for sleeping purposes, whether or not they contain closets or have access to a bathroom.
 - This includes, but is not limited to dens, offices, libraries, studies, weight rooms, game rooms, sewing rooms, workshops and lofts.
- Rooms that open to a living room, dining room, family room, kitchen, or entry way and have a single unobstructed opening (no doors) with a minimum 50% opening of the total wall space (minimum six feet wide) with archways or other acceptable means shall not be considered a bedroom.
- Rooms that can only be accessed through another bedroom are to be considered part of that bedroom, such as a primary suite, and are not counted as an additional bedroom.

Plans may be reviewed on a case-by-case basis by EHS when it is not clear as to whether a room should be defined as a bedroom. Any cases which will require the relocation or modification of doorways are to be reviewed and approved by Building and Safety to address any structural considerations.

The table below provides a summary of the *septic tank* capacity requirements for a Single-Family Residence.

Number of Bedrooms	Gallons of Effluent Per Day	Minimum Septic Tank Capacity (gallons)
1-2	500	750
3	670	1,000
4	800	1,200
5-6	1,000	1,500

Septic Tank Capacity – Multi-Unit Residences

The *septic tank* capacity for Multi-Unit Residences utilizing a separate *OWTS* will be sized independently. The *septic tank* capacity for Multi-Unit Residences utilizing a combined *OWTS* will be sized according to the California Plumbing Code sizing for Multiple Dwelling Units or Apartments.

Multiple Dwelling Units or Apartments- One Bedroom Each	Minimum Septic Tank Capacity (gallons)
2 units	1,200
3	1,500
4	2,000
5	2,250
6	2,500
7	2,750
8	3,000
9	3,250
10	3,500

Notes: The following notes apply to the table above:

- Extra bedroom, 150 gallons (568L) each
- Extra dwelling units over 10: 250 gallons (946L) each
- Extra *fixture units* over 100: 25 gallons (94.6L) per *fixture unit*.
- *Septic tank* sizes in this table include sludge storage capacity and the connection of domestic food waste disposers without further volume increase.

When creating design proposals for an *OWTS*, developers must consider the following as multiple dwelling units:

- Duplexes, triplexes, etc.
- *ADUs*.
- Guest houses, casitas, mother-in-law suites, or similar.

Septic Tank Capacity – Commercial Facilities

The *septic tank* capacity for commercial facilities is based on the estimated daily flow, or the number of drainage *fixture units* as determined by the California Plumbing Code, whichever is greater.

Maximum Fixture Units Served	Minimum Septic Tank Capacity (gallons)
15	750
20	1,000
25	1,200
33	1,500
45	2,000
55	2,250
60	2,500
70	2,750
80	3,000
90	3,250
100	3,500

Extra *fixture units* over 100: 25 gallons per *fixture unit*

When creating design proposals for an *OWTS*, developers must:

- Consider the estimated flows for all projected activities,
- Include sufficient technical information to support the proposed design flow estimates, and
- Provide an itemized list of *fixture units* for the proposed design.

When leach lines or *seepage pits* serve a common system for two or more commercial facilities, add 30% more square footage to the total absorption area.

Prohibited Discharge Conditions for OWTS

To ensure proper functioning of an *OWTS*, the following shall not be discharged into *OWTS*.

- *Surface water*, rain, swimming pool/spa filter backwash, and/or any other runoff.
- Toxic or hazardous chemicals.
- *Water softener* and/or iron filter discharge.

Chapter 6: Alternative Treatment Systems

To facilitate *development* of *parcels* that are unsuitable for conventional OWTS, ATS and/or ADS may be considered. Differing requirements and monitoring measures are included with ATS/ADS approval from EHS and/or the RWQCB.

ATS are required:

- If it is determined that a new OWTS or an OWTS undergoing *major repair* or replacement cannot meet the requirements of the LAMP.
- To meet Tier 3 requirements when installed near impaired bodies of water on the 303(d) list (refer to Chapter 7 for more information).
- Where the underlying *groundwater* exceeds 10 mg/L nitrate-nitrogen based on historical data and is an aquifer that supplies drinking water.
- Where minimum *parcel* size requirements cannot be met.
- When any conditions are present, which may create a public health hazard at the discretion of EHS.

Alternative Treatment/Dispersal System Proposal Requirements

All alternative OWTS must be designed by a *Qualified Professional* as allowed by their registration and installed by a contractor duly licensed by the Contractors State License Board of the State of California to install OWTS (A, C-42 or C-36).

Residential Alternative Treatment/Dispersal System Proposals

Residential ATS proposals will be prepared by a *Qualified Professional* and must include:

- Application for review.
- Existing requirements from the respective RWQCB for the ATS (if applicable).
- Plot Plan.
- Approved EHS Percolation Report.
- ATS review fees.
- Written ATS proposal, including:
 - *National Sanitation Foundation (NSF)* certification or equivalent.
 - A description of the proposed project, in the percolation report and/or the plot plan, and the type of wastewater which will be discharged to the OWTS, and classification of it as domestic or high-strength wastewater.
 - A schedule of all materials and products that are used to construct the system.
 - Literature from the manufacturer including:
 - All technical details and information regarding maintenance and/or repairs.
 - Procedures for replacement of critical items in the event of failure. Repairs should be initiated within 48 hours following failure, and measures, such as frequent *septic tank* pumping will be

- implemented to prevent sewage from surfacing before repairs can be made.
- Total nitrogen in the *effluent* from the *ATS* meets a minimum 50% reduction in total nitrogen when comparing the 30-day average influent to the 30-day average *effluent*.
- Testing data which provides evidence that ensures *effluent*:
 - From the *ATS* will not exceed a 30-day average Total Suspended Solids (TSS) of 30 mg/L.
 - Will have a fecal coliform bacteria concentration less than or equal to 200 Most Probable Number (MPN) per 100 milliliters (for systems utilizing disinfection near a body of water impaired for pathogens or where required by EHS or *RWQCB*).
- Which treatment mode will be used if the system has multiple treatment modes.
- The *effluent* sample frequency, as determined by EHS.
- The name and contact information for the *Qualified Service Provider* that will maintain the system.
- The name of the Environmental Laboratory Accreditation Program (ELAP) certified laboratory where the *effluent* samples are analyzed.

Commercial Alternative Treatment/Dispersal System Proposals

ATS proposals must be prepared by a *Qualified Professional* and include:

- An application for review.
- Existing requirements from the respective *RWQCB* for the *ATS* (if applicable).
- A Plot Plan.
- An approved EHS Percolation Report.
- *ATS* review fees.
- A written *ATS* proposal, including:
 - A description of the proposed project, in the percolation report and/or the plot plan, and the type of wastewater which will be discharged to the *OWTS*, and classification of it as domestic or high-strength wastewater.
- A schedule of all materials and products that are used to construct the system.
- Literature from the manufacturer including:
 - *NSF* certification or equivalent.
 - All technical details and information regarding maintenance and/or repairs.
 - Procedures to ensure maintenance, repair, or replacement of critical items in the event of failure. The repairs should be initiated within 48 hours following the failure, and measures, such as frequent *septic tank* pumping, must be implemented to prevent sewage from surfacing before repairs can be made.
 - Total nitrogen in the *effluent* from the *ATS* meets a minimum 50% reduction in total nitrogen when comparing the 30-day average influent to the 30-day average *effluent*.

- *Effluent* from the *ATS* does not exceed a 30-day average Total Suspended Solids (TSS) of 30 mg/L and,
- *Effluent* has a fecal coliform bacteria concentration less than or equal to 200 Most Probable Number (MPN) per 100 milliliters (for systems utilizing disinfection near a body of water impaired for pathogens or where required by EHS or *RWQCB*).
- Which treatment mode will be used if the system has multiple treatment modes.
- The *effluent* sample frequency.
- The name and contact information for the *Qualified Service Provider* that will maintain the system.
- The name of the ELAP certified laboratory where the *effluent* samples are analyzed.

Installation Requirements for Alternative Treatment/Dispersal Systems

Installation Requirements for Alternative Treatment Systems

The following are the requirements for *ATS*:

- Ensure all the following individuals are present onsite at final installation inspection:
 - *Qualified Professional*,
 - Installation contractor or manufacturer's representative,
 - Representative from EHS, and
 - Individuals from any other required regulatory agencies.
- Install a visible or audible alarm, as well as a telemetric alarm that alerts the owner or the owner's agent when there is a system failure or malfunction.
- Have a final inspection conducted by Building and Safety.
- EHS must record a "*Notice of Condition*" on the property title within 30 days of installation. Proof of recordation will be provided to the owner.
- The owner must obtain an annual *operating permit* for *ATS* from EHS.
- Provision of a copy of a valid *Qualified Service Provider* contract.

Permit Operation Requirements for Alternative Treatment Systems

An annual *operating permit* is required for the lifetime of all *ATS*. EHS may suspend or revoke an *operating permit* for failure to comply with any monitoring, maintenance, or other requirements of the *permit*. If a *permit* is suspended or revoked, the system shall cease wastewater discharge until the suspension or revocation is lifted or a new *permit* is issued.

- A service contract with a *Qualified Service Provider* is required for the lifetime of the system and a copy of the contract renewal must be submitted to EHS by January 30th of each calendar year.

- The property must connect to sewer as soon as it becomes available, and the *ATS* must cease operation and be properly abandoned. A *permit* must be obtained from Building and Safety for the abandonment of the system.
- EHS will be allowed access to inspect the system as necessary, and
- The sampling requirements must be met for the specific type of system outlined below.

Wastewater Sample Requirements for Alternative Treatment Systems

All *ATS* are required to have wastewater samples taken and analyzed to ensure the functionality of the system. The following chart outlines the frequency of required sampling based on the type of *ATS*. The Owner's *Qualified Service Provider* is responsible for sampling and reporting requirements.

Type of Alternative Treatment System	Sampling Frequency for QSP
All Systems	6 months after start-up
THEN	
Systems with disinfection	Quarterly
Systems without disinfection	Annually

The sampling and reporting requirements specify:

- Samples must be taken by a *Qualified Service Provider* and analyzed by an ELAP accredited laboratory.
- *Effluent* samples will be taken:
 - After the treatment components, and
 - Before the *dispersal system*.
- Required sampling constituents include:
 - Total nitrogen,
 - Total Suspended Solids, and
 - Fecal coliform bacteria concentration (for systems with disinfection).
- Sample results will be submitted to EHS within 30 days.
- Samples must include the geographic coordinates (latitude and longitude) of the sampling location.

Late fees and/or billable inspection services may be imposed for systems out of compliance with sampling requirements. In instances of prolonged noncompliance,

enforcement actions may proceed up to and including *permit* suspension/revocation and/or further legal action.

Sewage Holding Tanks

SHTs can allow for *development* or for repairs for existing dwellings in certain areas where *OWTS* cannot meet the criteria.

A *SHT* is defined as a sewage facility, of a temporary nature, that has no means of discharge and requires the services of a registered liquid waste hauler for pumping and offsite disposal to an approved wastewater treatment facility. A holding tank may be approved for a structure if the following conditions are met:

1. A holding tank may be approved for a period not to exceed two years. Documentation from the sewerage agency for the area must be submitted which indicates the *site* will be provided sewer service within the two-year period. A one-time extension of the two-year connection requirement may be granted by EHS for cause, not to exceed four years. Any further extensions will require the approval of the appropriate *RWQCB*.
2. No *SHT* will be placed in any portion of a public right-of-way without written approval from the responsible public agency.
3. No wholesale, retail food facilities, or commercial projects will use a *SHT*.
4. When a sewer line becomes available, destruction or removal of the holding tank in the manner approved by EHS is required. Destruction or removal of the holding tank and connection to the sanitary sewer will occur within sixty (90) calendar days of sewer availability. The owner must obtain a *permit* from Building and Safety for the abandonment of the *SHT*.

When to Allow for Sewage Holding Tanks

Certain areas of special consideration, termed Prohibition Areas, are pre-approved within San Bernardino County for the use of *SHTs*. Other areas may qualify for the temporary use of a *SHT* at the discretion of EHS if all of the requirements below are met and the *SHT* is:

- Within the boundaries (or sphere of influence) of a district or sewerage entity.
- Unsuitable for a conventional or *ATS*. Documentation must be provided to EHS to show that a conventional or alternative wastewater treatment system is not feasible.
- Connected to a signed agreement with the sewerage entity for the acceptance of the sewage.

EHS makes every effort to accommodate existing residences that are not within the boundaries of a sewerage entity.

Sewage Holding Tank Sizing

The minimum liquid capacity of a holding tank for one and two family dwellings must be in accordance with Table 805.2 of the International Private Sewage Disposal Code. Other buildings will have a minimum five day holding capacity, but not less than 2,000 gallons (7570 L). Sizing will be in accordance with Table 802.7.2. Not more than four holding tanks will be installed in series.

Table 805.2 Minimum Liquid Capacity of Holding Tanks

Number of Bedrooms	Tank Capacity (gallons)
1	2,000
2	2,000
3	2,000
4	2,500
5	3,000
6	3,500
7	4,000
8	4,500

Sewage Holding Tank Requirements

EHS must approve all proposals prior to the installation of *SHTs*. The following must be provided for review and approval by EHS:

- SHT proposal that the SHT will be constructed from an approved material which meets requirements indicated in California Plumbing Code for *septic tanks*.
- Properties served by a *SHT* must obtain an annual *operating permit* from EHS.
- A completed *SHT* Application, which includes a written agreement between the:
 - Property owner,
 - EHS, and
 - The sewerage entity.
- A copy of the current maintenance contract with a Liquid Waste Hauler (LWH). The contract will be placed on file with EHS and must include the following terms:
 - A minimum of one inspection of the *SHT* per month, with servicing (pumping) as necessary.
 - The pumper will provide all emergency servicing required.

- In the event the contract is canceled, the LWH will immediately notify EHS, and the owner will have 30 calendar days to submit a new LWH contract to EHS.
- Annual *operating permits* are not transferable. When property ownership changes, the LWH will immediately notify EHS of the change in ownership. The new owner will have 30 calendar days to submit a change of ownership application, including current SHT certification to EHS.
- A “*Notice of Condition*” will be recorded on the property within 30 days of SHT installation.

After EHS approval is issued, Building and Safety will review and approve all plans for the design, location and installation of *SHTs*.

Late fees and/or billable inspection services may be imposed for systems out of compliance with SHT requirements. In instances of prolonged noncompliance, enforcement actions may proceed up to and including *permit* suspension/revocation and/or further legal action.

Chapter 7: Tier 3 – Impaired Areas

Section 303(d) of the Federal Clean Water Act requires states to review, update and submit a list of impaired water bodies to the EPA. This includes areas that do not meet water quality standards due to various pollutants. Both the *SWRCB* and the *RWQCB* analyze water quality monitoring data every two years and determine if the water bodies of the state should be added, remain, or be removed from the State of California's 303(d) list. The EPA has final approval of this list.

Once listed, the *OWTS* Policy requires that all *OWTS* located near these impaired water bodies be addressed and managed. This is accomplished in one of three different ways.

First, the *RWQCB* can establish a Total Maximum Daily Load (TMDL) and create its own implementation program for management of these impaired areas. An adopted TMDL implementation plan supersedes all other requirements in Tier 3. All TMDL implementation plans adopted after the effective date of the *OWTS* Policy that contain load allocations for *OWTS* will include a schedule that requires compliance with the load allocations as soon as practicable, given the watershed-specific circumstances. Currently, no TMDLs have been established by the *RWQCB* for San Bernardino County for the impaired water bodies on the 303(d) list.

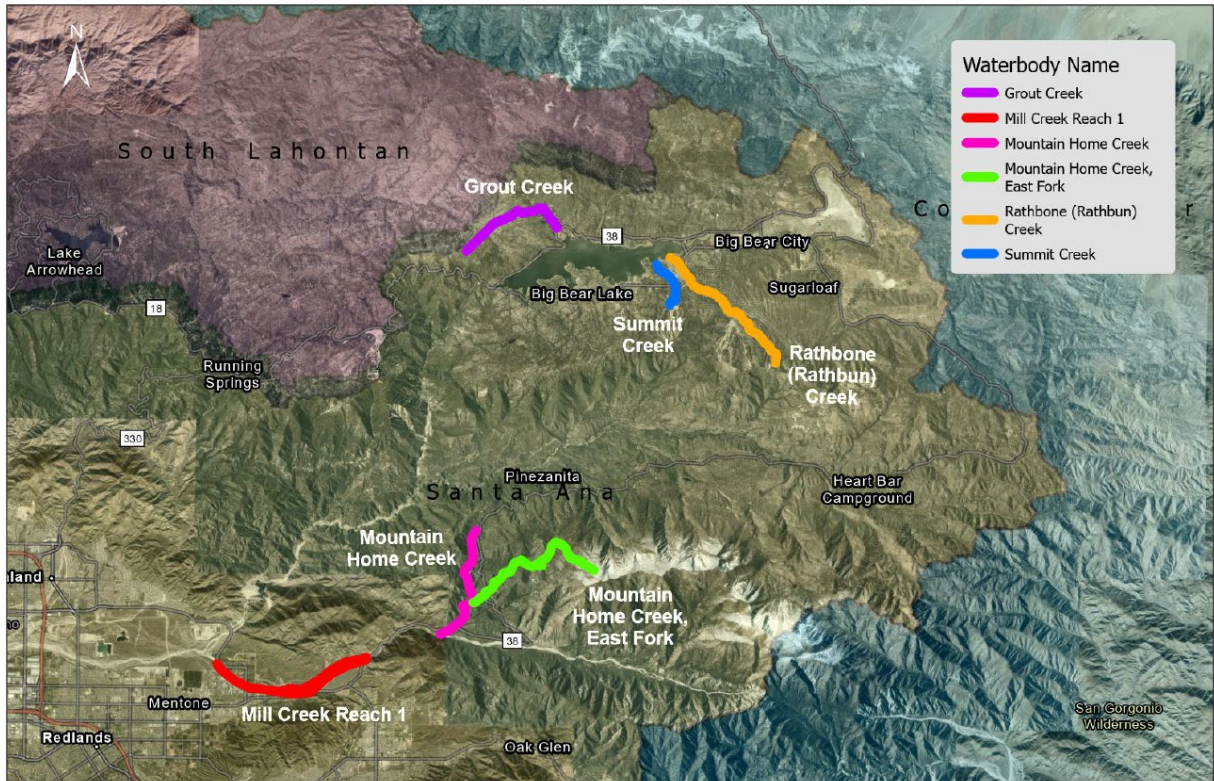
Second, special provisions for *OWTS*, also called an Advanced Protection Management Program (APMP) can be created by the *local agency* and are outlined in the approved program. The geographic area for each water body's APMP is defined by the applicable TMDL, if one has been approved. If there is not an approved TMDL, it is defined by an approved *LAMP*, if it contains special provisions for that water body.

Third, if the geographic area is not defined by an approved TMDL or an APMP, new or *replacement OWTS* within 600 feet of impaired water bodies listed in Attachment 2 must meet the applicable specific requirements of Tier 3.

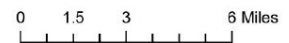
Currently, there is no approved TMDL for San Bernardino County, and an established geographical area for an APMP because the limit has not been established. Therefore, EHS has implemented *OWTS* conditions from Tier 3 requirements provided in the *OWTS* Policy.

Geographic Areas for Impaired Water Bodies

EHS uses a geographic area that includes the 600 linear feet, in the horizontal map direction, of a water body listed on the 303(d) list, 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.



San Bernardino County
Impaired Waterways (303(d)-list).



Requirements for OWTS in Impaired Areas

In the absence of an adopted TMDL implementation plan, all new and/or *replacement OWTS* must utilize alternative treatment and meet all the requirements for *ATS* including but not limited to:

- An annual *operating permit*.
- Monitoring and maintenance of the *OWTS*.
- Connecting to a sewer as soon as available, and properly abandoning the *ATS*.
- Be equipped with a visual and/or audible alarm, as well as a telemetric alarm, which will alert the owner and service provider in the event of a system malfunction.
- Meet performance requirements for nitrogen/pathogen impairment.

OWTS Located Near Water Bodies Impaired for Nitrogen

When an *OWTS* is located near water bodies which are impaired for nitrogen, the *effluent* from the supplement treatment component must meet a 50% reduction in total nitrogen when comparing the 30-day average influent to the 30-day average *effluent*.

OWTS Located Near Water Bodies Impaired for Pathogens

When an *OWTS* is located near a water body impaired for pathogens, the alternative treatment components must provide sufficient pretreatment of the wastewater so *effluent*:

- Does not exceed a 30-day average Total Suspended Solids (TSS) of 30 milligrams per liter (mg/L), and
- Achieves a fecal coliform bacteria concentration less than, or equal to, 200 MPN per 100 milliliters.

Impaired Water Bodies

Within San Bernardino County, the *SWRCB* has identified various impaired water bodies, per Attachment 2 of the [OWTS Policy](#). The water bodies listed have been specifically identified by the [303\(d\) list](#).

Name	Region	Impairment
Mill Creek Reach 1	Santa Ana	Pathogens
Big Bear Lake		Nitrogen
Mountain Home Creek		Pathogens
Mountain Home Creek, East Fork		Pathogens
Grout Creek		Nitrogen
Rathbone (Rathbun) Creek		Nitrogen
Summit Creek		Nitrogen

Chapter 8: Special Consideration Areas

Prohibition Areas

Due to the geology and hydrology of certain areas within San Bernardino County, discharge of waste from *OWTS* is prohibited by the *RWQCB* to protect water quality and public health. These prohibition areas are subcategorized between the three *RWQCBs* as each has different requirements.

Santa Ana Regional Water Quality Control Board

- Grand Terrace (County Service Area 70, Improvement Zone H)
- Yucaipa – Calimesa (Yucaipa Valley Water District)
- Lytle Creek (Above 2,600 feet in elevation)
- Mill Creek (Above 2,600 feet in elevation)
- Bear Valley (Including Baldwin Lake drainage area)

Colorado River Basin Regional Water Quality Control Board

- Town of Yucca Valley
- The City of Twentynine Palms (under review)

Lahontan Regional Water Quality Control Board

- The Silverwood Lake watershed
- Deep Creek and Grass Valley Creek *watersheds* above elevation 3,200 feet.
- Mojave Hydrologic Unit Prohibition Area 3 (Includes Crestline and Lake Arrowhead areas)

Sewage Holding Tanks in Prohibition Areas

Properties located within Prohibition Areas are not required to submit a Percolation Report to EHS as part of a *Sewage Holding Tank* application. Additional *SHT* guidance can be found in Chapter 6.

Special Considerations in Prohibition Areas

Special considerations in prohibition areas must first be granted by the *RWQCB* before submittal to EHS and Land Use Services. A *Qualified Professional* must present evidence to the *RWQCB* that the new *OWTS* will not result in pollution, contamination, or nuisance.

Crestline and Lake Arrowhead Prohibition Areas

Under the Lahontan Water Board Order No. 6-81-3 for Crestline and Lahontan Water Board Order No. 6-84-93 for Lake Arrowhead, the County is authorized to issue *OWTS* building *permits* in these exemption areas without Lahontan *RWQCB* approval. EHS evaluation will ensure that specific Water Board Order exemption criteria are met.

Designated Maintenance Areas: Santa Ana Regional Water Quality Control Board

History

Sanitary surveys conducted in several areas of the Santa Ana region in 1973 concluded that sanitary waste disposal practices were polluting or in danger of polluting *surface water* resources used for municipal supply. In response, the Santa Ana *RWQCB* prohibited the use of *OWTS* after July 1, 1973, and also set up prohibition exemption criteria for these impacted areas. This prohibition, however, was unable to address an existing failing or substandard *OWTS* already in use within the areas of concern. To remedy this, as well as prevent future water quality concerns with the addition of a new *OWTS*, the San Bernardino County Board of Supervisors adopted a Designated Management Agency (*DMA*) ordinance for the area in 1986, which was later amended May 8, 2012.

Requirements

A new *OWTS* within a *DMA* require a valid percolation rate, which may require *percolation testing* if EHS does not have one on file. Additionally, a valid *DMA permit* is required to be maintained with the *RWQCB*.

The *DMA* ordinance also requires homeowners within the *DMA* to maintain an *operating permit* and allow for inspection by EHS biennially. EHS currently has approximately 1,500 *OWTS permitted* in the *DMAs*. The inspection provides assessment of the *OWTS* for signs of failure, such as standing or surfacing sewage, exposed tank or leach lines, or any other issue that could lead to the contamination of the *groundwater* and *surface water*. Should the inspector find evidence of system failure, EHS will work with the owner to quickly mitigate the issue. In addition, the change of ownership of a property will require *OWTS Certification* prepared by a *Qualified Professional*. These protection measures allow an *OWTS* to continue to be utilized in these impacted areas.

Forest Service Cabins

San Bernardino County currently has over 700 Recreational Residences, more commonly referred to as Forest Service Cabins, in the San Bernardino National Forest. Cabins are privately owned but the land is owned by the Forest Service. Most forest service cabins are within a *DMA* and in addition to the *DMA* requirements written approval from the Forest Service, including the *parcel* number and specific cabin number, must be provided prior to Building and Safety or EHS *permit* approval. *SHTs* may be *permitted* upon EHS approval.

Locations

The following are all the *DMAs* located within the United States Forest Service:

- Polique Canyon Tract
- Lakeview Tract
- Pine Knot Tract

- Metcalf Creek Tract
- Big Bear Tract
- Willow Glen Tract

The following three communities are not within the boundaries of the Forest Service have their own *DMA* ordinance:

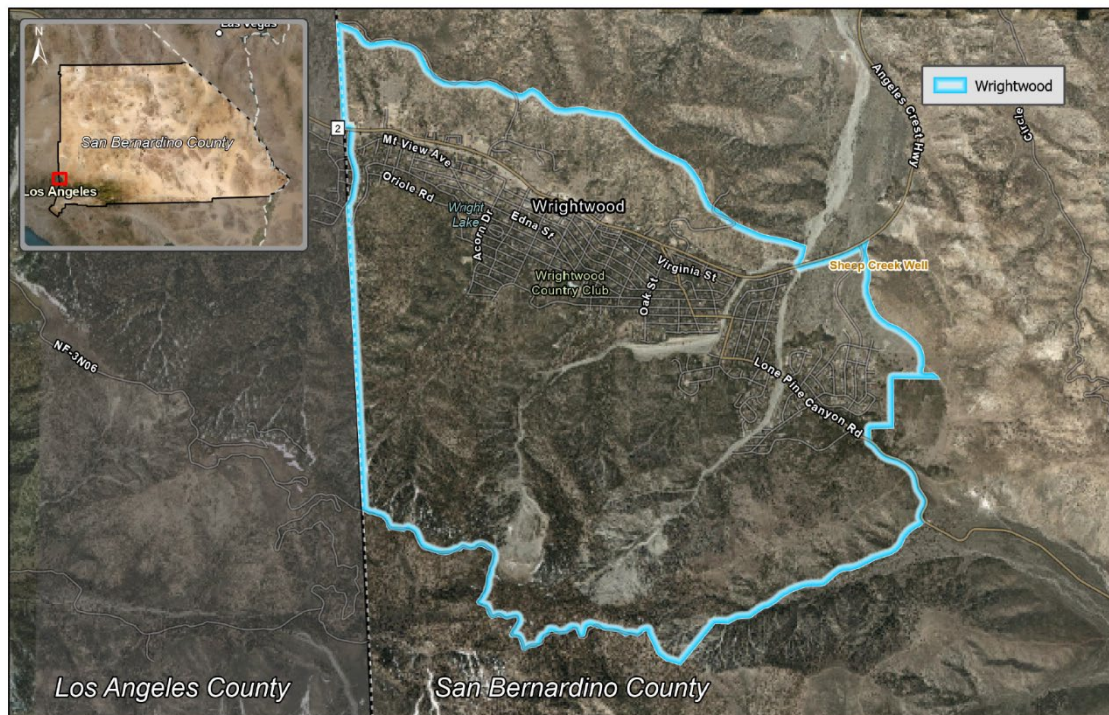
- Mountain Home Village
- Forest Falls
- Angelus Oaks

Wrightwood

Wrightwood is located at an elevation of 6000 feet at the eastern end of the San Gabriel Mountains in the Angeles National Forest. This community has historically high *groundwater* levels and no municipal sewer services are available.

Certain areas within Wrightwood have been of concern due to *groundwater* being historically at or near ground level. As a result, all areas in Wrightwood will require a percolation report for *new or replacement OWTS*.

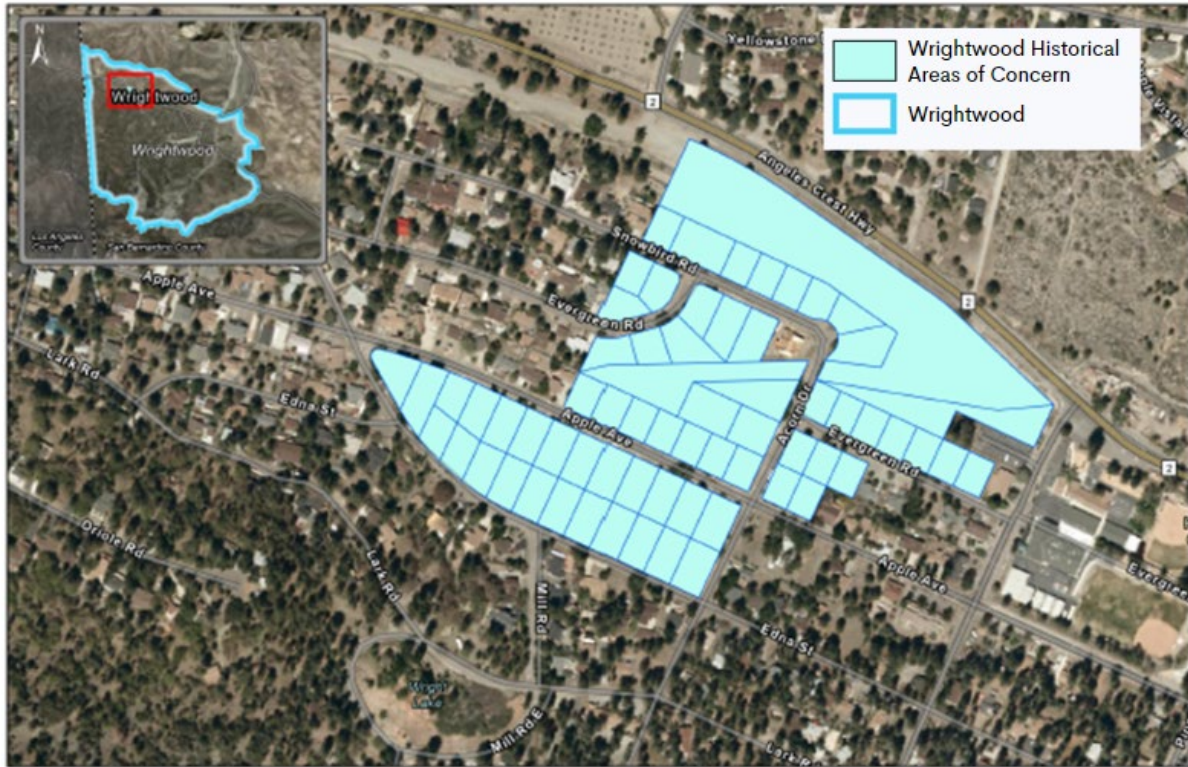
The percolation report must demonstrate compliance with all *LAMP* requirements. If *LAMP* requirements cannot be met, an *ATS* with disinfection will be required.



Wrightwood

0 0.25 0.5 1 Miles

Wrightwood Historical Areas of Concern



Wrightwood Blue Zone

0 0.03 0.05 0.1 Miles

Lake Williams

Lake Williams is a residential community located within the Santa Ana RWQCB in the San Bernardino Mountains approximately 3.6 miles southeast of Baldwin Lake. All homes in this community utilize *OWTS* with some residences also utilizing private water wells.



Lake Williams (Deadmans Lake)

0 0.05 0.1 0.2 Miles



Contaminant Study

The City of Big Bear Lake Department of Water and Power (BBLDWP) provides water to residents from two municipal supply wells located in the Lake Williams area. BBLDWP noted an increase in nitrate levels in one of the municipal supply wells beginning in 1990. In response, BBLDWP funded a study in 2006 to investigate and mitigate the nitrate levels in drinking water before they exceeded the 10 milligrams per liter (mg/L) Maximum Contaminant Level (MCL). The study ultimately determined the steady increase in nitrate levels was attributed to *OWTS*.

Requirements

To protect water quality, and mitigate an increase in nitrate concentrations, certain requirements have been established for the Lake Williams area. Alternative treatment with nitrogen reduction (*NSF 245*) will be required for all new and *replacement* *OWTS* in the Lake Williams area. All *major repairs* for *OWTS* will be reviewed on a case-by-case basis to determine whether *ATS* will be required.

Chapter 9: Reporting Requirements and Program Assessment

As the local lead agency within San Bernardino County, EHS collects required data and reports it to each *RWQCB*.

Annual Reporting to *RWQCB*

EHS must report the following information to each *RWQCB* on an annual basis:

- The quantity and location of complaints pertaining to *OWTS*, including which complaints were investigated and how the complaints were resolved. (Code Enforcement)
- All *permits* issued for new and *replacement OWTS*, including the *permit* number, location, and type of *permit*. (Building and Safety)
- Any approved variances for *OWTS permits*.
- A current list of the registered liquid waste haulers operating within San Bernardino County.
- All liquid waste hauler inspection reports.
- All new construction *permits* for domestic and municipal supply wells including the *permit* number, location, type of *permit*, and water quality sample results.
- All *OWTS* utilizing alternative treatment.

This information will be gathered for the previous calendar year and reported to each respective *RWQCB* no later than February 1st of each year.

Onsite Wastewater Treatment System Certification

OWTS Certifications of existing *OWTS* in connection with existing *development*, *new development*, and land use reviews will be utilized to assess the effectiveness of the *LAMP*.

OWTS Water Quality Assessment Program

The Water Quality Assessment Program (WQAP) is required by each *RWQCB* to provide a better understanding regarding how *OWTS* located within San Bernardino County are affecting and/or contributing to *groundwater* contamination. Requirements of the WQAP include individual well sampling, establishing the water quality baseline levels, constituents of concern and monitoring.

Individual Water Well Sampling

EHS permits and regulates individual water wells and small *public water systems* in San Bernardino County. As a condition, all new water wells are sampled for *total coliform* bacteria and nitrates. In some areas of concern, testing may also be necessary for arsenic, perchlorate, chromium VI and gross alpha and uranium.

Establishing Water Quality Baseline Levels

All community drinking water wells, which are utilized as a *public water system*, will be analyzed for chemicals regulated by Title 22 to ensure that the well meets drinking water standards. To establish water quality baseline levels, EHS reports data obtained from all *public water systems* regulated by EHS, all *permitted* individual and community drinking water wells and random sampling of existing wells as permitted by property owners.

Baseline data is used to maintain a reliable *OWTS* water quality assessment. This data that has been collected and compiled by San Bernardino County can be found in the five year Water Quality Assessment documents.

Constituents of Concern

As part of the WQAP, EHS has identified areas within San Bernardino County with elevated levels of constituents of concern. The following table indicates those areas and the constituents of concern. In addition to *total coliform* and nitrate testing, sampling will be required for all new well construction in the areas indicated (this list will be updated as new information dictates).

Constituent	Areas
Arsenic	<ul style="list-style-type: none"> • Hinkley • North of Barstow to State Line • Calico/Yermo • Newberry Springs to Ludlow • Kramer Junction • Pioneertown • 29 Palms and north of 29 Palms
Perchlorate	<ul style="list-style-type: none"> • Loma Linda • Rialto • Fontana • Ontario • Barstow (near the I-15 and Hwy 58 intersection) • Within a 5-mile radius of George Air Force Base
Gross Alpha and Uranium	<ul style="list-style-type: none"> • Pioneertown • Morongo Valley • Twin Peaks • Fawnskin • Crestline • Running Springs • Lake Arrowhead • Baldwin Lake
Chromium VI	<ul style="list-style-type: none"> • Hinkley • Oak Hills
Chlorinated solvents (TCE or PCE)	<ul style="list-style-type: none"> • Within a 5-mile radius of George Air Force Base

Pathogen and Nitrogen Monitoring

To distinguish water quality degradation, which is attributable to *OWTS*, EHS will monitor and collect water quality data for pathogens and nitrogen from the following available sources:

- *ATS*.
- Water quality sample data received from:
 - County agencies which have National Pollutant Discharge Elimination System *permits* (i.e., San Bernardino County Flood Control).
 - Various water agencies.
- For Wrightwood, EHS requires the standard water quality and quantity well driller report and monitor new private residential wells as allowed by the well owner in addition to monitoring wells.
- EHS will consider the use of the USGS computer vadose model tools or other vadose zone/ *groundwater* models or land use planning tools to assess *OWTS* impacts on *groundwater* during the five year assessment and reporting.
- *Groundwater* data collected as part of the *Groundwater Ambient Monitoring Assessment Program*.

EHS continues to search for new ways to monitor water quality and collaborate with other agencies to enhance the *WQAP* and further meet the needs of both the county and the jurisdictional agencies.

Program Assessment

Every five years an assessment is completed to evaluate the *LAMP* and determine the impact of an *OWTS* within the County on water quality. Since *development* within San Bernardino County is evolving, the *LAMP* will continue to be modified, as needed, to address the discovered impacts of *OWTS*. EHS reviews all collected data to support the *development* needs of San Bernardino County and its residents are being met.

All *groundwater* monitoring data generated must be submitted in *electronic deliverable format (EDF)* for inclusion into Geotracker. *Surface water* monitoring will be submitted to *California Environmental Data Exchange Network (CEDEN)* in a Surface Water Ambient Monitoring Program (SWAMP) comparable format. Please refer to the “Annual Reporting to *RWQCB*” section above regarding other reporting requirements.

Chapter 10: Resources

An *OWTS* is a significant investment for the property owner especially with the increased costs of newer systems or those that depend on alternative treatment. Yet, there is a lot of myth and misinformation about how to operate and maintain an *OWTS*. Education and outreach are critical to supporting an informed homeowner who is better able to assure proper use and operation of an *OWTS*. Accurate information and education help reduce the chance of failure from an improperly designed or poorly maintained system to protect *groundwater* and public health.

Direct Staff Contact

Education and outreach are achieved primarily by direct interaction between EHS's staff and the public. Staff receive and respond to phone calls and office visits by property owners, consultants and contractors and answer questions regarding regulations and the *permitting* process. The EHS contact number is (800) 442-2283.

EHS Website

The EHS website provides links to the *LAMP*, applicable county ordinances, various informational bulletins, brochures on proper *OWTS* maintenance, *permit* application forms, and office locations with contact information. Our website is updated on a regular basis to provide current information relating to *OWTS* and land use issues.

[Land Use and Wastewater – Environmental Health Services \(sbcounty.gov\)](http://sbcounty.gov)

Community Outreach

EHS educates the public and stays current with community concerns. Staff routinely attend and participate in local town hall meetings, community councils, advisory committees, land development meetings, planning commission proceedings, and various health and safety fairs.

Depth to Groundwater

No variance will be granted to reduce the separation to less than five feet from the bottom of the *dispersal system* to *groundwater*. *Seepage pits* will have a separation of no less than 10 feet. At the discretion of the County, the depth to *groundwater* requirement may be reduced to two feet when there is a supplemental treatment unit with disinfection installed. More information regarding these requirements can be found in Chapter 5.

Definitions

Accessory Dwelling Unit (ADU)

An attached or a detached residential dwelling unit, not considered to exceed the allowable density of the *parcel*, which provides complete independent living facilities for one or more persons with permanent provisions for living, sleeping, eating, cooking, and sanitation on the same *parcel* as the single-family or multi-family dwelling is situated. An *ADU* includes an efficiency unit, as defined in §17958.1 of the Health and Safety Code, and a manufactured home, as defined in §18007 of the Health and Safety Code. To be considered detached, the roofs between the primary structure and the accessory structure must be at least ten feet apart.

Alternative Dispersal System (ADS)

Any *OWTS* dispersal other than conventional leach lines or *seepage pits* allowed under conditions specified by EHS. These include *mound systems*, evapotranspiration systems, pressure distribution, subsurface drip dispersal, and hybrid leach lines that are deeper, wider, or shorter than conventional leach lines.

Alternative Treatment System (ATS)

Any *OWTS* that does not meet the criteria of a conventional *OWTS* but is allowed under conditions specified by EHS. These also include ADS.

Basin Plan

A plan which identifies surface and *groundwater* bodies within each region's boundaries, and establishes for each, its respective beneficial uses, and water quality objectives. *Basin plans* are adopted by the *RWQCB* and *SWRCB* and are approved by the Office of Administrative Law.

Bedrock

Solid rock underlying loose deposits such as *soil* or alluvium.

California Environmental Data Exchange Network (CEDEN)

A central location to find and share information about California's water bodies, including streams, lakes, rivers, and coastal oceans.

Cesspool

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* do not have a *septic tank* to pretreat the sewage prior to discharge into the *soil*. *Cesspools* are not permitted in the State of California.

Clay

Term used to describe a *soil* particle, or type of *soil* texture. As a *soil*:

- Particle – *clay* consists of individual rock or mineral particles having diameters of <0.002 millimeters (mm).

- Texture – *clay* is a *soil* material that is comprised of 40%, or more, *clay* particles, not more than 45% *sand*, and not more than 40% *silt* particles using the United States Department of Agriculture (USDA) *soil* classification system.

Cobbles

Rock fragments measuring 76 mm or larger, using the USDA *soil* classification systems.

Designated Maintenance Area (DMA)

Areas of the County that do not have a public sewer system and have been determined by the *RWQCB* to be sensitive to *OWTS* discharge.

Development

The uses for which land shall be utilized for the buildings to be constructed on it, and any alterations or construction projects that will take place. This shall include but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

A “*Development Project*” includes a project involving the issuance of a *permit* for construction or reconstruction, but not a *permit* to operate.

Dispersal System

A type of system for final wastewater treatment and subsurface discharge, which may include but is not limited to, a leach field or *seepage pit*.

Domestic Wastewater

Wastewater with a measured strength less than high-strength wastewater. This 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* does not include wastewater from industrial processes.

Domestic Water Well

A *groundwater* well that provides water for human consumption that is not regulated by the *State Water Resources Control Board*'s Division of Drinking Water (DDW).

Drainage Course

Any creek, ravine, gully, channel, hollow, swale or depression or any unofficial ditch, drain culvert or pipe through or over which *surface water* periodically flows in its natural course.

Effluent

Sewage, water, or other liquid (partially or completely treated, or in its natural state), flowing out of a *septic tank*, *dispersal system*, or other *OWTS/ATS* component.

Electronic Deliverable Format (EDF)

The data standard adopted by the SWRCB for the submittal of *groundwater* quality monitoring data to the State Water Board's internet-accessible database system, Geotracker.

Ephemeral Stream

A stream or part of a stream that flows only in direct response to precipitation; it receives little or no water from springs, melting snow, or other sources; its channel is at all times above the water table.

Equivalent Dwelling Unit (EDU)

A general comparison for the sewage generated from buildings, structures, or other uses. One *EDU* is considered equal to an approximation of the amount of sewage generated by an average single-family residence.

Existing Onsite Wastewater Treatment System

An *OWTS* that has been approved, issued a *permit* and has been operational prior to the *LAMP* adoption date of June 23, 2017.

Expansion Area

An area of a *parcel* that has a percolation rate on file and has been designated for the eventual 100% replacement of the *OWTS dispersal system*.

Failed Onsite Wastewater Treatment System

The *existing OWTS* has reached the end of its functional lifespan or may have experienced a loss of functionality, safety, or structural integrity.

Signs which may indicate a *failed OWTS* include, but are not limited to, surfacing septage, wastewater *effluent* repeatedly backed up into plumbing fixtures, or *effluent* sampling results not meeting reduction minimums.

Failed OWTS typically require *Major Repair* or *Replacement OWTS*.

Fixture Unit

A unit of measure that expresses the hydraulic load imposed by a fixture on the sanitary plumbing installation. Also referred to as the *Drainage Fixture Unit*.

Food Facility

An operation that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption. Microenterprise Home Kitchen Operations (MEHKO) are defined as a *food facility* for the purposes of *OWTS* design review and installation.

Graywater

Untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes.

Grease Interceptor

A passive interceptor with a rate of flow exceeding 50 gallons-per-minute located outside a building and used for separating and collecting grease from wastewater.

Groundwater

Water below the land surface that is at, or above, atmospheric pressure.

High Strength Wastewater

Wastewater, prior to *septic tank* or other form of *OWTS* treatment component, meeting any of the following criteria:

- A 30-day average concentration of Biochemical Oxygen Demand (BOD) greater than 300 milligrams per liter (mg/L),
- Total Suspended Solids (TSS) greater than 330 mg/L, or
- A Fats, Oils, and Grease (FOG) concentration greater than 100mg/L.

Impaired Water Bodies/303(d) List

Surface water bodies, or segments thereof, identified on the Section 303(d) list pursuant to the Federal Clean Water Act, approved by the *SWRCB*, and US EPA.

Intermittent Stream

A stream that flows only when it receives water from rainfall runoff or springs, or from some surface source such as melting snow.

International Association of Plumbing and Mechanical Officials (IAPMO)

An association that assists individual jurisdictions, both in the United States and abroad, to meet their specific needs by coordinating the *development* and adaptation of plumbing, mechanical, swimming pools, and solar energy codes.

Junior Accessory Dwelling Unit (JADU)

A *JADU* must be entirely contained within an existing *EDU* and can be no more than 500 square feet. A *JADU* may only add up to 150 square feet to an existing *EDU* and shall be located on the same *parcel*. Only one *JADU* shall be allowed per *parcel*.

'Like-for-Like' Replacement

The process of replacing a component or part of the *OWTS* with one that is identical to the original in terms of specifications, function, and performance to maintain consistency, compatibility, integrity, and safety of the *OWTS*. Minor and *Major Repairs* may involve *'Like-for-Like' Replacement* and typically do not significantly affect the overall functionality or structure of the *OWTS*. *'Like-for-Like' Replacements* do not change total *OWTS* capacity.

Local Agency

Any subdivision of state government responsible for *permitting*, installation, and regulation of *OWTS* within its jurisdictional boundaries; typically a county, city, or special district.

Local Agency Management Program (LAMP)

A program for the *site* review, design, operation and maintenance of *OWTS*, developed by a *local agency*, and approved by the *RWQCB* as an alternate method to achieve the same policy purpose as that of *OWTS* Policy.

Major Repair

A repair entailing significant corrections to the *OWTS*, *Like-for-Like replacements*, or renovations that substantially impact the functionality, safety, or structural integrity of the *OWTS*. Repairs which fall into this definition are required to be completed within 14 calendar days from date of discovery to protect public health.

Signs which may indicate a *major repair* is needed include, but are not limited to, surfacing septage or wastewater *effluent* repeatedly backed up into plumbing fixtures.

Examples of *major repairs* include, but is not limited to, the *dispersal system* being unable to percolate the designed flow of wastewater associated with the structure served, a *septic tank* compartment baffle failure, *septic tank* structural integrity failure, or any other system failure that results in wastewater exfiltrating, or *groundwater* infiltrating the *OWTS*.

Minor Repair

A repair generally involving small-scale fixes or adjustments that do not significantly affect the overall functionality, safety, or structural integrity of the *OWTS*.

These repairs are typically in response to issues which are easily identifiable and do not include general maintenance such as pumping of the *septic tank*.

Examples of *minor repairs* include, but are not limited to, replacing a gasket, replacing a cracked riser cover, and unclogging a drain within the *EDU*.

Mottling

A *soil* condition that:

- Results from oxidizing or reducing minerals due to *soil* moisture changes from saturated to unsaturated over time,
- 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, and
- May indicate historic seasonal high *groundwater* levels.

Mound System

A type of sewage system that is built above ground level. It is used when the *soil* conditions are not suitable for a conventional septic system, or when the water table is high or close to a body of water. It protects the water supply from contamination by filtering the *effluent* through a layer of *sand* after primary treatment.

Mountain Regions

Areas within the following described boundary: Beginning at the intersection of the boundary line between San Bernardino and Los Angeles Counties and the north line of Section 31 Township 4 North, Range 7 West, San Bernardino Baseline and Meridian, thence generally easterly and southerly along the National Forest boundary to its intersection with the boundary line between San Bernardino and Riverside Counties thence westerly along the County line to the southwest corner of Township 1 South, Range 1 East; thence generally northerly and westerly following the National Forest boundary to the intersection of north boundary of Section 24, Township 1 North, Range 8 West, San Bernardino Baseline and Meridian and the boundary line between San Bernardino and Los Angeles Counties; thence northerly along the County line to the point of beginning

National Sanitation Foundation (NSF) International

A not for profit, non-governmental organization which develops health and safety standards, and performs product certification.

New Development

A proposed tract, *parcel*, industrial, residential, or commercial *development* which has not been granted one or more of the following, on or prior to approval of the *LAMP*:

- Approval, or conditional approval, of a tentative *parcel* or tract map by a *local agency* (i.e., County/City Planning Commission, City Council, Board of Supervisors),
- A conditional use *permit*, approved by a *local agency*, and/or
- Approval, or conditional approval, from the Division of Environmental Health Services (EHS)
- A building *permit* from the Building and Safety Division.

New Onsite Wastewater Treatment Systems

An *OWTS* *permitted* after the *LAMP* adoption date of June 23, 2017.

Notice of Condition

Site-specific document that is recorded on the deed of the property indicating the existence of a required *DMA*, *OWTS*, *SHT* or *ATS*.

Onsite Wastewater Treatment Systems (OWTS)

Individual disposal systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface discharge.

OWTS does not include *graywater* systems pursuant to Health and Safety Code Section 17922.12.

Onsite Wastewater Treatment System Certification

The professional verification by a *Qualified Service Provider* that the OWTS, and its components including *septic tank*, *dispersal systems*, and *ATS* (if applicable) meet current regulatory standards. *OWTS certifications* shall be completed using forms provided by EHS.

Operating Permit

A *permit* issued by EHS authorizing continued use of an OWTS in a particular area or a specific type of OWTS.

Parcel

Any real property described or created by map or deed. *Parcel* shall also refer to a legally defined *parcel*, or contiguous group of *parcels* in single ownership or under single control and considered a unit for purposes of *development*.

Perched Groundwater

Subsurface water that forms a saturated horizon within porous media at an elevation higher than the local or regional *groundwater* table.

Percolation Test

A method to test the absorption rate of the *soil* to determine the type of system design the *parcel* can support.

Perennial Stream

A stream that has continuous flow of *surface water* throughout the year in at least parts of its catchment during seasons of normal rainfall.

Permit

A document issued by a regulatory agency that allows the installation, use, and/or monitoring of an OWTS.

Projected Flows

Wastewater flows into the OWTS determined in accordance with any of the applicable methods for determining average daily flow in the California Plumbing Code.

Public Water System

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 Supply Well

A ground water well serving a *public water system*.

Qualified Professional

An individual licensed, or certified by a State of California agency, to design *OWTS* and practice as a professional for other associated reports, as allowed under their license or registration. *Qualified Professionals* include the following:

- Registered Civil Engineer
- Certified Engineering Geologist
- Registered Environmental Health Specialist (REHS)
- Registered Geologist
- Geotechnical Engineer

Qualified Service Provider

A person with knowledge and competency in *OWTS* design, construction, operation, monitoring and maintaining an *OWTS* in accordance with this *LAMP*. For alternative treatment, the individual must also be certified and/or trained extensively by the manufacturer to install, maintain, service, monitor and repair the specific model/type of *OWTS*.

Recreational Vehicle (RV)

A motor vehicle or trailer that includes living quarters designed for temporary accommodation.

Replacement Onsite Wastewater Treatment System

A new *OWTS* in its entirety installed to replace an existing failed, malfunctioning, or non-conforming *OWTS*.

A *Major Repair* involving the total replacement of a significant portion of the *OWTS* (i.e. *septic tank*, dispersal field, or *ATS*) that is installed to address a failing, malfunctioning, or non-conforming *OWTS*.

If a property undergoes significant expansion or renovation, the existing septic system may no longer have the capacity to accommodate the increased wastewater flow, requiring the installation of a larger or more advanced system.

Regional Water Quality Control Board (RWQCB)

The *SWRCB* has jurisdiction throughout California. There are nine *RWQCB* that exercise rulemaking and regulatory activities by basins. Depending on the *site*-specific location of the *OWTS*, *Regional Water Quality Control Board* reference in this document may refer to the Colorado River Basin *Regional Water Quality Control Board*, the Lahontan *Regional Water Quality Control Board*, or the Santa Ana *Regional Water Quality Control Board*.

Sand

A *soil* particle or type of *soil* texture. As a:

- *Soil* particle – *Sand* consists of individual rock, or mineral particles, having diameters ranging from 0.05 to 2.0 mm.

- *Soil texture – Sand is soil that is comprised of 85% or more sand particles, with the percentage of silt plus one and a half times the percentage of clay particles comprising less than 15%.*

Seepage Pit

A drilled or dug excavation four to six feet in diameter. It is also gravel filled but has a hollow core with a minimum depth below the inlet of 10 feet and receives *effluent* discharge for dispersal from a *septic tank* or *ATS*.

Septic Tank

A watertight, covered, receptacle designed for primary treatment of wastewater and constructed to:

- Receive wastewater discharged from a building,
- Separate settleable and floating solids from liquid,
- Digest organic matter using anaerobic bacterial action,
- Store digested solids, and
- Clarify wastewater for further treatment with final subsurface discharge.

Sewage Holding Tank (SHT)

A watertight, covered receptacle designed to receive and temporarily store the discharge of sewage prior to periodic removal of its contents to an approved permanent disposal *site*. This does not include holding tanks used for the purpose of collecting and reusing *graywater*.

Silt

A *soil* particle or type of *soil* texture. *Silt* is *soil* that is comprised of approximately 80% or more *silt* particles and not more than 12% *clay* particles using the USDA *soil* classification system.

Single Family Dwelling Unit

See *Equivalent Dwelling Unit*

Site

The location of the *OWTS* and/or a reserve dispersal area, capable of disposing 100% of the design flow from all the sources the *OWTS* is intended to serve.

Site Evaluation

An observation of the *percolation test* performed by a *qualified professional* and assessment of the characteristics of the *site*, sufficient to determine its suitability for an *OWTS* that meets the requirements of this *LAMP*.

Soil

The naturally occurring body of porous mineral and organic materials on the land surface, which is composed of:

- Unconsolidated materials, including *sand*, *silt*, and *clay* sized particles.
- Varying amounts of larger fragments, and organic matter.

- Earthen material with particles smaller than 0.08 inches (2mm) in size.

Soil Texture Classes

The United States Department of Agriculture (USDA) has identified twelve (12) *soil texture classes* as follows: *sand*, *loamy sand*, *sandy loam*, *sandy clay loam*, *loam*, *silt loam*, *silt*, *silty clay loam*, *clay*, *clay loam*, *sandy clay* and *silty clay*. Each texture class has a distinctive characteristic(s) which can be estimated in the field by trained personnel.

State Water Resources Control Board (SWRCB)

A five member State Water Board, which develops statewide water protection plans, and establishes water quality standards.

Surface Water

Surface water is any body of water above ground, including streams, rivers, lakes, wetlands, reservoirs, and creeks.

Telemetry

The automatic measurement and wireless transmission of data from remote sources.

Total Coliform

A large collection of different genera of bacteria that are indicators of possible water contamination.

Treated Waste

Waste derived from a portable *SHT* containing chemical additives that could disrupt the natural biological processes essential for the function of *OWTS*.

Waste Discharge Requirement

A *permit* issued for operation and discharge of waste pursuant to California Water Code Section 13260.

Watersheds

Reservoirs which serve as a local source of drinking water supply and require special protections. These areas are outlined in the *basin plans* for the three local *RWQCBs*. Increased setback standards are required for any *OWTS* proposal within 2,500 feet of a *surface water* intake point for public water supplies.

Water Quality Control Plan

Refer to the *Basin Plan* definition.

Water Softener

A device or substance that softens hard water by removing certain minerals.