*Onsite Wastewater Treatment System Scoping Document*

**Project Title**

Policy for Siting, Design, Operation and Management of Onsite Wastewater Treatment Systems

**Contact Person**

Ken Harris
State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95812-0100

## I. Introduction

On-site wastewater treatment systems (OWTS) treat wastewater and discharge effluent. The State Water Board is required to draft and implement a statewide OWTS policy under Assembly Bill 885 (Chapter 781, Statutes of 2000), which was approved by the California State Legislature and signed into law in September 2000 and codified as sections 13290-13291.7, Chapter 4.5, Division 7 of the Water Code.

The proposed project is the adoption and implementation of a proposed statewide OWTS Policy as required by Water Code sections 13290 *et seq*. The proposed policy will be administered by the regional water quality control boards (regional water boards) after incorporation into their water quality control plans (also referred to as basin plans). Local agencies seeking authority to do so would implement the Policy along with the regional water boards, who will be primarily responsible for the implementation and enforcement of the Policy.

## II. OWTS Regulation and Operation in California

Regulatory Setting and the Need for a Statewide Policy

The existing regulatory framework surrounding installation, operation, and maintenance of OWTS is complex and varies at the regional and local levels throughout California. A broad network of federal and state laws provides the State Water Board, regional water boards, California Department of Health Services, and local environmental and public health agencies with the authority to protect beneficial uses of water, including the protection of drinking water and public health, by regulating OWTS discharges and other sources of contaminants that have the potential to cause adverse water quality effects. These laws include the Federal Water Pollution Control Act of 1972 (Clean Water Act), Safe Drinking Water Act of 1974, subsequent amendments to these laws, California's Porter-Cologne Water Quality Control Act of 1969 (Water Code section 13000 *et seq*.), and its subsequent amendments and related state policies.

California has nine regional water boards (Figure 1) that work independently of each other but in cooperation with the environmental and public health agencies of the counties, cities, and, in some cases, special districts that have been created to help regulate or finance OWTS. As further described below, the regional water boards often rely upon these local agencies to help them implement and enforce OWTS-related policies and regulations.

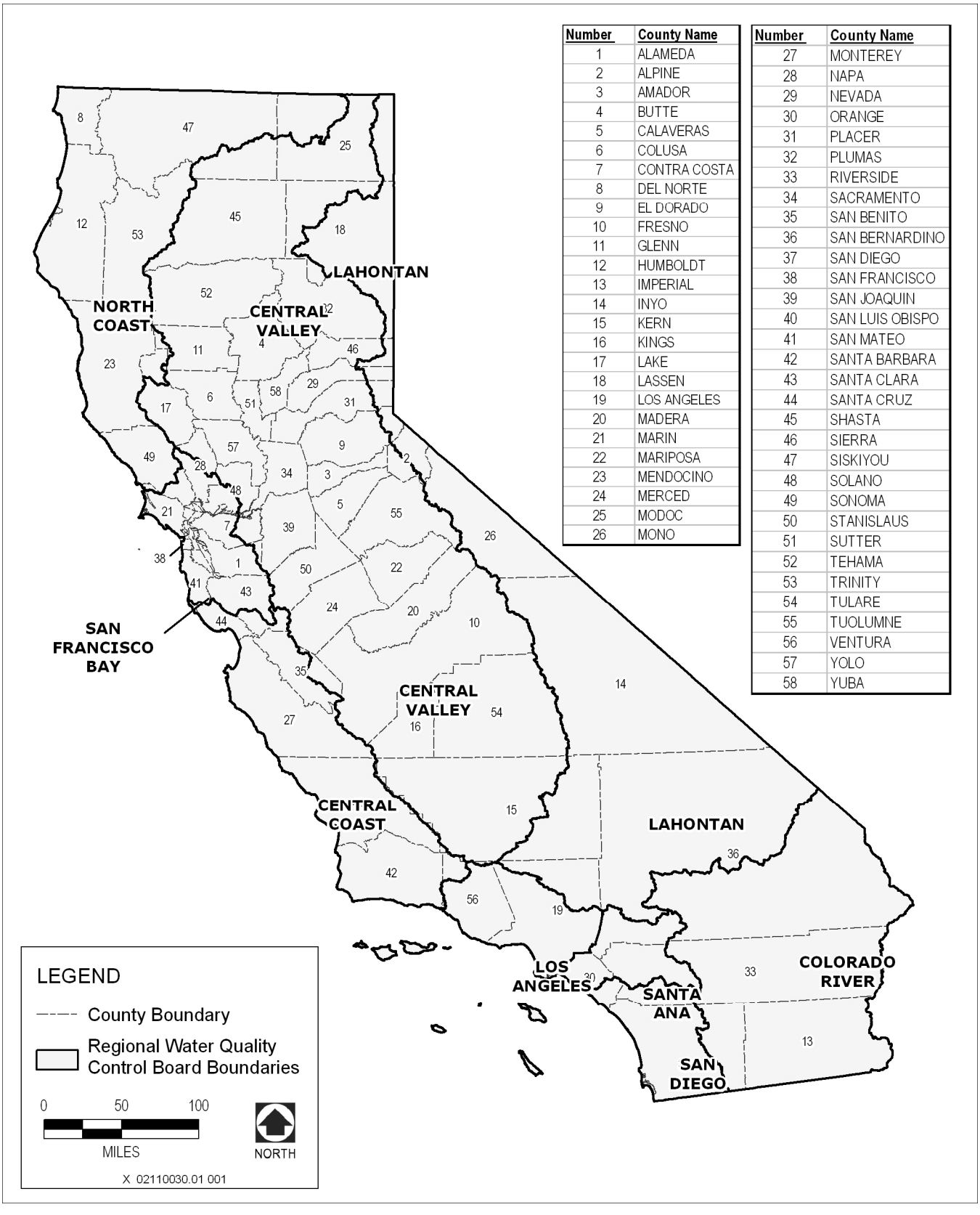
In accordance with section 13260 of the Water Code, anybody proposing to discharge waste that may adversely affect surface waters or groundwater of California must file a report of waste discharge with the local regional water board. OWTS discharge waste that may adversely affect surface waters and groundwater of the state; therefore, these discharges are subject to regulation by the appropriate regional water board. After considering the report of waste discharge, the regional water board may issue waste discharge requirements (WDRs) in accordance with section 13263 of the Water Code. WDRs are intended to protect beneficial uses and applicable water quality objectives of State waters specified in the regions' water quality control plans (basin plans).

Water Code section 13269 allows regional water boards to waive WDRs for specific discharges or types of discharges. In the past, many discharges, including those for OWTS, agricultural, and stormwater discharges, were often subject to unconditional, open-ended regional water board waivers of WDRs and requirements to submit reports of waste discharges. In 2000, amendments to section 13269 essentially terminated pre-existing waivers beginning January 1, 2003. Pre-existing waivers for OWTS were subsequently continued in effect until June 30, 2004, unless terminated by a regional water board. Any waiver for OWTS adopted or renewed thereafter must be consistent with the policy adopted pursuant Water Code section 13290 *et seq*.

In 2003, section 13269 was further amended by the legislature to require that waivers of WDRs include monitoring to support the implementation of the waiver program. These Water Code amendments affect how regional water boards can implement Water Code section 13290 *et seq*. For example, where a local agency seeks and is given authorization to administer implementation of the OWTS policy, the regional water board would waive waste discharge requirements and additionally require monitoring unless it is determined that the discharge does not pose a threat to water quality.

Water Code section 13290 *et seq.* provides specific direction from the legislature to the State Water Board to provide statewide requirements for operation and permitting of certain categories of OWTS, including standards for the protection of beneficial uses of potentially affected water. Typically, regional water boards have adopted requirements for OWTS in their water quality control plans and have entered into formal or informal agreements with local agencies (counties, cities, and special districts) in which the local agency commits to help the regional water board implement basin plan requirements at the local level.

The current practice of regulating OWTS has led to inconsistencies among the various regional water boards and among the numerous local agencies in California's 58 counties. For example, while most counties have some type of minimum performance requirements and siting and design requirements specifically for OWTS, siting criteria, exemption criteria, corrective actions, and repair and replacement requirements vary greatly from one jurisdiction to another. In fact, California is one of only two states that do not have statewide OWTS requirements.




| Number | County Name |
|---|---|
| 1 | ALAMEDA |
| 2 | ALPINE |
| 3 | AMADOR |
| 4 | BUTTE |
| 5 | CALAVERAS |
| 6 | COLUSA |
| 7 | CONTRA COSTA |
| 8 | DEL NORTE |
| 9 | EL DORADO |
| 10 | FRESNO |
| 11 | GLENN |
| 12 | HUMBOLDT |
| 13 | IMPERIAL |
| 14 | INYO |
| 15 | KERN |
| 16 | KINGS |
| 17 | LAKE |
| 18 | LASSEN |
| 19 | LOS ANGELES |
| 20 | MADERA |
| 21 | MARIN |
| 22 | MARIPOSA |
| 23 | MENDOCINO |
| 24 | MERCED |
| 25 | MODOC |
| 26 | MONO |

| Number | County Name |
|---|---|
| 27 | MONTEREY |
| 28 | NAPA |
| 29 | NEVADA |
| 30 | ORANGE |
| 31 | PLACER |
| 32 | PLUMAS |
| 33 | RIVERSIDE |
| 34 | SACRAMENTO |
| 35 | SAN BENITO |
| 36 | SAN BERNARDINO |
| 37 | SAN DIEGO |
| 38 | SAN FRANCISCO |
| 39 | SAN JOAQUIN |
| 40 | SAN LUIS OBISPO |
| 41 | SAN MATEO |
| 42 | SANTA BARBARA |
| 43 | SANTA CLARA |
| 44 | SANTA CRUZ |
| 45 | SHASTA |
| 46 | SIERRA |
| 47 | SISKIYOU |
| 48 | SOLANO |
| 49 | SONOMA |
| 50 | STANISLAUS |
| 51 | SUTTER |
| 52 | TEHAMA |
| 53 | TRINITY |
| 54 | TULARE |
| 55 | TUOLUMNE |
| 56 | VENTURA |
| 57 | YOLO |
| 58 | YUBA |

**Figure 1:** Regional Water Quality Control Board and County Boundaries
Source: SWRCB 2001

The inconsistency in regional and local OWTS requirements and related lack of statewide requirements, along with the public health and environmental issues, are the primary reasons for why AB 885 was introduced by Assemblymember Hannah Beth Jackson in February 1999, passed by the state legislature, and signed into law by Governor Gray Davis in September 2000.

Highlights of Water Code Section 13290 *et seq.*:

Water Code section 13290 *et seq.* requires the State Water Board to develop a statewide OWTS policy in consultation with the California Department of Health Services (DHS), California Conference of Directors of Environmental Health (CCDEH), California Coastal Commission (CCC), counties, cities, and other interested parties.

Water Code section 13290 *et seq.* further requires the policy to include, at a minimum, the seven types of requirements listed below (often referred to as the "seven points"):

1. Minimum operating requirements that may include siting, construction, and performance requirements
2. Requirements for OWTS adjacent to waters listed as impaired under Section 303(d) of the Clean Water Act
3. Requirements authorizing local agency implementation
4. Corrective action requirements
5. Minimum monitoring requirements
6. Exemption criteria
7. Requirements for determining when an existing OWTS is subject to major repair

As previously stated, Water Code section 13290 *et seq.* also requires the regional water boards to incorporate the new statewide policy into their basin plans. Neither the legislation nor the proposed OWTS policy preempt the regional water boards or any local agency from adopting or retaining performance requirements for OWTS that are more protective of public health or the environment than the new statewide policy.

Conventional OWTS and Their Basic Operational Characteristics

OWTS treat wastewater and dispose of effluent for the approximately 1.2 million California households and numerous businesses that are not connected to sewer systems and related centralized municipal wastewater treatment plants (California Wastewater Training and Research Center and U.S. Environmental Protection Agency 2003). Thus, approximately 10% of all California households, or about 3.5 million people, rely upon some type of OWTS to treat and dispose of the wastewater they generate. According to the study cited above, the annual rate of growth in new OWTS installations is approximately 1% or 12,000 systems.

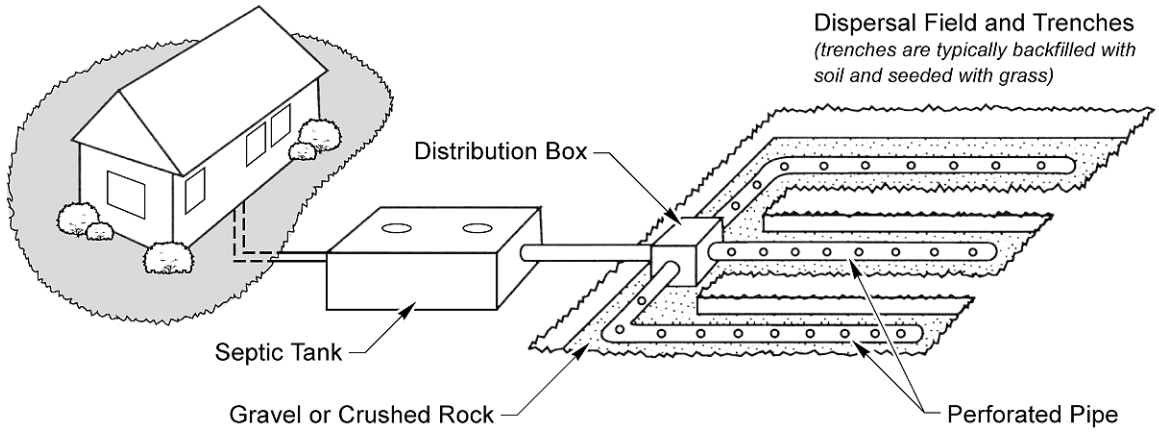
OWTS are defined by the United States Environmental Protection Agency (USEPA) as systems "relying on natural processes and/or mechanical components that are used to collect, treat, and disperse/discharge wastewater from single family dwellings or buildings" (USEPA 2002). Most OWTS are commonly referred to as "septic systems," however, many different types of systems

exist, including conventional systems and a wide range of supplemental treatment systems that are capable of addressing different treatment needs and achieving different treatment levels.

The vast majority of existing OWTS are conventional systems (Figure 2). A conventional OWTS typically consists of a septic tank and a gravity-driven subsurface dispersal system, such as a leach field or a seepage pit. A conventional system may include septic tank effluent pumping where the dispersal field is located at a higher elevation than the associated septic tank. If properly sited (i.e., with suitable soil and groundwater separation conditions), designed, installed, and operated, conventional systems are capable of nearly complete removal of suspended solids, biodegradable organic compounds, and fecal coliform bacteria. However, other pollutants may not be removed to acceptable levels. For example, conventional systems are expected to remove no more than 10–40% of the total nitrogen in domestic wastewater. Other pollutants that may not be removed include pharmaceuticals and other synthetic organic chemicals.

Proper site conditions are an important factor in ensuring the optimal functioning of an OWTS. Key issues that may affect the effectiveness of a treatment system and determine the need for additional treatment are the amount of separation between the bottom of the dispersal field and the level of saturated soil or the groundwater table, and the distance to nearby drinking water wells or surface waters. Private ("domestic") or public drinking water wells may be present on the same property as an OWTS or nearby. Depending on the direction of flow of groundwater, nearby wells may or may not be in the path of the contaminant plume from the OWTS discharge.

If properly sited and under appropriate conditions, unsaturated soil (referred to as the vadose zone) can significantly reduce the levels of human pathogenic organisms (viruses and bacteria) that reach the underlying groundwater table or surface water that is hydrologically connected to the groundwater. The depth and type of unsaturated soil below the dispersal system are important factors in the treatment process. Greater retention time of OWTS wastewater effluent in the vadose zone results in increased removal of pathogens.




Note: This is a schematic diagram that is not to scale

Source: Adapted from EPA 2002

**Figure 2: Conventional System**

Site Conditions and Use of Supplemental Treatment OWTS

Deep and biologically-active soils with relatively long retention times are ideal conditions for the siting of OWTS. However, such conditions are not present in many areas of California. Areas of the state with relatively sandy soils can allow OWTS effluent to move fairly rapidly into local groundwater and other receiving waters with little retention time in the soil underlying dispersal fields. In areas with underlying fractured and granitic bedrock, it is almost impossible to predict accurately the travel time and likely pathway that OWTS effluent will take before it reaches groundwater. In areas with poorly-draining clay soils, OWTS effluent can pool at the surface, thus creating potential public health problems through human contact.

When faced with less-than-ideal hydrogeologic and soil conditions, professional engineers, professional geologists, soil scientists, environmental health specialists, and others who site and design OWTS have an extensive assortment of options to choose from for supplemental treatment along with dispersal, operational, and maintenance options. For example, in a report prepared for the State Water Board by the Department of Civil and Environmental Engineering at the University of California, Davis (UCD), the authors describe numerous types of technologies and OWTS-related management systems, including:

- options for reducing wastewater generation (including conservation),
- containment systems that do not generate waste,
- anoxic and anaerobic systems,
- attached and suspended growth aerobic treatment systems,
- natural treatment systems,
- disinfection systems, and
- monitoring and control systems (modified from Leverenz, Tchobanoglous, and Darby 2002)

The environmental documentation developed for the OWTS Policy will provide more information about conventional and supplemental treatment OWTS and how they operate.

Public Health and Environmental Issues

The primary public health and environmental issues of concern associated with the use of OWTS are (1) direct human exposure to OWTS effluent surfacing above an improperly operating dispersal field; (2) degradation of groundwater quality due to percolating OWTS effluent beneath the dispersal field; (3) degradation of surface water by groundwater affected by OWTS effluent; and (4) human exposure to affected groundwater or surface water, either through direct ingestion or through dermal contact.

1) Direct Human Exposure to Surfacing Effluent

Most “failures” of OWTS are reported as surfacing effluent above the dispersal field, allowing for the possibility of direct human contact with minimally treated sewage. The causes of such failures may be due to clogging of the dispersal system or the inability of soils in the OWTS dispersal field to percolate effluent downward. To avoid surfacing effluent, OWTS should be

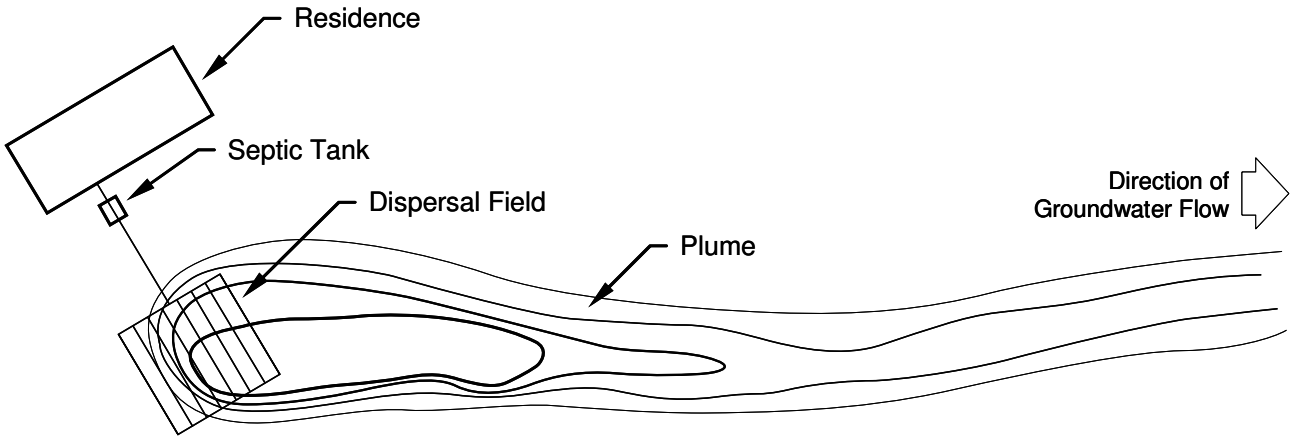
designed and sited to (a) prevent solids from passing from the septic tank to the dispersal field and (b) ensure that effluent application rates and soil conditions in the dispersal field will allow percolation.

2) Groundwater Degradation

In most hydrogeologic settings in California, percolating effluent from OWTS will reach groundwater. Once reaching the groundwater table, the OWTS effluent will move with groundwater flow as a contaminant plume. In general, contaminant plumes tend to be long, narrow, definable and exhibit little dispersion (USEPA 2002; Figure 3). Groundwater within the contaminant plume will likely exceed water quality objectives for nitrate from conventional OWTS effluent and contain other dissolved contaminants or pathogens (viruses and/or bacteria) not removed by the OWTS.

3) Surface Water Degradation

OWTS effluent groundwater plumes and surfacing effluent from OWTS dispersal systems reaching adjacent surface water bodies (streams, lakes, marine waters) can cause pollution and endanger public health. The most common water quality objectives exceeded in surface waters due to OWTS discharges are for nitrogen and bacteria. Public health concerns are commonly associated with recreational contact of surface waters impaired by OWTS discharges.




Source: Adapted from USEPA 2002

**Figure 3: Example of OWTS Effluent Plume Movement**

4) Human Exposure to OWTS-Degraded Groundwater

Typical local codes specify a minimum 100 foot separation between an OWTS and a domestic drinking water well. OWTS effluent plumes in groundwater tend to remain relatively intact over long distances (for example, as reported in USEPA 2002, a 1995 study by Robertson and Cherry determined that such plumes can remain narrow and concentrated for more than 300 feet). In a fractured rock environment, OWTS effluent may travel much longer distances in rock fractures without dilution. Therefore, domestic water supply wells are vulnerable to contamination from OWTS effluent plumes. The degree of possible impact is dependent on a variety of factors, including local hydrogeology and whether hydrogeologic barriers (e.g., clay or hardpan) exist

that separate shallow groundwater from the water-bearing zone from which the domestic well draws water; the degree to which the domestic well casing reaches and is sealed into a hydrogeologic barrier that prevents or impedes the downward migration of shallow groundwater; and the length and adequacy of the sanitary seal (if one exists) on the domestic well. Note that in fractured rock, hydrogeologic barriers do not exist and sanitary seals may be less protective than a groundwater table environment.

Table 1 summarizes the major types of pollutants found in OWTS discharges and briefly describes the primary reasons why pollutants such as pathogens and nitrogen are a concern.

Economic and Fiscal Issues

New OWTS are commonly financed as part of the construction costs of a new home or business. Conventional OWTS are the most common and generally least expensive systems to construct; supplemental treatment systems are becoming more commonplace in some areas of the state but also tend to be more expensive. The cost of installing supplemental treatment OWTS has been at least twice that of conventional OWTS. For example, the design, siting, and installation of conventional OWTS for residential construction projects typically range from $8,000 to $15,000, while supplemental treatment OWTS can cost $20,000–$30,000 or more depending on site conditions and which type of system is installed (Treinen, Bradley, and Lescure, personal communications, 2004).

Homeowners and business owners incur costs when they have to replace or repair an existing system. Lower income residents may have difficulty covering expensive repair or replacement costs.

AB 885 says that it is the intent of the California legislature to provide private property owners with financial assistance for OWTS-related costs under certain situations and encourages the use of the State Revolving Fund Loan Program to address this concern.

## III. Project Objectives

Based on the requirements of Water Code section 13290 *et seq.* and the intent of the state legislature in adopting the legislation, and in the context of other state laws relating to wastewater discharge and water quality, the State Water Board has identified the following objectives for the proposed project:

1. As required by Water Code section 13290 *et seq.*, adopt a statewide policy for OWTS that is consistent with other provisions of the Porter-Cologne Water Quality Control Act and related state water quality control plans and policies adopted by the State Water Board.
2. Help ensure that beneficial uses of the State's waters are protected from OWTS effluent discharges by meeting water quality objectives.
3. Establish an effective implementation process that considers economic costs, practical considerations for regional and local implementation, and technological capabilities existing at the time of implementation.

**Table 1**
**Typical Wastewater Pollutants of Concern**

| Pollutant | Reason for Concern |
|---|---|
| Total suspended solids (TSS) and turbidity (NTU) | In surface waters affected by surfacing OWTS effluent, suspended solids can result in the development of sludge deposits that smother benthic macroinvertebrates and fish eggs and can contribute to benthic enrichment, toxicity, and sediment oxygen demand. Solids also harbor bacteria (see "pathogens" below). Excessive turbidity resulting from solids that remain suspended can block sunlight, harm aquatic life (e.g., by blocking sunlight needed by plants), and lower the ability of aquatic plants to increase dissolved oxygen in the water column. In drinking water, turbidity is aesthetically displeasing and interferes with disinfection. |
| Biological oxygen demand (BOD) | Biological stabilization of organics in the water column can deplete dissolved oxygen in surface waters, creating anoxic conditions harmful to aquatic life. Oxygen-reducing conditions in groundwater and surface waters can also result in taste and odor problems in drinking water. |
| Pathogens | Parasites, bacteria, and viruses can cause communicable diseases through direct and indirect body contact or ingestion of contaminated water or shellfish. A particular threat occurs when OWTS effluent pools on the ground surface or migrates to recreational waters. Transport distances of some pathogens (e.g., viruses and bacteria) in groundwater or surface waters can be significant. |
| Nitrogen | Nitrogen is an aquatic plant nutrient that can contribute to eutrophication and dissolved oxygen loss in surface waters, especially in lakes, estuaries, and coastal embayments. Algae and aquatic weeds can contribute trihalomethane (THM) precursors to the water column that may generate carcinogenic THMs in chlorinated drinking water. Excessive nitrate-nitrogen in drinking water can cause methemoglobinemia in infants and pregnancy complications for women. Livestock can suffer health impacts from drinking water high in nitrogen. |
| Phosphorus | Phosphorus is an aquatic plant nutrient that can contribute to eutrophication of inland and coastal surface waters and reduction of dissolved oxygen. |
| Toxic organic compounds | A variety of regulated organic compounds exist that cause direct toxicity to humans and aquatic life via skin contact and ingestion. Organic compounds present in household chemicals and cleaning agents can interfere with certain biological processes in alternative OWTS. They can be persistent in groundwater and contaminate downgradient sources of drinking water. Some organic compounds accumulate and concentrate in ecosystem food chains. |
| Heavy metals | Heavy metals like lead and mercury in drinking water cause human health problems. In the aquatic ecosystem, they are also toxic to aquatic life and accumulate in fish and shellfish that might be consumed by humans. |
| Dissolved inorganic compounds | Chloride and sulfide cause taste and odor problems in drinking water. Boron, sodium, chlorides, sulfate, and other solutes may limit treated wastewater reuse options (e.g., irrigation). Sodium and to a lesser extent potassium can be deleterious to soil structure and OWTS dispersal system performance. |
| Endocrine disruptor compounds (EDCs) | The presence of common hormones, drugs, and chemicals contained in personal care products (e.g., shampoo, cleaning products and pharmaceuticals) in wastewater and receiving water bodies is an emerging water quality and public health issue. Endocrine disruptor compounds (EDCs) are substances that alter endocrine system function and consequently cause adverse health effects to organisms or their progeny. Only recently has it been recognized that EDCs are present in water bodies of the U.S. at a high frequency; however, measured concentrations have been low and usually below drinking water standards for compounds having such standards. Specific studies have found EDCs in sufficient quantity that they could potentially cause endocrine disruption in some fish. The extent of human health risks and dose responses to EDCs in concentrations at the low levels found in the environment are still unknown. |

Source: Adapted from USEPA 2002 and Tchobanoglous and Burton 1991.

## IV. Project Description

Project Background

The State Water Resources Control Board (State Water Board) is initiating the development of a new water quality control policy (Policy) to address onsite wastewater treatment systems (OWTS) in California. OWTS are wastewater treatment and disposal systems that include individual disposal systems and community collection and disposal systems that use subsurface disposal. The most prevalent OWTS are commonly referred to as "septic systems" and consists of a septic tank and subsurface leach field. The State Water Board is developing the Policy in accordance with its policy writing authority (Water Code section 13140) to comply with the following statutes.

Water Code section 13291, subdivision (a), requires the State Water Board to adopt standards for all OWTS that (1) are constructed or replaced, (2) are subject to a major repair, (3) pool or discharge waste to the surface of the ground, or (4) have affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other public nuisance condition. Water Code section 13291, subdivision (b), requires that the OWTS standards include (1) minimum operating requirements, (2) requirements for OWTS that are adjacent to polluted surface waters, (3) local agency implementation, (4) corrective action requirements, (5) monitoring requirements, (6) exemption criteria, and (7) requirements for determining whether an OWTS needs a major repair. Water Code section 13291, subdivision (c), authorizes local agencies to continue to implement other laws related to OWTS. Finally, Water Code section 13291, subdivision (d), makes it clear that local agencies and Regional Water Quality Control Boards (Regional Water Boards) may retain or adopt requirements for OWTS that are more protective of human health or the environment.

In addition to Water Code section 13291, in accordance with Water Code sections 13260, 13263, and 13269, the State Water Board and the Regional Water Boards have a general obligation to address significant discharges of waste that may affect surface water or groundwater quality by issuing waste discharge requirements or waivers of waste discharge requirements. This Policy is also intended to satisfy this general obligation for discharges from the majority of OWTS.

As required by the Water Code section 13291, subdivision (a), the implementation of the new statewide OWTS policy will commence six months after the Policy is adopted by the State Water Board. The current State Water Board schedule assumes that this policy will be adopted by the spring of 2012. Thereafter, the policy is expected to be implemented in stages beginning in the fall of 2012.

In some cases, the Policy may result in new requirements. In other cases, elements of the proposed policy may already be in use at the regional or local level, but may vary around the state. The environmental documentation developed for the proposed policy will define the existing regulatory setting at the regional and local levels in more detail and will provide examples of representative policy from various areas for comparative purposes.

General Project Framework

The proposed OWTS Policy addresses the majority of OWTS within the State. The OWTS Policy relies on implementation primarily by local agencies, with support by the Regional Water Boards. The OWTS Policy contains a risk-based, tiered approach for OWTS throughout the state. Currently there are four regulatory tiers proposed as follows: Tier Zero is for most existing OWTS, Tier One is for new or replaced low-risk OWTS, Tier Two is for new or replaced OWTS covered by a local agency management plan, and Tier Three is for OWTS that need corrective action. The four tiers will be implemented by general conditional waivers of waste discharge requirements contained in the Policy that automatically cover all OWTS within each tier. New and replaced OWTS receiving large discharge volumes and/or high-strength wastes[1] will be covered by other waivers of waste discharge requirements or waste discharge requirements.

## Tier Zero (Exempt Existing OWTS)

*Which OWTS are eligible for Tier Zero?*

Existing[2] OWTS are automatically included in Tier Zero as long as a Regional Water Board or local agency has not determined that:

(a) the OWTS is adjacent[3] to a surface water that is polluted due to pathogens or nitrogen compounds,

(b) the OWTS has affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other public nuisance condition, or

(c) the OWTS must undergo a major repair to address surfacing effluent or the failure of a septic tank's structural integrity.

*What requirements apply to OWTS in Tier Zero?*

OWTS in Tier Zero are exempt from any requirements under this policy, unless a local agency or Regional Water Board adopts more stringent requirements. If a local agency has previously imposed requirements as conditions of permitting an OWTS, those requirements are not superseded by this policy and must continue to be met.

[1] OWTS receiving large discharge volumes and/or high-strength wastes are those OWTS that are designed to treat a large quantity of domestic-strength wastewater and so are much larger than a typical residential installation, or an OWTS that receives high-strength wastewater from an industrial or commercial facility. These types of OWTS are not eligible for the general waivers of waste discharge contained in the Policy, and already are, or will be, covered by the Regional Water Boards under general or individual waivers of waste discharge requirements or general or individual waste discharge requirements.

[2] The term "existing" means an OWTS for which a construction permit has been issued prior to the date when provisions of the Policy become effective for all new construction permits.

[3] The term "adjacent" means that the discharge from the OWTS are in close proximity to an officially listed surface water that is polluted (also known as "impaired") by pathogens or nitrogen compounds, such that discharges from the OWTS are either presumed to, or on the basis of a site-specific preliminary assessment have been determined to, contribute to the pathogen or nitrogen pollution of the surface water.

## Tier One (Low Risk OWTS)

*Which OWTS are eligible for Tier One?*
New[4] and replaced[5] OWTS are automatically included in Tier One as long as they meet the following eligibility criteria:

(I) a Regional Water Board or local agency has not determined that:
- (a) the OWTS is adjacent to a surface water that is polluted due to pathogens or nitrogen compounds,
- (b) the OWTS has affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other nuisance condition, or
- (c) the OWTS must undergo a major repair to address surfacing effluent or the failure of a septic tank's structural integrity, and

(II) a qualified professional determines that specified low risk site and design standards are met, including:
- (a) percolation must be adequate and not too fast or too slow,
- (b) horizontal setbacks must comply with the Uniform Plumbing Code
- (c) ground slope must not be excessive,
- (d) the OWTS is properly designed for the specific location and wastewater characteristics,
- (e) native soil depth to groundwater is adequate to provide protection,
- (f) the dispersal system has enough soil cover to protect against surfacing effluent,
- (g) specified application rates are not exceeded, and
- (h) the septic tank meets specified design and performance standards.

*What requirements apply to OWTS in Tier One?*
OWTS in Tier One must comply with the following requirements:
(1) wastewater effluent must not reach the ground surface,
(2) the OWTS must be maintained in operating condition,
(3) the OWTS must not cause or contribute to an exceedance of water quality objectives in surface water or a groundwater well, and
(4) the OWTS must comply with any more stringent requirements adopted by a local agency or Regional Water Board.

[4] The term "new" means any new OWTS for which a construction permit is issued after the date when the provisions of this Policy become effective.
[5] The term "replaced" means any existing OWTS for which the treatment capacity is expanded or any portion of the dispersal system is replaced or added to, after the date when the provisions of this Policy become effective.

## Tier Two (Local Agency OWTS Management Program)

*Which OWTS are eligible for Tier Two?*
New and replaced OWTS are automatically included in Tier Two as long as they meet the following eligibility criteria:

(I) a Regional Water Board or local agency has not determined that:
- (a) the OWTS is adjacent to a surface water that is polluted due to pathogens or nitrogen compounds,
- (b) the OWTS has affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other nuisance condition, or
- (c) the OWTS must undergo a major repair to address surfacing effluent or the failure of a septic tank's structural integrity, and

(II) a qualified professional determines that the OWTS siting and design
- (a) does not meet the criteria for the Tier One waiver, and
- (b) meets the requirements of an approved local agency OWTS management program.[6]

*What requirements apply to OWTS in Tier Two?*
OWTS in Tier Two must comply with the following requirements:
(1) wastewater effluent must not reach the ground surface,
(2) the OWTS must be maintained in operating condition,
(3) the OWTS must not cause or contribute to an exceedance of water quality objectives in surface water or a groundwater well,
(4) the OWTS must comply with the Local OWTS Program requirements, and
(5) the OWTS must comply with any more stringent requirements adopted by a local agency or Regional Water Board.

[6] An "approved local agency OWTS management program" means an OWTS management program that is administered by a local agency and has been approved by a Regional Water Board or the State Water Board. A local agency OWTS management program may apply different siting and design requirements than Tier One, but is intended to provide the same level of water quality and human health protection afforded by the Tier One siting and design criteria. The local agency will be responsible for certain recordkeeping, monitoring, and reporting under the local agency OWTS management program.

**Tier Three (OWTS Corrective Action)**

*Which OWTS are included in Tier Three?*
OWTS are automatically included in Tier Three if a Regional Water Board or local agency has determined that:

(a) the OWTS is adjacent to a surface water that is polluted due to pathogens or nitrogen compounds,
(b) the OWTS has affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other nuisance condition, or
(c) the OWTS is subject to a major repair to address surfacing effluent or the failure of a septic tank's structural integrity.

*What requirements apply to OWTS in Tier Three?*
OWTS in Tier Three must comply with the following requirements:

(1) wastewater effluent must not reach the ground surface,
(2) the OWTS must be repaired or modified so that it functions in a manner that does not cause pollution or nuisance, and then maintained in operating condition,
(3) the OWTS must not cause or contribute to an exceedance of water quality objectives in surface water or a groundwater well, and
(4) the OWTS must comply with any more stringent local agency or Regional Water Board requirements.
(5) if the State Water Board or a Regional Water Board determines (either presumptively based on the Policy, or on the basis of a watershed-specific preliminary assessment) that the OWTS is contributing pathogens or nitrogen compounds to the polluted surface water,
   (a) the OWTS will be required to comply with the terms of any Total Maximum Daily Load or other watershed-specific requirements adopted by a Regional Water Board, or
   (b) within a specified time schedule, either connect to a sewage treatment plant collection system if available, or add advanced treatment to the OWTS to reduce the amount of pathogens or nitrogen compounds being discharged by the OWTS.

## V. Environmental Setting

California contains a wide variety of bioregions, from desert environments below sea level, to coastal areas, to alpine areas of 14,000 feet or more in elevation. The diversity of geography colliding with temperature and moisture leads to a significant diversity of biological resources. California has the highest total number of species and the highest number of endemic species within its borders of any state. California also has the highest number of rare species (species typically listed under the federal ESA or the California ESA), and about one-third of those species are at risk, meaning these species have the potential for local or global extinction.

California is divided geographically into bioregions, which are classified by relatively large areas of land or water, which contain characteristic, geographically distinct assemblages of natural communities and species. The biodiversity of flora, fauna, and ecosystems that characterize a bioregion tend to be distinct from that of other bioregions. California is divided into 10

bioregions: Modoc, Klamath/North Coast, Sacramento Valley, Bay /Delta, Sierra, San Joaquin Valley, Central Coast, Mojave Desert, South Coast, and Colorado Desert (Figure 4).


Source: FRAP

Figure 4: California Bioregions

### *Modoc Bioregion*

This bioregion is also referred to as the Modoc Plateau and the Southern Cascade regions. The Modoc bioregion extends across California's northeast corner from Oregon to Nevada, and south to the southern border of Lassen County. The physical geography of the region includes flats, basins, valleys, lava flows, and mountains. High desert and forests are the dominant vegetation communities. Several major lakes (Goose, Eagle, and Tule) and Mount Lassen (10,450 feet in elevation) are dominant physical features. The bioregion shares many similarities with the Great Basin region that forms much of its eastern boundary. The area's large lakes provide critical habitat for migratory birds (USGS 2003).

Counties within this bioregion include all or portions of Plumas, Siskiyou, Butte, Tehama, Shasta, Lassen, and Modoc, which support relatively sparse population bases including the municipalities of Susanville and Alturas. This bioregion comprises the northern quarter of the Lahontan Hydrologic Region.

### *Klamath/North Coast Bioregion*

The Klamath/North Coast bioregion extends roughly one-quarter of the way down the 1,100-mile coast and east across the Coastal Ranges and into the Cascades. The region extends from the Oregon border to Point Arena and from the continental shelf to the Central Valley, including the looming Mount Shasta (14,160 feet tall) near the eastern boundary. The region is one of rugged relief, with severely sheared, faulted, and folded mountains forming parallel ridges and river valleys. It also has coastal terraces, lagoons, and populated floodplains, as well as off-shore islands, estuaries, and subtidal deep-water habitats (USGS 2003). The California bioregional classification system does not include offshore and tidal areas. The marine portion of this bioregion is within two categories of California's marine and ocean classification system: Southern Oregonian Province and Central Ocean (CERES 2005). Numerous rivers in this region offer spawning grounds for anadromous fish (e.g., salmon), including the Eel, Trinity, Klamath, Russian, Smith, Salmon, Scott, Mad, and Mattole Rivers. Large lakes include Clear Lake, Whiskeytown Lake, Clair Engle Lake, and the western part of Shasta Lake.

The region includes all or portions of 10 counties: Del Norte, most of Siskiyou, Humboldt, Trinity, Mendocino, Lake, and the northwestern portions of Shasta, Tehama, Colusa, and Glenn. The region's rugged and remote nature supports low population numbers. The largest cities in the region are Redding at the northern end of the Central Valley and Eureka in Arcata Bay. This bioregion encompasses all of the North Coast Hydrologic Region.

### *Sacramento Valley Bioregion*

This bioregion makes up the northern portion of California's Great Valley, extending south roughly from Redding in the north to the northern edge of the Sacramento–San Joaquin River Delta (Delta) at the confluence of the Sacramento and American Rivers. The eastern boundary spans the northern third of the Sierra Nevada foothills. The landscape is relatively flat, consisting of basins, plains, terraces, alluvial fans, and scattered hills or buttes.

Counties incorporated in this populated bioregion are Sutter, most of Sacramento, and Yolo and portions of Butte, Colusa, Glenn, Placer, Shasta, Tehama, and Yuba. Sacramento is the

bioregion's largest city with other large cities including Redding, Chico, Davis, West Sacramento, and Roseville, making it the fourth most populous of the 10 bioregions. This bioregion covers a fraction of the Central Valley Hydrologic Region.

### *Bay/Delta Bioregion*

The Bay/Delta bioregion extends from the Pacific Ocean to the Sacramento Valley and San Joaquin Valley bioregions to the northeast and southeast, and a short stretch of the eastern boundary joins the Sierra bioregion at Amador and Calaveras Counties. The bioregion is bounded by the Klamath/North Coast bioregion on the north and the Central Coast bioregion to the south (CERES 2005). The marine and ocean areas are categorized as the Oceanic bioregion and the northern portion of the Central Ocean bioregion. These bioregions include two-thirds of California's coast, extending down to Point Conception north of Santa Barbara. The Bay/Delta bioregion is one of the most populous, encompassing the San Francisco Bay Area and the Delta.

The bioregion fans out from San Francisco Bay in a jagged semi-circle that takes in all or part of 12 counties: Marin, Contra Costa, Santa Clara, Alameda, Solano, San Mateo, San Francisco, Sonoma, Napa, San Joaquin, and parts of Sacramento and Yolo. Major cities include San Francisco, Santa Rosa, Oakland, Berkeley, Vallejo, Concord, and San Jose. Though of moderate size, the Bay/Delta bioregion is the second most populous bioregion. This bioregion contains portions of the San Francisco Bay and Central Valley Hydrologic Regions.

### *Sierra Bioregion*

The Sierra bioregion is named for the Sierra Nevada mountain range that is approximately 380 miles long and extends from the Feather River in the north to Tejon Pass in the Tehachapi Mountains to the south. The bioregion extends along California's eastern boundary and is largely contiguous with Nevada. It is bounded on the west by the Sacramento Valley and San Joaquin bioregions. Included in the region are the headwaters of 24 river basins extending to the foothills on the west side and the base of the Sierra Nevada escarpment on the east side (USGS 2003). These watersheds generate much of California's water supply provided by runoff from the Sierra snowpack.

Eighteen counties, or their eastern portions, make up the Sierra bioregion: Alpine, Amador, Butte, Calaveras, El Dorado, Fresno, Inyo, Kern, Madera, Mariposa, Mono, Nevada, Placer, Plumas, Sierra, Tulare, Tuolumne, and Yuba. The larger cities include Truckee, Placerville, Quincy, Auburn, South Lake Tahoe, and Bishop (CERES 2005). This bioregion encompasses portions of Lahontan, Central Valley, and Mojave Hydrologic Regions.

### *San Joaquin Valley Bioregion*

The San Joaquin Valley bioregion is bordered by the Coast Ranges on the west and the southern two-thirds of the Sierra bioregion on the east. This bioregion is in the heart of California and is the state's top agricultural region, producing fruits and vegetables in its fertile soil.

Eight counties are found within the bioregion: Kings, most of Fresno, Kern, Merced, and Stanislaus and portions of Madera, San Luis Obispo, and Tulare. This growing bioregion, the

third most populous, still contributes to the state's top 10 counties in farm production value (CERES 2005). Large communities include Fresno, Merced, Modesto, and Bakersfield.

### *Central Coast Bioregion*

The Central California Coast bioregion includes marine, freshwater, and terrestrial resources. The bioregion extends some 300 miles from just north of the city of Santa Cruz to just south of the city of Santa Barbara, and inland to the floor of the San Joaquin Valley. The edge of the continental shelf forms the western boundary; on the east the region borders the Central Valley bioregion. The marine and ocean areas are categorized as the Central Ocean bioregion and the Southern California Bight. These marine regions extend from Cape Mendocino in the north to Point Conception in the south (CERES 2005).

The bioregion encompasses the counties of Santa Cruz, Monterey, San Benito, Santa Barbara, and portions of Los Angeles, San Luis Obispo, Fresno, Merced, Stanislaus, and Ventura. Large cities include Monterey, San Luis Obispo, and Santa Barbara. The bioregion also encompasses all of the Central Coast and Los Angeles Hydrographic Regions.

### *Mojave Desert Bioregion*

The Mojave Desert is located in southern California, southern Nevada, northeastern Arizona, and southwestern Utah. In California, the bioregion comprises the southeastern portion of the state, roughly east of the Sierra bioregion to the Transverse Ranges in the west, where this region abuts the Colorado Desert near Twenty Nine Palms. The geography is defined by widely separated mountain ranges and broad desert plains, and ranges in elevation from 280 feet below sea level in Death Valley National Park to over 11,000 feet on Telescope Peak. Much of the region is at elevations between 2,000 and 3,000 feet.

Seven counties make up the Mojave bioregion: nearly all of San Bernardino, most of Inyo, the southeastern tips of Mono and Tulare, the eastern end of Kern, the northeastern desert area of Los Angeles, and a piece of northern-central Riverside County. The largest cities are Palmdale, Victorville, Ridgecrest, and Barstow (CERES 2005). The Mojave Desert Bioregion is within the southern portion of the Lahontan Hydrographic Region.

### *Colorado Desert Bioregion*

The Colorado Desert bioregion is the western extension of the Sonoran Desert found primarily in Arizona and Mexico. The region occupies the southeastern area of California to the border with Arizona and Mexico. It includes the Imperial Valley and Colorado River and abuts the South Coast bioregion within the Peninsular Ranges. Elevation varies from 230 feet below sea level at the Salton Sea to over 8,000 feet in the Peninsular Ranges, but averages around 1,000 feet. The landform is typified by alluvial fans, bajadas, playas, dunes, desert plains and steep sparsely vegetated mountains. Average precipitation is around 4 inches per year (USGS 2003).

This sparsely populated bioregion encompasses all of Imperial County, the southeastern portion of Riverside County, the eastern end of San Bernardino County, and the eastern portion of San Diego County. Its most prominent cities are Palm Springs, Rancho Mirage, and El Centro (CERES 2005). This bioregion is completely within the Colorado River Hydrographic Region.

### *South Coast Bioregion*

This bioregion encompasses terrestrial and marine resources from Point Conception on the north to the border with Mexico (USGS 2003). It extends from the outer edge of the continental shelf to the base of the Transverse and Peninsular Ranges. This bioregion is comprised of off-coast islands, narrow mountain ranges, broad fault blocks, alluvial lowlands, and coastal terraces. Elevation ranges from sea level to over 11,400 feet (San Gorgonio Mountain). The aquatic resources include subtidal and intertidal marine and deep water habitats (USGS 2003). The California classification system does not include offshore and tidal areas; however, this region is defined within the California ocean system as the Southern California Bight (CERES 2005).

Counties included in this region are Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. This region is highly populated and continues to grow at a high rate (USGS 2003). This bioregion spans San Diego, Santa Ana and Los Angeles Hydrographic Regions.

## VI. Environmental Impacts

The environmental factors checked below potentially could be affected by this project. See the checklist on the following pages for more details.

| | | |
|---|---|---|
| ☐ Aesthetics | ☐ Agriculture and Forestry Resources | ☐ Air Quality |
| ☑ Biological Resources | ☐ Cultural Resources | ☐ Geology/Soils |
| ☐ Greenhouse Gas Emissions | ☑ Hazards & Hazardous Materials | ☑ Hydrology/Water Quality |
| ☐ Land Use/Planning | ☐ Mineral Resources | ☐ Noise |
| ☐ Population/Housing | ☐ Public Services | ☐ Recreation |
| ☐ Transportation/Traffic | ☑ Utilities/Service Systems | ☑ Mandatory Findings of Significance |

1. AESTHETICS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☑ | ☐ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☑ | ☐ |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | ☐ | ☐ | ☑ | ☐ |
| d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☐ | ☑ |

**Discussion**

***a) Would the project have a substantial adverse effect on a scenic vista?***

**Less-than-Significant Impact.** The proposed project could cause a gradual shift toward the use of more supplemental treatment onsite wastewater treatment systems (OWTS) or community collection systems instead of conventional systems. Supplemental treatment OWTS or community collection systems could be installed in a variety of settings in many areas of California, including scenic areas. Most elements of conventional OWTS are located underground. This is also true for most elements of supplemental treatment systems. While some OWTS have above-grade components, these elements have a relatively low profile (generally consisting of aboveground piping, tanks, or mounds of soil no more than a few feet high). These elements are also small relative to the residences or commercial establishments that they accompany and are typically covered with soil and vegetation following a relatively short construction period.

Furthermore, installation of new OWTS is primarily associated with new building permits for residences and small businesses or replacement of failing systems. If these were located in scenic areas, they would be associated with other permitted structures. Siting criteria of the local authority would continue to help establish appropriate locations for new structures or modifications to existing structures, including the installation of treatment systems, and would address, on a site-specific basis, the potential for systems to affect designated scenic vistas or resources.

The impact of the proposed project on scenic vistas would be less than significant.

***b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?***

**Less-than-Significant Impact.** See response to item (a) above.

***c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?***

**Less-than-Significant Impact**. See response to item (a) above.

***d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

**No Impact.** Permanent sources of external lighting are not a feature of OWTS and operation of OWTS would not generate new sources of light or glare. Thus, the proposed project would not create a new source of light and glare.

2. AGRICULTURAL AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental impacts, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping & Monitoring Program of the California Resources Agency, to non-agricultural uses? | ☐ | ☐ | ☑ | ☐ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☑ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)? | ☐ | ☐ | ☐ | ☑ |

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☑ | ☐ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☑ | ☐ |

## Discussion

***a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?***

**Less-than-Significant Impact.** Installation of more supplemental treatment and community collection OWTS could occur on a wide variety of soil types throughout the state, including areas that could be categorized under the Farmland Mapping and Monitoring Program as Farmland of Statewide Importance. However, the proposed project would not alter the number of OWTS that would be placed on farmland, nor would it meaningfully, if at all, alter the amount of farmland converted for use to OWTS-related uses. The potential impacts of the proposed project on such farmland are considered less than significant.

***b) Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?***

**No Impact.** Implementation of the proposed policy would not affect zoning designations established by local land use jurisdictions. The proposed policy does not address the types of land uses for which OWTS are appropriate; rather, they establish consistent standards for the functioning (i.e., construction, operation, and maintenance) of treatment systems in whatever locations the lead agencies or regional water board chooses to approve them. Under existing conditions, most jurisdictions allow OWTS in conjunction with residences in agricultural areas, including properties with Williamson Act contracts; this situation would not change under the proposed statewide OWTS policy. The project would have no impact on agricultural zoning or Williamson Act contracts.

***c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?***

**No Impact.** Implementation of the proposed policy would not affect zoning designations established by local land use jurisdictions. The proposed policy does not address the types of land uses for which OWTS are appropriate; rather, they establish consistent standards for the functioning (i.e., construction, operation, and maintenance) of treatment systems in whatever locations the lead agencies or regional water board chooses to approve them. Under existing conditions, most jurisdictions allow OWTS in conjunction with residences in forested areas; this situation would not change under the proposed statewide OWTS policy. The project would have no impact on existing zoning or cause rezoning of, forest land or timberland.

***d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?***

**Less-than-Significant Impact.** Installation of more supplemental treatment and community collection OWTS could occur on a wide variety of soil types throughout the state, including forest land. However, the proposed project would not alter the number of OWTS that would be placed on forest land, nor would it meaningfully, if at all, alter the amount of forest land converted for use to OWTS-related uses. The potential impacts of the proposed project on such forest land are considered less than significant.

***e) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?***

**Less-than-Significant Impact.** See the responses to items (a) and (b) above.

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☐ | ☑ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☐ | ☑ |
| c) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☐ | ☑ |
| d) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? | ☐ | ☐ | ☐ | ☑ |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☑ | ☐ |

**Discussion**

***a) Would the project conflict with or obstruct implementation of the applicable air quality plan?***

**No Impact.** The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. Furthermore, the operation of OWTS systems does not generate criteria pollutants specific to air quality. The proposed project would not affect applicable air quality plans.

***b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***

**No Impact.** See the response to item (a) above.

***c) Would the project expose sensitive receptors to substantial pollutant concentrations?***

**No Impact.** See the response to item (a) above.

***d) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

**No Impact.** See the response to item (a) above.

***e) Would the project create objectionable odors affecting a substantial number of people?***

**Less-than-Significant Impact.** Odors could occur for brief periods in areas immediately surrounding OWTS when septic tank clean-out operations are in progress. However, odors resulting from OWTS are not expected to change as the result of the proposed project because the project is not expected to alter the number of OWTS constructed in the future. This impact is considered less than significant.

4. BIOLOGICAL RESOURCES. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the DFG or USFWS? | ☑ | ☐ | ☐ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the DFG or USFWS? | ☑ | ☐ | ☐ | ☐ |
| c) Have a substantial adverse effect on federally-protected wetlands as defined by section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, *etc.*) through direct removal, filling, hydrological interruption or other means? | ☑ | ☐ | ☐ | ☐ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites? | ☑ | ☐ | ☐ | ☐ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☑ |

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ☑ |

## Discussion

***a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?***

**Potentially Significant Impact.** California contains a wide variety of bioregions, from desert environments below sea level, to coastal areas, to alpine areas of 14,000 feet or more in elevation. However, the proposed project would not alter the number of OWTS that would be constructed in these bioregions in the future, nor would it meaningfully, if at all, alter the amount of undeveloped terrestrial habitat converted to OWTS-related uses. Under certain circumstances, the proposed project would affect the water quality of OWTS discharges into groundwater, and this in turn could affect the water quality of surface waters that provide aquatic, riparian or wetland habitat for special-status species. This impact on species that rely on such habitat types is considered potentially significant and will be carried forward for further evaluation in substitute environmental document.

***b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?***

**Potentially Significant Impact.** See the response to item (a) above.

***c) Would the Project have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

**Potentially Significant Impact**. Siting requirements contained in the proposed statewide OWTS policy limit installation of treatment systems to areas with at least 3 feet of separation between the system and seasonal high groundwater, for conventional systems. Lesser soil depths may be granted under an Alternate Program. Percolation of treated effluent into the deeper soil profiles is a critical component of the treatment process for pathogen reduction. For these reasons, OWTS would not be constructed in areas where they could affect wetlands through direct removal or filling. However, OWTS discharges to groundwater could affect surface waters, including wetlands. This impact is considered potentially significant and will be carried forward for further evaluation in the substitute environmental document.

***d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

**Potentially Significant Impact.** As described under question a) above, the proposed project could affect aquatic, riparian or wetland habitats and the species that depend on such habitats.

Therefore, changes in the quality of OWTS discharges to groundwater could affect surface waters that serve as migratory corridors or nursery sites for aquatic species. This impact is considered potentially significant and will be carried forward for further evaluation in the substitute environmental document.

***e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

**No Impact.** The proposed statewide OWTS policy addresses construction, operation, and maintenance of individual treatment systems for residences and small commercial sites, and does not address local plans, policies or ordinances protecting biological resources. Therefore, potential conflicts with such plans, policies or ordinances are not expected.

***f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

**No Impact.** See the response to item (e) above.

5. CULTURAL RESOURCES. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | ☐ | ☐ | ☑ | ☐ |
| b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5? | ☐ | ☐ | ☑ | ☐ |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☑ | ☐ |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☐ | ☑ | ☐ |

**Discussion**

***a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5?***

**Less-than-Significant Impact.** The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. Therefore, the potential impacts of the proposed project on any type of cultural resource, including historical resources, are considered less than significant.

***b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?***

**Less-than-Significant Impact.** See the response to item (a) above.

***c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

**Less-than-Significant Impact.** See the response to item (a) above.

***d) Would the project disturb any human remains, including those interred outside of formal cemeteries?***

**Less-than-Significant Impact.** See the response to item (a) above.

6. GEOLOGY and SOILS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | ☐ | ☐ | ☑ | ☐ |
| i) Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines & Geology Special Publication 42. | ☐ | ☐ | ☑ | ☐ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☑ | ☐ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☑ | ☐ |
| iv) Landslides? | ☐ | ☐ | ☑ | ☐ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☑ | ☐ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | ☐ | ☐ | ☑ | ☐ |
| d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | ☐ | ☐ | ☑ | ☐ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater? | ☐ | ☐ | ☑ | ☐ |

## Discussion

Although all items in Section 6, "Geology and Soils," are identified as less-than-significant impacts, the substitute environmental document will describe the major hydrogeologic and soil conditions found in California and how these influence OWTS siting decisions. Potential effects on soil chemistry and morphology from changes in the water quality of OWTS effluent also will be addressed in the substitute environmental document.

***a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:***

***i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)***

**Less-than-Significant Impact.** The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter

the amount of land converted to OWTS-related uses. Therefore, the proposed project would not likely cause significant seismic- or landslide-related hazards.

***ii. Strong seismic ground shaking?***

***Less-than-Significant Impact.*** *See the response to item (a)(i) above.*

***iii. Seismic-related ground failure, including liquefaction?***

***Less-than-Significant Impact.*** *See the response to item (a)(i) above.*

***iv. Landslides?***

**Less-than-Significant Impact.** See the response to item (a)(i) above.

***b) Would the project result in substantial soil erosion or the loss of topsoil?***

**Less-than-Significant Impact.** The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. Therefore, potentially significant soil erosion or loss of topsoil impacts are not expected.

***c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?***

**Less-than-Significant Impact.** See the response to item (a)(i) above.

***d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?***

**Less-than-Significant Impact.** See the response to item (a)(i) above.

***e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

**Less-than-Significant Impact.** The proposed statewide OWTS policy provides the framework for determining appropriate soil conditions in which to operate OWTS. For this reason, the proposed project includes standards for the installation and operation of OWTS, including adjustments based on soil types. Therefore, this impact would be less than significant.

7. GREENHOUSE GAS EMISSIONS -- Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ☑ | ☐ |
| b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☐ | ☑ |

**Discussion**

***a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

**Less-than-Significant Impact.** The proposed policy will not generate any greenhouse gases directly. Greenhouse gases will be generated during the construction and/or replacement of OWTS, however, these emissions would be minor and of limited duration. Therefore, this impact would be less than significant.

***b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?***

**No Impact.** Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006 (AB 32), mandates that California reduce its greenhouse gas emissions to 1990 levels by 2020. The proposed policy would not conflict with AB 32. Any future requirements for the reduction of greenhouse gas emissions from construction or transportation equipment would need to be complied with and the proposed policy would not interfere with any future requirements related to greenhouse gas emissions.

8. HAZARDS and HAZARDOUS MATERIALS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | | | | |
| (i) Potential hazards related to septage pumping, transport, treatment, and disposal. | ☐ | ☐ | ☑ | ☐ |
| (ii) Potential hazards related to discharge of OWTS effluent into groundwater and surface water. | ☑ | ☐ | ☐ | ☐ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☑ | ☐ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school? | ☐ | ☐ | ☑ | ☐ |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or to the environment? | ☐ | ☐ | ☑ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☑ |

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☑ |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☑ |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☐ | ☑ |

## Discussion

***a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Hazardous materials include hazardous substances and hazardous wastes, which are defined and regulated under several federal and state statutes and associated regulations. California's Health and Safety Code (section 25501[o]) designates hazardous materials as any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. The proposed statewide OWTS policy addresses treatment of household wastewater, up to the level of high-strength wastewater.

Materials considered hazardous substances could enter OWTS septic tanks and dispersal fields through the use of commercial or household cleaning and personal care products that may be discharged into the sanitary system, and through the use of commercial septic tank maintenance products such as cleaners or additives. For the purposes of the proposed OWTS policy, hazardous materials that could be discharged to OWTS include, but are not limited to, such materials as defined under the Health and Safety Code section 25501: (1) substances for which the manufacturer is required to prepare a Material Safety and Data Sheet pursuant to California's Hazardous Substances Information and Training Act; (2) radioactive materials; or (3) materials considered to be a human or animal carcinogen. Commercial chemical products, such as bleach, detergents, scale and stain removals, solvents, and high-strength cleaning products may contain hazardous substances or otherwise qualify as a hazardous material.

In general, the intent of the proposed OWTS policy is to reduce contaminant discharges and improve performance of OWTS. Nevertheless, in response to new requirements included in the proposed policy, regional or local regulatory agencies or private property owners may change the amount of hazardous materials discharged to septic tanks and OWTS dispersal systems over time. For example, a potential response to more frequent septic tank inspections and the results of groundwater monitoring could be an increase in the use of septic tank cleaners or additives. This could result in the detection of hazardous substances associated with OWTS.

By definition and according to applicable regulations, hazardous substances are considered hazardous in their original form and concentrations. In general, the concentration of these

substances in domestic septage would be expected to be small given that the large majority of sewage is water and fecal material. However, hazardous substances discharged into OWTS could reside in the accumulated sewage solids and soluble or dissolved hazardous substances can be subsequently discharged to the effluent dispersal system. Therefore, two types of potential impacts are considered in this section in relation to the question above:

- (a)(i) potential hazards related to septage pumping, transport, treatment, and disposal, and
- (a)(ii) potential hazards related to discharge of OWTS effluent into groundwater and surface water

i) **Less-than-Significant—Potential hazards related to septage pumping, transport, treatment and disposal.** Any hazardous materials discharged into septic tanks may then reside in the accumulated sewage solids. Subsequently, there is a small potential for accidental release of hazardous materials in the sewage sludge when septic tanks are pumped and the accumulated solids are transported to septage handling facilities. However, the potential impact is considered less than significant because the risk of accidental release is anticipated to be low, the quantity of waste material that may be discharged would typically be limited to the small quantity carried by individual pumping trucks, and it is anticipated that accidental spills would be cleaned up in accordance with normal emergency response service (i.e., fire, police) directives and septage hauler licensing requirements.

ii) **Potentially Significant Impact—Potential hazards related to discharge of OWTS effluent into groundwater and surface water.** Hazardous substances that pass through the septic tank and are discharged to groundwater through the dispersal system could pose an environmental or public health risk. Hazardous substances that percolate to groundwater are regulated through applicable groundwater and surface water quality standards. It is not possible to determine the significance of this potential impact without further study. Because the exposure of potential hazardous substances would be through discharges to groundwater or surface water, this potential impact will be carried forward for further evaluation in the Hydrology and Water Quality section of the substitute environmental document (which is covered by section 9 of this checklist), and related impacts will be assessed using applicable water quality standards.

***b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?***

**Less-than-Significant Impact.** The analysis of potential releases of hazardous materials into the environment through routine OWTS operations is described above in the response to item (a)(i).

***c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

**Less-than-Significant Impact.** See the responses to items (a)(i) above. While accidental spills of hazardous materials contained in pumped OWTS septage solids from septic tanks could occur during transport to septage handling facilities, the incremental risk of those

accidents occurring within a school zone are not likely to be measurable, and is thus considered less than significant.

***d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

**Less-than-Significant Impact.** In general, the potential for disclosure of buried hazardous wastes in private real estate transactions is limited in California because the federal and state laws pertaining to hazardous materials and waste management are typically applicable only to public agency and nongovernmental entities. Often the historical land uses of a site, particularly in urbanized areas, are not fully known. Given these circumstances, the potential for development of OWTS on lands that contain hazardous wastes does currently exist and would continue to exist in the foreseeable future. However, the large majority of OWTS are used in rural areas for residential housing. With rare exception, rural areas in California typically reflect past agrarian (i.e., farming, ranching, timber, open space) land uses that have not changed. There are exceptions, such as formerly operated industrial facilities that are not readily apparent from visual inspection of the existing surface conditions and military bases that have undergone closure procedures and lands dispersed for general sale to the public. However, these cases are generally known, documented, and subject to the full force of regulatory policies, regulations, and procedures under state and federal hazardous waste laws.

***e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

**No Impact**. Because the proposed policy would be applicable statewide, there is no way to know at this time if OWTS would be installed within 2 miles of a public airport; however, installation, operation, and maintenance of OWTS would not involve any activities that could result in a safety hazard for people residing or working near an airport. No impact would result.

***f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?***

**No Impact**. As described in item (e) above, installation, operation, and maintenance of OWTS would not involve any activities that could result in a safety hazard for people residing or working near an airport. No impact would result.

***g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

**No Impact**. Installation, operation, and maintenance of OWTS would take place primarily on residential and small commercial sites and would not interfere with emergency response plans or emergency evacuation plans. No impact would result.

***h) Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?***

**No Impact**. OWTS typically are not known to contribute to wildland fires, and therefore the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires is not a potential impact.

9. HYDROLOGY and WATER QUALITY. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Violate any water quality standards or waste discharge requirements? | | | | |
| (1) Violate Water Quality Standards? | ☑ | ☐ | ☐ | ☐ |
| (2) Violate Waste Discharge Requirements? | ☐ | ☐ | ☑ | ☐ |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (*e.g.*, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☐ | ☑ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | ☐ | ☐ | ☑ | ☐ |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | ☐ | ☐ | ☑ | ☐ |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☑ | ☐ |
| f) Otherwise substantially degrade water quality? | ☐ | ☐ | ☑ | ☐ |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☑ | ☐ |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | ☐ | ☐ | ☑ | ☐ |
| i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☐ | ☑ |
| j) Inundation by seiche, tsunami, or mudflow? | ☐ | ☐ | ☐ | ☑ |

**Discussion**

***a) Would the project violate any water quality standards or waste discharge requirements?***

**(a)(i) Potentially Significant Impact**—Violate water quality standards. Even though the proposed project may reduce the amount of wastewater pollutants discharged to groundwater in some situations or, in other situations, keep the amount of wastewater pollutants the same, the relevant provisions of applicable California statutes and regulations pertaining to groundwater and surface water quality protection may still be violated. For instance, the surface water and groundwater water quality objectives (WQOs) for nitrate-nitrogen found in regional water board Basin Plans (typically set at the primary drinking water quality standard of 10 milligrams per liter [mg/l] as nitrogen) may be violated. Studies show that wastewater effluent from conventional OWTS, and systems with supplemental treatment, may exceed this value where OWTS discharges reach groundwater and at other points down gradient or downstream. For example, and as reported in USEPA 2002 based on work by Siegrist 2001, total nitrogen concentrations from conventional OWTS range from 40 to 100 mg/l. Nitrogen concentrations from supplemental treatment systems with aerobic units are typically 25 to 60 mg/l. Nitrogen in OWTS effluent can only be reduced to as low as 10 to 30 mg/l in systems that have supplemental treatment with nitrogen removal recycling. The same study asserts that under the best soil conditions, 3 to 5 feet of good soil can reduce nitrogen concentrations only by about 10 to 20 percent.

Potential violations of nitrate WQOs, bacterial and other types of WQOs, along with potential impairment of related beneficial uses, will be addressed in the substitute environmental document. The WQOs are designed to protect both the environment and public health and will be used in the water quality analysis section of the substitute environmental document to help determine the potential for significant impacts and the need for related mitigation.

(a)(2) Less-than-Significant Impact—Violate waste discharge requirements (WDRs). WDRs and WDR waivers implement the regional water boards' Basin Plans. As they do now, regional water boards would continue to issue WDRs or WDR waivers with specific conditions to be followed once the proposed policy is implemented. To install an OWTS, an applicable permit from the regional water board or lead agencies would be required and the permits would require compliance with the regional water boards' Basin Plan. Where a WDR is used to implement the Basin Plan, occasional WDR violations could occur if septic systems do not function properly, but monitoring options in the proposed policy would be expected to identify such circumstances and remediate them. Therefore, violations of WDRs would not be common and this potential impact would be less than significant.

***b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?***

**No Impact.** Installation and maintenance of OWTS systems does not use groundwater supplies. Further, these systems are designed to treat wastewater through the action of water flow through sediments into the deeper layers of the soil horizon, in most cases resulting in groundwater recharge. Thus, the proposed project would not lower the levels of groundwater tables.

***c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?***

**Less-than-Significant Impact.** The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. Therefore, this potential impact is considered less than significant.

***d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?***

**Less-than-Significant Impact.** See the response to item (c) above.

***e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

**Less-than-Significant Impact.** See the response to item (c) above.

***f) Would the project otherwise substantially degrade water quality?***

**Less-than-Significant Impact.** See the response to item (c) above.

***g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?***

**Less-than-Significant Impact.** See the response to item (c) above.

***h) Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?***

**Less-than-Significant Impact.** See the response to item (c) above.

***i) Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?***

**No Impact.** OWTS do not contain components that could cause flooding. In the case of failure of a septic tank, loss, injury, or death as a result of water escaping from the system almost never occurs because the volume of water is relatively small, and OWTS are typically sited downhill from dwellings. Thus, the proposed project would not increase the risk of flooding.

***j) Would the project result in inundation by seiche, tsunami, or mudflow?***

**No Impact**. Siting criteria and regulations of the local authority would continue to establish appropriate locations for installation of treatment systems and would address, on a site-specific basis, the potential for a system to fail as a result of seiche, tsunami, or mudflow. Even in these circumstances, however, failure of a treatment system would not result in inundation because the volume of water that might escape from a system in rare circumstances is relatively small.

10. LAND USE AND PLANNING. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☑ |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☑ | ☐ |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☐ | ☑ |

**Discussion**

The substitute environmental document will describe local land use regulations and compliance processes that accompany approval and siting of OWTS throughout the state. The substitute environmental document will also evaluate the potential for land use–related effects, including potential changes in development patterns in areas of the state, as part of the growth inducement analysis section of the substitute environmental document.

***a) Would the project physically divide an established community?***

**No Impact**. The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. For these reasons, the proposed project would not physically divide an established community. Thus, there would be no impact.

***b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?***

**Less-than-Significant Impact**. The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. Implementation of the proposed policy would establish performance standards, siting requirements, and operational characteristics for existing and new OWTS throughout California. The proposed project would not change land use and zoning decisions to allow, restrict, and regulate OWTS installation, operation, and maintenance made by local agencies and regional water boards. The proposed project also is not expected to conflict with local land use decisions; for this reason, this potential impact is considered less than significant.

***c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?***

**No Impact.** As described in the response to item (b) above, the proposed statewide OWTS policy is not expected to conflict with local land use and zoning decisions, and similarly, conflicts with local habitat conservation plans or natural community conservation plans are not expected.

11. MINERAL RESOURCES. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State? | ☐ | ☐ | ☑ | ☐ |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | ☐ | ☐ | ☑ | ☐ |

**Discussion**

***a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?***

**Less-than-Significant Impact.** While OWTS are installed in a wide variety of rock formations and geologic conditions statewide, the proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. In addition, siting criteria of the local authority would continue to establish appropriate locations for installation of treatment systems and would address, on a site-specific basis any potential for a system to result in loss of availability of mineral resources. This impact is considered less than significant.

***b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?***

**Less-than-Significant Impact.** See the response to item (a) above.

12. NOISE. Would the project result in:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☑ | ☐ |
| b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☑ | ☐ |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☑ | ☐ |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☑ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing in or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☑ |

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| f) For a project within the vicinity of a private airstrip, would the project expose people residing in or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☑ |

## Discussion

***a) Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in applicable standards of other agencies?***

**Less-than-Significant Impact.** The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. Operation and maintenance of OWTS are not typically noise-producing activities. Supplemental treatment systems may have mechanical components that produce a low level of noise during operation. Because OWTS are generally installed near residences and small commercial enterprises, the sound levels produced by the system are designed to be minimal. Maintenance activities, such as pumping of septic tanks, take place occasionally and could involve higher levels of noise disturbance, but these activities are temporary and occur only periodically (in the case of pumping, once every few years). For these reasons, the proposed project is considered to have a less-than-significant noise impact.

***b) Would the project cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?***

**Less-than-Significant Impact.** See the response to item (a) above.

***c) Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

**Less-than-Significant Impact.** See the response to item (a) above.

***d) Would the project a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

**Less-than-Significant Impact.** See the response to item (a) above.

***e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

**No Impact**. Installation, operation, and maintenance of OWTS under the proposed project would not involve any activities that could expose people residing or working near an airport to excessive noise levels. No impact would result.

***f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?***

**No Impact.** See the response to item (e) above.

13. POPULATION AND HOUSING. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Induce substantial population growth in an area either directly (*e.g.*, by proposing new homes and businesses) or indirectly (*e.g.*, through extension of roads or other infrastructure)? | ☐ | ☐ | ☑ | ☐ |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☑ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☑ |

## Discussion

***a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

**Less-than-Significant Impact.** OWTS are generally installed in rural areas as part of a building permit for a new home or small business. As such, these systems tend to be installed in areas where population growth is taking place. However, the proposed policy is not expected to allow installation of OWTS in areas and on properties where they are not allowed under current regulations. As a result, implementation of the proposed project would not have the general effect of inducing population growth in areas throughout the state. This impact is considered less than significant but, nevertheless, will be carried forward for further evaluation in the substitute environmental document using public comments received during the scoping process.

***b) Would the project displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?***

**No Impact**. Installation of OWTS typically accompanies housing construction and would not displace housing. Thus, there would be no impact.

***c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?***

**No Impact**. Installation of OWTS typically accompanies housing construction and would not displace people. Thus, there would be no impacts.

14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Fire protection? | ☐ | ☐ | ☐ | ☑ |
| b) Police protection? | ☐ | ☐ | ☐ | ☑ |
| c) Schools? | ☐ | ☐ | ☐ | ☑ |
| d) Parks? | ☐ | ☐ | ☐ | ☑ |
| e) Other public facilities? | ☐ | ☐ | ☑ | ☐ |

**Discussion**

***a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:***

***(1) Fire protection?***

***(2) Police protection?***

***(3) Schools?***

***(4) Parks?***

**No Impact**. OWTS are privately-owned facilities operated by individual homeowners or small businesses. These systems do not require fire or police protection, educational or recreational services to construct, operate, or maintain them. Thus, no impacts would occur related to these types of services.

***(5) Other public facilities?***

**Less-than-Significant Impact**. OWTS are privately-owned facilities operated by individual homeowners or small businesses. The proposed project could increase the staffing requirements of the State Water Board, regional water boards, or authorized local agencies. However, if such staffing increases would be required, they would likely be minor and would not be expected to be large enough to require the construction of new facilities. Therefore, such potential impacts would be less than significant.

15. RECREATION. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ☑ |

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☑ |

## Discussion

***a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

**No Impact**. Installation of OWTS generally occurs in rural areas as part of new home or small business construction. OWTS are designed solely for the purpose of treating wastewater, and are not related to the patterns of use at recreational facilities. As such, the proposed project would have no impact on the use of recreational facilities.

***b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?***

**No Impact**. See the response to item (a) above.

16. TRANSPORTATION / TRAFFIC. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | ☐ | ☐ | ☑ | ☐ |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☐ | ☐ | ☑ | ☐ |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☑ |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ☑ |
| e) Result in inadequate emergency access? | ☐ | ☐ | ☐ | ☑ |
| f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | ☐ | ☐ | ☐ | ☑ |

**Discussion**

***a) Would the project exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan, policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?***

**Less-than-Significant Impact.** Installation of OWTS generally occurs in rural areas where traffic loads are relatively light. Construction activities associated with OWTS supplemental treatment installation would generally include use of a backhoe, a dump truck, and possibly one additional piece of construction equipment operating for less than one week. Operation and maintenance activities would include an increase in septic tank inspections and perhaps pumping, but related vehicle trips would occur infrequently and on roads where traffic loads are relatively light. The proposed project would not alter the number of OWTS that would be constructed in the future, nor would it meaningfully, if at all, alter the amount of land converted to OWTS-related uses. The proposed project would have a less-than-significant impact on traffic conditions.

***b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?***

**Less-than-Significant Impact.** As discussed above in the response to item (a), OWTS supplemental treatment installation and maintenance could increase traffic on local and rural roadways, but by a minimal amount and on an infrequent basis. This impact is considered less than significant.

***c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?***

**No Impact**. Installation of OWTS would have no impact on air traffic patterns.

***d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?***

**No Impact**. All OWTS are subject to local codes and most local codes do not allow OWTS to be installed directly adjacent to a roadway. Accordingly this would have no impact on traffic hazards beyond that of the existing conditions, as established by local agencies. Therefore, the proposed project would likely not affect traffic hazards due to a design feature or incompatible uses.

***e) Would the project result in inadequate emergency access?***

**No Impact**. Because the proposed project would not increase the number of OWTS installed over time, OWTS-related traffic patterns or emergency access to either the site of a treatment system or surrounding areas would likely not be affected.

***f) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?***

**No Impact**. For the same reasons described in items (a), and since alternative transportation systems are typically found in more urbanized areas than those where OWTS typically are found, implementation of the proposed policy would likely have no impact on alternative transportation systems.

17. UTILITIES AND SERVICE SYSTEMS. Would the project:

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☐ | ☐ | ☑ | ☐ |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts? | ☑ | ☐ | ☐ | ☐ |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts? | ☐ | ☐ | ☐ | ☑ |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☐ | ☑ |
| e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ☑ |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☑ | ☐ | ☐ | ☐ |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☑ |

**Discussion**

***a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?***

**Less-than-Significant Impact**. See the related discussion in section 9, "Hydrology and Water Quality," item (a)(2).

***b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?***

**Potentially Significant Impact**. While the proposed project is not expected to increase the number of OWTS installed over time, it could lead to an increase in the expansion of existing community collection systems, the construction of new collection systems as opposed to individual OWTS, or although unlikely, an expansion in existing sewer system conveyance capacity or in the capacity of centralized treatment plants. Such possibilities could result if

the proposed policy is considerably more restrictive than OWTS regulations being enforced currently.

The relatively high costs of most supplemental treatment OWTS, which can often be twice the cost of conventional systems, may also make the option of constructing community collection systems and consolidating financial resources attractive to members of a neighborhood or community where local siting conditions are challenging or not appropriate for individual systems.

Thus, the proposed project could lead to more community collection system construction, the expansion of existing sewer lines or treatment plant capacities. Such construction or expansion activities have the potential to cause significant environmental impacts and these potential impacts will be assessed further in the substitute environmental document.

***c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?***

**No Impact**. The proposed project addresses installation, operation, and maintenance of OWTS, which operate independently of any storm drainage system that may be present in a community. Impacts on storm water drainage facilities are not expected.

***d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?***

**No Impact.** The proposed project addresses installation, operation, and maintenance of OWTS systems, and would not impact water supply entitlements.

***e) Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?***

**No Impact.** This potential impact is not expected because OWTS operate independently of the centralized wastewater treatment facilities operated by treatment providers. Thus, there would be no impact. The potential environmental impacts associated with the expansion of existing community collection systems or sewer systems connected to centralized treatment facilities are addressed under item b) above.

***f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?***

**Potentially Significant Impact.** As noted under question b) above, the proposed project could increase the amount of OWTS septage that would be treated at centralized treatment plants or disposed of in septage ponds lined in compliance with Title 27, or through prescribed land application where public contact does not occur. Treatment of septage at centralized treatment plants would generate a solid waste byproduct referred to as biosolids. Biosolids are typically disposed of in landfills; if existing landfill capacities are not sufficient, the proposed project could indirectly cause an expansion in landfill capacities. Thus, this issue needs to be addressed in the substitute environmental document and an increase in the need for solid waste disposal has the potential to cause significant environmental impacts.

***g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?***

**No Impact.** The proposed project would not change the manner in which solid waste is created, handled or disposed of. Thus, there is no reason to believe the proposed project would change how solid waste handling and disposal regulations are complied with.

18. MANDATORY FINDINGS OF SIGNIFICANCE.

| Issues (and Supporting Information Sources): | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☑ | ☐ | ☐ | ☐ |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects) | ☑ | ☐ | ☐ | ☐ |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | ☑ | ☐ | ☐ | ☐ |

**Discussion**

***a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?***

**Potentially Significant Impact.** As described in section 4, "Biological Resources," the potential exists for the proposed project to affect aquatic special-status plant and wildlife species and sensitive natural communities throughout the state. Without further analysis, it is not possible to rule out the possibility that the project could substantially reduce the number or restrict the range of a protected species. These issues will be carried forward for further evaluation in the substitute environmental document.

As described in section 5, "Cultural Resources," impacts on archaeological and historical resources would be less than significant.

***b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are***

***considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)***

**Potentially Significant Impact.** Implementation of the proposed statewide OWTS policy has the potential to cause impacts that are individually limited but cumulatively considerable. Possible areas of cumulative effects include violation of water quality objectives, loss of habitat for aquatic special-status species, and a potential increase in the demand for septage treatment at centralized treatment plants or the disposal of biosolids at landfills. These issues will be carried forward for further evaluation in the substitute environmental document.

***c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?***

**Potentially Significant Impact.** The proposed project has the potential to affect water quality and public health in ways that could cause substantial adverse effects on human beings. These issues will be carried forward for further evaluation in the substitute environmental document.

Preparers:

Frank Roddy, SWRCB
Todd Thompson, SWRCB
Jeanie Mascia, SWRCB

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