Local Agency Management Program for Onsite Wastewater Treatment Systems
Draft for Consideration by the Central Coast Regional Water Quality Control Monterey County’s LAMP Technical Advisory Committee

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SECTION 0: DEFINITIONS

Aerobic. Aerobic means an environment providing readily available (molecular) oxygen to aerobic bacteria metabolizing wastewater.

Alternative Onsite Wastewater Treatment System. Alternative onsite wastewater treatment system is a type of OWTS that utilizes either supplemental treatment and/or a method of wastewater dispersal other than a conventional leachfield for the purpose of producing a higher quality wastewater effluent and improved performance of and siting options for effluent dispersal.

Anaerobic. Anaerobic means septic, an environment with an absence of molecular oxygen. Anaerobic bacteria obtain their oxygen to metabolize wastewater from organic compounds and water.

At Grade System. At grade system is a type of alternative OWTS dispersal system consisting of a gravel distribution bed placed on top of a tilled, in situ soil absorption area, which is then covered by a minimum of 12 inches of suitable soil that will support vegetative growth. Wastewater effluent is applied to the gravel distribution bed using pressure distribution.

Basin plan. Basin plan means the same as “water quality control plan” as defined in Division 7 (commencing with Section 13000) of the California Water Code. Basin plans are adopted by each Regional Water Quality Control Board, approved by the State Water Board and the Office of Administrative Law, and identify surface water and groundwater bodies within each Region’s boundaries and establish, for each, its respective beneficial uses and water quality objectives.

Bedrock. Bedrock means the rock, usually solid, that underlies soil or other unconsolidated, surficial material.

Bedroom. A bedroom is any room in the conditioned (heated) area of a dwelling unit which is:
- 70 square feet or greater in size; and
- Includes an exterior door or window for egress meeting health and safety code standards; and
- Includes a closing door that separates the room from other features of the dwelling.
The following shall not be considered a bedroom: Any interior room that must be passed through to access another bedroom, a hallway; bathroom; kitchen; living room; dining room; family room; breakfast nook; pantry; laundry room; closet/dressing room opening off of a bedroom.

Beneficial uses. Beneficial uses means those qualities in waters of the state that may be protected against quality degradation that include, but are not necessarily limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; esthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife and other aquatic resources or preserves.
**Biomat.** Biomat means the layer of biological growth and inorganic matter that forms at the wastewater-soil interface or infiltrative surface, and may extend as far as 1 inch into the soil matrix. It provides physical, chemical, and biological treatment of the OWTS effluent as effluent migrates toward groundwater.

**Biological Oxygen Demand (BOD).** BOD measures oxygen required for biochemical degradation of organic and inorganic material. High BOD causes an increased biological demand on downstream OWTS components and may shorten the life of the system.

**Central Coast Regional Water Quality Control Board (Central Coast RWQCB).** Central Coast RWQCB means Region 3 of the Regional Water Quality Control Boards as designated by Water Code Section 13200. Any reference to an action of the Regional Water Board in this LAMP also refers to an action of its Executive Officer, including the conducting of public hearings, pursuant to any general or specific delegation under Water Code Section 13223.

**Cesspool.** Cesspool means an excavation in the ground receiving domestic wastewater, designed to retain the organic matter and solids, while allowing the liquids to seep into the soil. Cesspools differ from seepage pits because cesspool systems are not preceded by a septic tank and are not authorized under this LAMP. The term cesspool does not include pit-privies and out-houses which are not regulated under this Policy.

**Clay.** Clay is a kind of soil particle; the term also refers to a type of soil texture. As a soil particle, clay consists of individual rock or mineral particles in soils having diameters <0.002 mm. As a soil texture, clay is the soil material that is comprised of 40 percent or more clay particles, not more than 45 percent sand and not more than 40 percent silt particles using the USDA soil classification system.

**Cobbles.** Cobbles mean rock fragments 76 mm or larger using the USDA soil classification systems.

**Contour Loading Rate.** Contour loading rate, also known as linear loading rate, means the amount of effluent loaded to the soil per the length of the dispersal unit or units along the single hillslope along the contour. The contour loading rate is determined on the relationship between the vertical and horizontal water movement in the soil and is based on the permeability difference between the absorption area and any deeper horizons, the depth between the absorption area and the change in permeability, and the land slope.

**Conventional OWTS.** Conventional OWTS means an OWTS consisting of a septic tank with the effluent discharging into a subsurface leachfield.

**Curtain drain.** Curtain drain means a trench with a pipe in the bottom of the trench for the purpose of intercepting and diverting subsurface water.

**Director.** Director means Director of Monterey County Environmental Health Bureau, or the Director’s authorized deputy(ies), assistant(s), or designee(s).

**Dispersal system.** Dispersal system means a leachfield, seepage pit, mound, at-grade, subsurface drip field, evapotranspiration and infiltration bed, or other type of system for final wastewater treatment and subsurface discharge.
**Domestic wastewater.** Domestic wastewater means wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals, (see Table 4-3) and is defined as having a thirty (30) day average concentration of the following constituents prior to a septic tank or supplemental treatment component:

1. BOD less than or equal to 300 milligrams per liter (mg/L); or
2. TSS less than or equal to 330 mg/L; or
3. FOG less than or equal to 100 mg/L; or
4. TN less than 75 mg/L.

Domestic wastewater may include wastewater from commercial buildings such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater.

Domestic wastewater may include incidental recreational vehicle (RV) holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump stations.

Domestic wastewater does not include wastewater from industrial processes.

**Downhill embankment.** Downhill embankment means an embankment that interrupts the soil strata of the natural slope of the land or has a slope of thirty (30) percent or greater. The slope is measured by taking into consideration the entire slope of the hillside. The embankment can either be manmade or created by natural processes. Examples: manmade (e.g. road cuts, pool/spa excavations etc.); natural (e.g. thirty (30) percent slope, erosion gully, cliff face, etc.).

**Drainageway.** Drainageway means a natural or artificial channel that is not a watercourse as defined by this LAMP. Examples of a drainage way include irrigation and drainage ditches with a cross-sectional area less than 12 square feet, grass-lined swales, canals, storm water runoff devices, or other courses with a cross-sectional area less than 12 square feet unless they are used by fish or to convey waters that were naturally occurring prior to construction.

**Dwelling Unit.** Dwelling unit means a place of human habitation that is self-sufficient (i.e. bedrooms, kitchen with sink, oven/stove, refrigerator, and storage of food, bathroom(s)) and conforms with the most recent edition of the Uniform Building Code and the Uniform Housing Code. A guesthouse, as defined in Monterey County Zoning Code (Titles 20 and 21) is not considered a dwelling unit.

**Effective Depth.** Effective depth means the depth of the useable permeable layers of soil below the bottom of the trench pipe.

**Effluent.** Effluent means sewage, water, or other liquid, partially or completely treated or in its natural state, flowing out of a septic tank, aerobic treatment unit, dispersal system, or other OWTS component.

**Existing OWTS.** Existing OWTS means an OWTS that was constructed and operating prior to the effective date of this Policy, and OWTS for which an OWTS construction permit has been issued prior to the effective date of this LAMP.
**Fats, Oils and Grease (FOG).** FOG measures biological lipids and mineral hydrocarbons. The analytical test for FOG does not measure an absolute quantity, but is useful in making comparisons of wastewater. High FOG results in a highly increased biological demand on downstream OWTS components and may drastically shorten the life of the system.

**Gray Water.** Gray water means untreated wastewater that has not been contaminated by any toilet discharge, and has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes (Health and Safety Code section 17922.12). Gray water includes used water from bathtubs, showers, bathroom wash basins, clothes washing machines and laundry tubs. Gray water does not include waste water from kitchen sinks or dishwashers.

**Gray Water System.** Gray water system is a gray water disposal system that disposes of gray water subsurface and conforms with the latest edition of the California Plumbing Code.

**Groundwater.** Groundwater means water below the land surface that is at or above atmospheric pressure.

**Guesthouse.** Guesthouse means the same as described in Monterey County Zoning Ordinances (Titles 20 and 21) and is considered a detached bedroom for purposes of sizing the OWTS.

**Health Department.** Health Department means the Monterey County Health Department.

**High Strength Wastewater.** High strength wastewater is defined as wastewater with a measure strength greater than domestic wastewater and is defined as having a thirty (30) day average concentration of the following constituents prior to the septic tank or a supplemental treatment component:

1. BOD greater than 300 milligrams per liter (mg/L); or
2. TSS greater than 330 mg/L; or
3. FOG greater than 100 mg/L; or
4. TN greater than 75 mg/L.

**International Association of Plumbing and Mechanical Officials (IAPMO).** IAPMO is a service organization, providing code development assistance, industry-leading education, plumbing and mechanical product testing and certification, building product evaluation and a manufacturer-preferred quality assurance program.

**Impervious layer or material.** Impervious layer or material is characterized as having a percolation rate slower than one hundred twenty (120) minutes per inch or having clay content of sixty (60) percent or greater.

**Local Agency Management Program for Onsite Wastewater Treatment Systems in Monterey County (LAMP).** LAMP means this document, which conforms to all of the applicable Tier 2 criteria listed in Section of the OWTS Policy, including adherence to the prohibitions specified in Section 9.4 of the Policy.
**Leachfield.** Leachfield means a system of rock-filled trenches or beds that distribute treated sewage effluent for subsurface dispersal into the soil. A leachfield is also known as a “drainfield” or a “soil absorption system.”

**Major repair.** Major repair means either: (1) for a dispersal system, repairs required for an OWTS dispersal system due to surfacing wastewater effluent from the dispersal field and/or wastewater backed up into plumbing fixtures because the dispersal system is not able to percolate the design flow of wastewater associated with the structure served; (2) for a septic tank, repairs required for a compartment baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating or replacement of the tank.

The following shall not be considered a major repair:
- For a dispersal field, a perforated pipe repair of less than ten percent of a dispersal field length.
- For a septic tank, patching of minor cracks in a septic tank that do not degrade structural integrity and do not cause wastewater to exfiltrate or groundwater to infiltrate.

**Mottling.** Mottling means a soil condition that results from oxidizing or reducing minerals due to soil moisture changes from saturated to unsaturated over time. Mottling is characterized by spots or blotches of different colors or shades of color (grays and reds) interspersed within the dominant color as described by the USDA soil classification system. This soil condition can be indicative of historic seasonal high groundwater level, but the lack of this condition may not demonstrate the absence of groundwater.

**Mound system.** Mound system is a type of alternative OWTS dispersal system consisting of an aboveground, covered sand bed with effluent leachfield elevated above original ground surface inside, used to enhance soil treatment, dispersal, and absorption of effluent discharged from an OWTS treatment unit such as a septic tank. Mound systems have a subsurface discharge.

**NSF.** NSF is an acronym for National Sanitation Foundation (also known as NSF International), a not for profit, non-governmental organization that develops health and safety standards and performs product certification.

**New OWTS.** New OWTS means an OWTS permitted after the effective date of this LAMP. A new OWTS is any new system installed to serve a new structure or an elective rebuild of an existing structure. For example, a rebuild of a fire damaged structure is not considered a New OWTS.

**Nitrogen.** Nitrogen is of concern due to its impact on groundwater and surface water environment. Nitrogen acts as a potentially limiting nutrient for photosynthetic autotrophs in surface water and as a potential health risk in groundwater. The principal forms of nitrogen found in wastewater are organic nitrogen (Organic-N), ammonia nitrogen (NH3-N), ammonium nitrogen (NH4-N), nitrite nitrogen (NO2-N), and nitrate nitrogen (NO3-N). These forms of nitrogen are expressed either individually or as components of the following:

1. Total Kjeldahl Nitrogen (TKN), which is the sum of (Organic-N) + (NH3-N)
2. Total Inorganic Nitrogen (TIN), which is the sum of (NH3-N) + (NO2-N) + (NO3-N)
3. Total Nitrogen (TN), which is the sum of (TKN) + (NO2-N) + (NO3-N)
Oil/Grease interceptor means a passive interceptor that has a rate of flow exceeding 50 gallons-per-minute and that is located outside a building. Oil/grease interceptors are used for separating and collecting oil and grease from wastewater.

Onsite Wastewater Treatment System (OWTS). OWTS means individual wastewater disposal systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal. The short form of the term may be singular or plural. OWTS do not include gray water systems pursuant to Health and Safety Code Section 17922.12.

OWTS Policy. OWTS Policy is the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems as adopted by the State Water Resources Control Board on June 19, 2012.

Pathogens. Pathogens mean disease-causing microorganisms. Their presence is indicated by sampling wastewater for coliform bacteria.

Percolation test. Percolation test is a method of testing water absorption of the soil. The test is conducted with clean water and test results can be used to establish the dispersal system design.

Percolation rate. Percolation rate means the speed at which water moves through soil, usually reported in minutes per inch.

Person. Person means any individual, firm, association, organization, partnership, business trust, corporation, company, State agency or department, or unit of local government who is, or that is, subject to this LAMP or the OWTS Policy.

Privy. Privy means a structure (portable or fixed) and excavation used for the disposal of human wastes without the aid of water or chemical toilets (portable or fixed) which are subsequently pumped and disposed of in an approved facility.

Qualified professional. Qualified professional means an individual licensed or certified by a State of California agency to design OWTS and practice as professionals for other associated reports, as allowed under their license or registration. Depending on the work to be performed and various licensing and registration requirements, this may include an individual who possesses a registered environmental health specialist certificate or is currently licensed as a professional engineer or professional geologist. For the purposes of performing site evaluations, Soil Scientists certified by the Soil Science Society of America are considered qualified professionals. Qualified professionals must obtain an annual registration from the Health Department.

Reserve Area. Reserve area means an accessible area that shall be available to accommodate a minimum of one replacement dispersal system without utilization or disruption of the initial installation(s). The reserve area shall be considered for new or increased uses, but not repairs or replacements, and be planned and maintained to facilitate replacement system installation as needed.

Reservoir. Reservoir means a pond, lake, basin or other space either natural or created in whole or in part by the building of engineering structures, which is used for storage, regulation and control of water, recreation, power, flood control or drinking. A detention pond designed to meter runoff water during a storm event is not considered a reservoir.
**Sand.** Sand is a kind of soil particle; this term also refers to a type of soil texture. As a soil particle, sand consists of individual rock or mineral particles in soils having diameters ranging from 0.05 to 2.0 millimeters. As a soil texture, sand is soil that is comprised of 85 percent or more sand particles, with the percentage of silt plus 1.5 times the percentage of clay particles comprising less than 15 percent.

**Sanitary sewer.** Sanitary sewer means a system for collecting residential or municipal wastewater and directing the collected wastewater to a treatment works prior to dispersal.

**Seepage pit.** Seepage pit means a drilled or dug excavation, three to six feet in diameter and gravel filled, that receives the effluent discharge from a septic tank or other OWTS treatment unit for dispersal.

**Septage.** Septage means solid residue with low water content from septic tanks, privies, or wastewater treatment facilities.

**Septic tank.** Septic tank means awatertight, covered receptacle designed for primary treatment of wastewater and constructed to:

1. Receive wastewater discharged from a building;
2. Separate settleable and floating solids from the liquid;
3. Digest organic matter by anaerobic bacterial action;
4. Store digested solids; and
5. Clarify wastewater for further treatment with final subsurface discharge.

**Shallow Pressure-Distribution Trench.** Shallow pressure-distribution trench is a type of Alternative OWTS dispersal field, similar to a conventional gravity leachfield except that it uses a pump and small-diameter pressure piping to achieve broad, uniform distribution of wastewater in the shallow soil zones for improved soil absorption and enhanced treatment of percolating effluent.

**Sheetwater.** Sheetwater means groundwater that flows in a relatively thin sheet upon an impermeable or very slowly permeable soil layer, such as clay.

**Silt.** Silt is a kind of soil particle; this term also refers to a type of soil texture. As a soil particle, silt consists of individual rock or mineral particles in soils having diameters ranging from between 0.05 and 0.002 mm. As a soil texture, silt is soil that is comprised as approximately 80 percent or more silt particles and not more than 12 percent clay particles using the USDA soil classification system.

**Soil.** Soil means the naturally occurring body of porous mineral and organic materials on the land surface, which is composed of unconsolidated materials, including sand-sized, silt-sized, and clay-sized particles mixed with varying amounts of larger fragments and organic material. The various combinations of particles differentiate specific soil textures identified in the soil textural triangle developed by the United States Department of Agriculture (USDA) as found in Soil Survey Staff, USDA: Soil Survey Manual, Handbook 18, U.S. Government Printing Office, Washington, DC, 1993, p. 138. For the purposes of this LAMP, soil shall contain earthen material of particles smaller than 0.08 inches (2 mm) in size.

**Soil Structure.** Soil structure means the arrangement of primary soil particles into compound particles, peds, or clusters that are separated by natural planes of weakness from adjoining aggregates.
**Soil Texture.** Soil texture means the soil class that describes the relative amount of sand, clay, silt and combinations thereof as defined by the classes of the soil textural triangle developed by the United States Department of Agriculture.

**Subsurface drip dispersal.** Subsurface drip dispersal is a type of Alternative OWTS dispersal system consisting of small diameter flexible plastic tubing manufactured with emitters spaced uniformly along its length that releases treated wastewater to the soil for final treatment and dispersal; the drip field is designed and installed such that the drip tubing is installed in the shallow surface soils, typically 8 to 12 inches below finished grade.

**Supplemental Treatment.** Supplemental treatment means a device or system used in an OWTS to perform additional wastewater treatment functions, beyond primary treatment, and capable of reliably producing wastewater effluent of secondary quality or better, prior to discharge to the dispersal system. For the purposes of this chapter, secondary quality is defined as effluent meeting 30-day average concentration limits of 30 mg/L for biochemical oxygen demand and 30 mg/L for total suspended solids.

**Telemetric.** Telemetric means the ability to automatically measure and transmit OWTS data by wire, radio, or other means.

**Total Suspended Solids (TSS).** TSS are a constituent of total solids. TSS is residue retained on a filter after drying the sample and is a measure of the level of treatment being achieved. TSS can be inorganic particles, which are difficult for biological processes to break down, resulting in mechanical clogging. In wastewater with high TSS, inorganics are less easily broken down and can accelerate mechanical clogging of the infiltrative surface of the dispersal system.

**United States Geological Survey (USGS).** USGS is a scientific agency for natural sciences, including earth science and biology and maintains topographic maps of blue-line streams.

**Wastewater.** Wastewater includes sewage, gray water, and any and all other contaminated liquid waste substances associated with human habitation.

**Watercourse.** Watercourse means any of the following:

1. A stream or surface water feature as mapped by the United States Geological Survey (USGS); or
2. Any channel with a bed, banks, or sides throughout substantially all its length that is not mapped by the USGS and has a cross-sectional area (depth x width) greater than 12 square feet; or
3. Any channel with a bed, banks, or sides throughout substantially all its length that is not mapped by the USGS that consistently conveys water for more than 3 months out of the year or is used by fish.
SECTION 1: INTRODUCTION

1.1 Introduction

This Local Agency Onsite Wastewater Treatment Systems Management Program ("LAMP") pertains to the oversight of onsite wastewater treatment systems ("OWTS") within the County of Monterey, California. OWTS are individual systems designed to treat and dispose of domestic wastewater, sewage, below ground, usually on the same property that produces the wastewater. A septic tank and leach field, referred to as conventional OWTS, relies on natural processes to treat wastewater, and is the oldest and most common type of OWTS. In recent decades, wastewater treatment has advanced to include supplemental treatment technologies and modified dispersal fields that improve the quality of wastewater effluent prior to final dispersal in the soil. These systems are referred to as alternative OWTS. This LAMP develops standards for all new, repair, expansion and replacement OWTS and for OWTS demolition within Monterey County.

Both conventional and alternative OWTS produce septage, which is the partially treated, residual sludge that accumulates over time in a septic tank. Septage is pumped out of a septic tank by a licensed liquid waste hauler using a vacuum truck, and disposed of at a centralized wastewater treatment facility. Centralized wastewater treatment facilities differ from OWTS in that they receive wastewater from cities or other regional areas by way of a sewage collection system and treat the wastewater before disposal or beneficial reuse. This LAMP does not address centralized wastewater treatment facilities.

Gray water is non-potable but relatively clean wastewater from baths, sinks, clothes washing machines or dish washers that is free of fecal contamination. Gray water tends to contain fewer pathogens than sewage and can be beneficially reused onsite for subsurface irrigation and if treated, for toilet flushing or other non-potable uses. Gray water systems are governed by Chapter 16 of the California Plumbing Code. This LAMP does not address gray water systems.

Through the Porter-Cologne Water Quality Control Act, the California Water Code authorizes the State Water Resources Control Board ("State Water Board") to regulate all discharges that could affect the water quality and beneficial uses of waters of the State. The policies of the State Water Board are implemented locally by the State's nine Regional Water Quality Control Boards ("Regional Water Boards"). Historically, each of the nine Regional Water Boards have developed and adopted water quality control plans that outline water quality objectives in their respective jurisdictions ("basin_Basin Plans") as well as policies and programs to achieve those objectives. The basin plans are reviewed triennially and amended as necessary by the Regional Water Boards, subject to the approval of the California Office of Administrative Law, the State Water Board, and ultimately the U.S. Environmental Protection Agency (EPA).
The Regional Water Boards implement the basin plans by issuing and enforcing permits ("waste discharge requirements" or "WDRs") and waivers. The Central Coast Regional Water Quality Control Board ("Central Coast RWQCB") issues WDRs to individuals, communities, or businesses whose waste discharge can affect water quality. These requirements can be either State WDRs for discharges to land, or federally delegated National Pollutant Discharge Elimination System ("NPDES") permits for discharges to surface water. These discharges are managed so that: 1) they meet waste discharge requirements; 2) water quality objectives are met; and, 3) established beneficial uses of those waters are protected.

The RWQCB originally adopted rules for septic systems in 1983. Those rules called on local permitting agencies, mostly counties, to develop plans to manage septic systems, especially in urbanized areas and areas where site conditions were not favorable for septic systems.

The State’s regulatory authority extends to individual OWTS. Requirements for OWTS have been incorporated into the Regional Water Boards respective basin plans. The State Water Board, and therefore the Regional Water Board, recognizes that responsible local agencies can provide the most effective means to manage these systems throughout the state and have therefore, extended regulatory authority for OWTS to local agencies through interagency memoranda of understanding ("MOU") between the Regional Water Boards and the local agencies. The County of Monterey entered into an MOU with the RWQCB on June 12, 1979. The MOU authorized the Monterey County "Director of Public Health or his or her authorized representative" to serve as "the administrator of the individual sewage disposal regulations". The County's MOU was conditional upon the County administrative authorities enforcing the "Regional Water Quality Control Plan, Central Coast Basin (known as the basin plan).

On September 27, 2000, Governor Gray Davis signed into law, Assembly Bill 885 (AB 885) that required the State Water Board to adopt standards or regulations for the permitting and operation of OWTS by January 1, 2004. AB 885 was originally written to address coastal onsite treatment systems but was later amended to address all OWTS throughout California (www.leginfo.ca.gov – AB885 1999-2000).

Draft state standards were released in 2005, but were not adopted at that time due to opposition by the public and special interest groups. At that time, California was one of only two states that had not yet adopted standards for the permitting and operations of OWTS. In 2011, the organizations Heal the Ocean Santa Barbara and Heal the Bay Santa Monica, filed a lawsuit against the State Water Board for failure to act. This resulted in the adoption of the statewide OWTS policy.

The purpose of the OWTS Policy is to allow for the continued use of OWTS, while protecting water quality and public health. It is the intent of the State Policy to efficiently utilize and improve upon existing local programs through coordination between State and local agencies. The policy establishes a state-wide, risk based, tiered approach for the regulation and management of OWTS installations and replacements, and sets the level of performance and protection expected from OWTS. The State Policy requires action for water bodies specifically identified as part of the Policy where OWTS contribute to water quality degradation that adversely affect beneficial uses.

Applicable statewide, the OWTS Policy designates the Regional Water Boards as having principal responsibility for overseeing its implementation and calls for the incorporation of the OWTS Policy requirements into Regional Water Board respective basin plans within a year of the policy’s effective date of the OWTS Policy.


Implementation of the OWTS Policy will provide more effective and efficient regulation of onsite systems. In addition, Resolution No. R3-2013-0005 rescinds three previously adopted resolutions related to OWTS (R3-2008-0005, R3-2009-0012, and R3-2011-0004).

The OWTS Policy also conditionally waives the requirement for owners of OWTS to apply for and receive waste discharge requirements in order to operate their systems when they meet the conditions set forth in the OWTS Policy.

California is well known for its extreme range of geological and climatic conditions. As such, the establishment of a single set of criteria for OWTS would either be too restrictive so as to protect for the most sensitive case, or would have broad allowances that would not be protective enough under some circumstances. To accommodate this extreme variance, the OWTS Policy allows local agencies to submit a Local Agency Management Plans (“LAMP”) for approval by the Central Coast RWQCB and then to manage the installation of new and replacement OWTS under that program.

The County of Monterey Department of Health, Environmental Health Bureau (the “EHB”), has prepared this LAMP, subject to Board of Supervisors’ adoption, to manage the installation of new and replacement OWTS in conformance with the OWTS Policy. It is the intent of the EHB, as the Administrative Authority, to regulate all domestic wastewater flows up to 10,000 gallons per day (“gpd”), the maximum allowed under State regulations. Discharges below 10,000 gpd, with unique and/or complex situations may also be regulated by the Central Coast RWQCB depending on the nature of the...
discharge, difficult siting constraints, existing water quality background, effluent disposal/discharge to surface waters of the United States, and other factors.

This LAMP applies to all unincorporated areas of Monterey County, but does not extend within the boundaries of incorporated cities. The County may amend its ordinance own ordinance to extend County authority over OWTS to any city or jurisdictional area that has itself adopted an ordinance or resolution consenting to County authority. This will also require the County to enter into a written agreement extending the LAMP to the city or jurisdictional area.

The LAMP must be brought to the Board of Supervisors for adoption upon approval by the Central Coast RWQCB. It is also expected that this LAMP will require review, updates and revisions over time as the program is implemented. Section 9.3.3 of the OWTS Policy requires that the County monitor the LAMP every five years to determine if water quality is being impacted. The effectiveness of the program, along with identified needs for update and change to this LAMP will be considered in subsequent years, and necessary changes will be incorporated in consultation with the Central Coast RWQCB. Within one year of LAMP approval by the Central Coast RWQCB and adoption by the Monterey County Board of Supervisors, required changes to Monterey County Code to update the County Code to be consistent with the LAMP will be brought to the Monterey County Board of Supervisors for approval.

1.2 Purpose and Goals

Program Purpose
This LAMP provides an alternative method from the OWTS State Policy Tier 1 Program to achieve the same policy purpose, which is to protect water quality and public health. Through this LAMP, the County of Monterey intends to protect water quality and public health from OWTS sewage contamination through the proper design, placement, installation, maintenance, and assessment of individual OWTS.

This LAMP develops minimum standards for the treatment and disposal of sewage through the use of OWTS in Monterey County. This LAMP is intended to act as a guidance document for land owners and developers intending to construct, reconstruct, demolish/abandon, or repair any onsite wastewater treatment and dispersal system within Monterey County. This LAMP also applies to OWTS on federal, state, and tribal lands to the extent authorized by law or agreement.

Primary Program Goals
This LAMP has the following primary program goals:

- Allow for the long-term, effective treatment of household and domestic wastewater by means of conventional and alternative OWTS in those areas that are geographically removed from centralized wastewater collection and treatment systems.
• Ensure that all existing and proposed conventional and alternative OWTS are properly sited, designed, constructed, and maintained under the jurisdictional authority of the County.
• Prevent premature failure of OWTS through the implementation of State prescribed minimum design and operating standards.
• Prevent sewage discharges to the ground surface to avoid direct public contact.
• Minimize risk from reuse of inadequately treated effluent for drinking water, irrigation or other uses.

**Secondary Program Goals**
This LAMP has the following secondary program goals:

**Public Health Protection Goals:**
- Reduce health risks associated with sewage backup in homes and businesses.
- Prevent groundwater and well water contamination due to pathogens, nitrates, and other toxic substances that discharge from OWTS.
- Prevent shellfish habitat and harvest areas from pathogenic contamination and excessive nutrients.
- Minimize risk from inadequate management of septic tank residuals.
- Minimize risk due to public access to system components.

**Public Nuisance Abatement Goals:**
- Eliminate odors caused by inadequate plumbing and treatment processes.
- Eliminate odors or other nuisances related to transportation, reuse, or disposal of OWTS residuals such as septage.

**Environmental Protection Goals:**
- Prevent and reduce adverse impacts on water resources due to pollutants discharged to-from onsite systems.
- Protect shellfish habitat and harvest areas from pathogenic contamination and excessive nutrients.
- Prevent and reduce nutrient over-enrichment of surface waters.
- Protect sensitive aquatic habitat and biota.

1.3 **Legal Authority**
Monterey County Code, Section 15.20.005, recognizes the legal and regulatory authority for the County to administer, oversee and enforce regulation of OWTS throughout the County. The County will continue to have authority to regulate OWTS; however, such authority now derives from the State’s June 19, 2012 OWTS Policy. Under that policy, the County may adopt a LAMP, and if the LAMP is approved by the Central Coast RWQCB, the County has authority to regulate OWTS locally in accordance with the LAMP and to implement the LAMP. The County intends to adopt an ordinance amending and updating Chapter 15.20 to conform to the LAMP following the Central Coast RWQCB’s approval and County’s adoption of the LAMP.

Monterey County Local Agency Management Program for OWTS – DRAFT 05/13/16
Section 1: Introduction
1.4 Prior Studies
Two areas in particular, Carmel Highlands and Carmel Valley, have been studied and/or identified previously as areas of concern with regards to the installation of OWTS.

Carmel Highlands Onsite Wastewater Management Study and Plan
The Carmel Highlands area has challenging site constraints that make the area not amenable to conventional OWTS. In general, the majority of existing and new OWTS cannot meet the Tier 2 requirements of the OWTS Policy; thus wastewater disposal in this area will require special considerations and alternative OWTS to achieve the goals of this LAMP for protection of public health and water quality. The County prepared and adopted the Carmel Highlands Onsite Wastewater Management Plan (OWMP) on December 15, 2009. A summary of this OWMP and salient points as it pertains to this LAMP, are included in Section 116 of this LAMP below.

Carmel Valley Wastewater Study
In 1982, Montgomery Engineers prepared a study entitled Carmel Valley Wastewater Study. The purpose of this study was to provide a planning tool for the evaluation of the cumulative impacts of using on-site wastewater facilities in the study area, based upon an analysis of soil percolation rates, soil depths, topography, groundwater, water quality, lot sizes, and septic system operations. The study used this information to determine septic tank capacity in Carmel Valley relative to ultimate build-out projections in the 1980 Carmel Valley Master Plan for this area. Refer to Section 116 below for a summary of the study as it relates to this LAMP, and the management of septic tanks in Carmel Valley.
SECTION 2: PROJECT AREA

This section describes the Monterey County area (Project Area) as a whole, with an emphasis on parameters germane to septic tank applications throughout the County. Monterey County is located along the central coast of California. It is bordered on the north by Santa Cruz County, on the east by San Benito, Fresno and Kings Counties, on the south by San Luis Obispo County and on the west by the Pacific Ocean. According to the U.S. Census Bureau, Monterey County has a total area of 3,771 square miles, of which 3,281 square miles is land, and 491 square miles is water. The County is approximately 130 miles long and approximately 30 miles wide. Refer to Figure 2-1 for the location of Monterey County.

The Salinas Valley extends approximately 90 miles, from the City of Salinas to King City, nestled between the Gabilian (east) and Santa Lucia (west) mountain ranges. Salinas River watershed extends from the headwaters (south of City of Atascadero, San Luis Obispo County) to the mouth of the river at Monterey Bay, draining approximately 5,000 square miles. Cities in the Salinas Valley include Gonzales, Greenfield, King City, Salinas and Soledad. Populated places that are unincorporated in the Salinas Valley include Bradley, Castroville, Chualar, Jolon, Lockwood, San Ardo, San Lucas and Spreckels. The highest densities of urban development (residential, commercial and industrial) are clustered in the northern part of the Salinas Valley, in the vicinity of Monterey Bay. Urban acreages have also experienced substantial growth, most of which has occurred in Marina, Castroville, Salinas, Gonzales, Greenfield, Soledad, and King City. Figure 2-1 identifies the location of these and other urban areas within Monterey County.

The climate in the Salinas Valley is Mediterranean and is moderated by the Pacific Ocean. Summers are generally mild and winters are cool. Precipitation is almost entirely rain with approximately 87 percent falling from November through April. Mean annual precipitation throughout the mountain ranges surrounding the Salinas Valley ranges from 15 to 60 inches, with about 20 inches occurring near the Gabilian Range to about 25 inches in the Santa Lucia Range.

Mean annual precipitation in the Valley itself ranges from 10 to 15 inches, with about 11 inches occurring in Soledad to approximately 14 inches at Nacimiento and San Antonio Reservoirs.

2.1 Population

As of the census of 2010, the County’s population was 415,057, comprising 121,236 households. The population density at that time was 121 people per square mile with an average housing-unit density of 40 units per square mile. Most of the people live near the northern coast and Salinas Valley, while the southern coast and inland mountain regions are almost devoid of human habitation.
2.2 Board of Supervisors
At the local level, the County of Monterey is governed by the Monterey County Board of Supervisors. Like all county governing bodies in California, the Monterey County Board of Supervisors is the chief governing body for all unincorporated areas in the County boundaries.

The Board has five elected members, each of whom represents one of five districts. Taken together, the five districts comprise the entirety of the County. The Board conducts its meetings in the county seat, Salinas. The County is a member of the regional government agency, the Association of Monterey Bay Area Governments.

Supervisorial district boundaries are divided roughly equally according to population, using data from the most recent census. Boundaries are adjusted decennially based on data reported by the United States Census Bureau for the most recent census.

2.3 Unincorporated Portions of Monterey County
The majority of land within Monterey County is unincorporated (refer to Figure 2-1). The housing stock in the unincorporated areas of Monterey County is comprised primarily of single-family housing. The agricultural/rural areas of the County typically have single family homes on large parcels of land. More traditional “subdivision-type” homes built in recent decades can be found in several communities, such as Prunedale. There are also other, older communities in the County that have historically significant housing, such as the original factory town of Spreckels. The predominant housing type throughout the County regardless of geographic area is single-family housing.

According to the 2008-2012 American Community Survey (ACS), State Department of Finance, the total number of units in the unincorporated areas was 39,571 as of January 2008, 38,683 in 2012. Approximately 83.4 percent (33,101) of the housing stock was single-family units, the majority (30,406) of which was single-family detached units. Multi-family housing accounted for around 10 percent of the housing stock in 2008, equivalent to the share of mobile homes.

County-wide, single-family units have accounted for the majority of new construction in the unincorporated areas of the County in recent years. In comparison to the types of units in 2000, there has been a decrease in mobile homes in the unincorporated areas. Table 17 (County General Plan) provides information relating to housing unit growth by type (2000 and 2012).
Nearly 60 percent of the County’s unincorporated land area is used for agricultural uses and about 28 percent is reserved for public and quasi-public uses. Approximately 1 percent of unincorporated land in Monterey County is developed with residential (0.7 percent), commercial (0.03 percent) and industrial (0.3 percent) uses. Most of this development is concentrated in the northern part of the County. Approximately 90 percent of the County’s population growth between 1990 and 2009 occurred within incorporated cities.

The 2010 Monterey County General Plan, which governs in the non-coastal unincorporated area of the County, directs new residential development primarily to areas that are already committed to some degree of residential development. This emphasis allows the County to balance its commitment to accommodating its fair share of the regional housing needs with water supply and infrastructure limitations, and the need to conserve its extensive agricultural and natural resources.

### 2.4 Geology and Soils

The soils in Monterey County vary considerably as a result of the extremely varied topography (Figure 2-6a through Figure 2-7b). Silicon/quartz deposits are dominant along the beaches to the west, extending to rich alluvial deposits, prime for croplands, in the Salinas Valley to the east.

Because Monterey County exhibits a Mediterranean climate with warm dry summers and cool moist winters, potential evapotranspiration is greatest during the dry season, and thus soil profiles are rapidly depleted of moisture in the summer months and are recharged in the winter.
Figures 2-3a through 2-3c indicate the approximate soil classification system ("SCS") soil drainage classes within Monterey County. The term "drainage class" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. The soil drainage class assigned to any one area therefore reflects the presence of free water or a water table in the soil. Whether a water table occurs or not is best determined using measurements made from wells. Such data are rare for soils, in part because such data should be collected one or more times per month for several years to ensure that observations include an "average year" of rainfall. In place of water table data, and during periods of low annual rainfall and drought, the depth to gray color or gray mottles is often considered to approximate the depth to the seasonal high water table.

Some soils are seasonally wet or subject to flooding. Some are too unstable to be used to support structures. Clayey or wet soils are poorly suited to use as septic tank dispersal/absorption fields. Although soil survey information is readily available for Monterey County through USDA and Natural Resources Conservation Service ("NRCS") data sources, onsite investigation is needed. Due to the scale and mapping limitations of the SCS base map, small occurrences of some soil types are not shown, although they may be scattered over the entire area. Great differences in soil properties can occur within short distances.

Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration in Figure 2-3 through 2-3c, unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized. They include: (1) excessively drained, (2) somewhat excessively drained, (3) well drained, (4) moderately well drained, (5) somewhat poorly drained, (6) poorly drained, and (7) very poorly drained. These classes are defined in the "Soil Survey Manual."

The following definitions are provided as they relate to Figure 2-3 through 2-3c.

**Excessively Drained:** Water is removed very rapidly and water holding capacity is very low. Soils are usually very sandy or gravelly or are shallow on steep slopes. Irrigation would be needed for crop production.

**Well Drained:** Seasonal High Water table is not within the rooting zone long enough during the growing season to adversely affect yields. Gray colors or mottles are absent in the A and B horizons or occur below 48 inches. The B horizon is usually uniform in color.

**Moderately Well Drained:** Seasonal High Water table is within the rooting zone for a sufficiently long period of time to adversely affect some crops unless the soil is artificially drained. Gray colors or mottles occur in
the lower B and/or C horizons between 24 and 48 inches.

**Poorly Drained:** Seasonal High Water table is at or near the surface during a large part of the year. The A horizons are thin (<10 inches), dark gray to black, and subsurface horizons are dominantly gray beginning at 10 inches or just below the A horizon.

**Very Poorly Drained:** Seasonal High Water table is at the surface most of the year. The A horizons or O horizons are usually thick (>10 inches), dark gray or black, and subsoils are gray. Thick A or O horizons and gray subsoil are used to identify this class, not simply gray mottles. These soils can be found on flat landscapes or in depressions. They are frequently flooded or ponded.

Hydrologic Soil Groups (“HSG”) within the United States are assigned to one of four primary groups (A, B, C, and D) and three dual classes (A/D, B/D, C/D) by the NRCS. The HSG, along with land use, management practices, and hydrologic conditions, determine a soil associated runoff curve number. Runoff curve numbers are used to estimate direct runoff from rainfall. Soils assigned to a specific hydrologic soil group have similar physical and runoff characteristics. The assigned groups can be found by consulting the NRCS Field Office Technical Guide, published soil survey data bases, the NRCS Soil Data Mart Web site (http://solidatamart.nrcs.usda.gov), and/or the Web Soil Survey Web site (http://websoilsurvey.nrcs.usda.gov).

These classes are based on the following factors:
- Intake and transmission of water under the conditions of maximum yearly wetness (thoroughly wet)
- Soil not frozen
- Bare soil surface
- Maximum swelling of expansive clays

Hydrologic Soil Groups are defined as follows:

**Group A.** Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission. Water is transmitted freely through the soil. Group A soils typically have less than 10 percent clay and more than 90 percent sand or gravel and have gravel or sand textures. Some soils having loamy sand, sandy loam, loam or silt loam textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments.
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission which is unimpeded. Group B soils typically have between 10 percent and 20 percent clay and 50 percent to 90 percent sand and have loamy sand or sandy loam textures. Some soils having loam, silt loam, silt, or sandy clay loam textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission, as transmission is typically somewhat restricted. Group C soils typically have between 20 percent and 40 percent clay and less than 50 percent sand and have loam, silt loam, sandy clay loam, clay loam, and sandy silt loam textures. Some soils having clay, silty clay, or sandy clay textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission, as water movement through the soil is restricted or very restricted. Group D soils typically have greater than 40 percent clay, less than 50 percent sand, and have clayey textures. All soils with a depth to water impermeable layer less than 20 inches and all soils with a water table within 24 inches of the surface are in this group, although some may have a dual classification, if they can be adequately drained. If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Throughout Monterey County, Hydrologic Soil Groups vary considerably. A site specific analysis is required to identify geology formations present at proposed OWTS locations. As shown in Figure 2-3d, highly infiltrative soils are typically located with the Salinas Valley River Basin and at the mouth of the Salinas River. Soils having a slow infiltration rate with high runoff potential are typically located in the upper elevations of the Monterey mountain ranges.
Local Agency Management Program For OWTS
Monterey County
Figure 2-3b
Soil Drainage Classes

LOCAL AGENCY OWTS MANAGEMENT PROGRAM
MONTEREY COUNTY
FIGURE 2-3b
Soil Drainage Classes
Local Agency Management Program For OWTS
Monterey County
Figure 2-3c
Soil Drainage Classes
Section 2: Project Area 20

Local Agency Management Program for OWTS
Monterey County
Figure 2-5
Geology Type

Legend
- County Boundary
Geology
- Igneous
- Metamorphic
- Sedimentary

Local Agency Management Program for OWTS
Monterey County
Figure 2-5
Geology Type

LOCAL AGENCY OWTS MANAGEMENT PROGRAM
MONTEREY COUNTY
Monterey County Local Agency Management Program for OWTS

Section 2: Project Area

Legend
- County Boundary
- 0%
- 1%
- 2%
- 3%
- 4%
- 5%
- 6%
- 7%
- 8%
- 9%
- 10%
- 11%
- 12%
- 13%
- 14%
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- 41%
- 42%
- 43%
- 44%
- 45%
- 46%
- 47%
- 48%
- 49%
- 50%

Local Agency Management Program For OWTS
Monterey County
Figure 2-6b
Average Ground Slope
Section 2: Project Area

LOCAL AGENCY OWTS MANAGEMENT PROGRAM
MONTEREY COUNTY
FIGURE 2-7b
Average Ground Slope (≤ 25%)
Figure 2-3d – Hydrologic Soil Group

Source: United States Department of Agriculture and Natural Resources Conservation Services

Figure 2-4 identifies soil erosion potential within Monterey County. As shown, the majority of the soils within the County are susceptible to high levels of water induced erosion. Erosion potential typically increases with increases in ground slope (refer to Figure 2-6a, 2-6b for average ground slopes throughout Monterey County).

Geology formations by type within Monterey County is identified in Figure 2-5. As shown, the majority of the County is comprised of sedimentary rock formations. Sedimentary rocks are formed from particles of sand, shells, pebbles, and other fragments of materials. Gradually, the sediment accumulates in layers over a long period of time and hardens into rock. Generally, sedimentary rock is fairly soft and may break apart or crumble easily. A site specific analysis is required to identify geology formations present at proposed OWTS locations.

The type and structure of the rock formation has a strong influence on groundwater conditions, which, in turn, affects the suitability and potential impacts of onsite wastewater disposal. In hard rock areas, such as granite, water movement is generally restricted to fracture zones, often referred to as the “secondary” permeability, which may offer little in the way of treatment and the potential for wastewater effects to be transported significant distances. Some rock types, such as sandstones, conglomerates, and limestones, have significant “primary” permeability, which provides for transmission of water through the interstices in the rock itself, where additional filtering and treatment can occur. Contacts between different rock types or layers are often avenues for the...
movement of subsurface waters; and springs and seeps are often found where fractures and geologic contacts come to the surface. Where the underlying rock lacks significant primary or secondary permeability, a water table may form near the ground surface that interferes with the suitability and operation of OWTS. Areas of steep slopes and weak rock types generally pose the greatest slope stability concerns and severe limitation for subsurface wastewater disposal.

Figures 2-6a through 2-7b identify average ground slopes within the County. Although soil survey information is readily available for Monterey County through USDA and NRCS data sources, onsite investigation to determine actual ground slope at the proposed OWTS location is needed. Due to the scale and mapping limitations of Figures 2-6a through 2-7b, small occurrences of average ground slope are not shown. Great differences in average ground slope can occur within short distances.

### 2.5 Water Resources

Monterey County is underlain with aquifers that provide a high quality water source essential for municipal supply and agriculture as well as every other type of land use. Groundwater is the principal source of water in the County, accounting for 95% of the total water use. As a result, Monterey County is dependent on its own local source of water and does not receive imported water from other regions in California. The County derives all of its total water supply from groundwater with minor exceptions. An estimated 95 percent of all water used in Monterey County is derived from groundwater wells.

The three major watersheds in Monterey County - Salinas River, Carmel River, and Pajaro River - all have significant constraints. Erosion associated with agriculture has deteriorated surface water quality in Salinas and Pajaro Valleys. High nitrate levels have been recorded in the Salinas Valley and in the North County areas. Groundwater overdraft resulting in seawater intrusion is a significant problem in the North County, which was the major driver to develop the extensive, and highly successful, agricultural recycled water program in this area.

There are four major groundwater basins within Monterey County: Salinas Valley, Cholame Valley, Lockwood Valley and Peach Tree Valley, shown in Figure 2-8. Most of these areas include sub-basins that help further define and localize groundwater issues, shown in Figure 2-9. Wells that are used to obtain produce groundwater are operated by a variety of different entities (cities, special assessment districts, investor owned utilities, mutual water companies and individual property owners) throughout the County.

Increases in groundwater pumping practices have resulted in localized over-drafting and have caused salt water intrusion in the Pajaro and Salinas River groundwater basins.
Water is necessary to support domestic, industrial and agricultural use demand, recreational uses, as well as sustaining fish and wildlife habitats. Five aquatic areas within Monterey County have been designated by the state as Areas of Special Biological Significance (“ASBS”) and therefore require special protection (Pacific Grove Marine Gardens Fish Refuge and Hopkins Marine Life Refuge; Point Lobos Ecological Preserve; Carmel Bay; Julia Pfeiffer Burns Underwater Park; and the ocean area surrounding the mouth of Salmon Creek).

Water quality problems are predominately related to waste emissions from point and nonpoint sources and geologic limitations. Typical point sources are domestic and industrial wastewater sites. Non-point sources are more difficult to address and may include animal husbandry operations, natural mineralization, automobile emissions, and urban runoff. Three principal problems affect the County’s groundwater basins (salt water intrusion, nitrate pollution, natural reactions). Suspected sources of nitrate pollution include wastewater discharges, agriculture return water, and OWTS overloading.

Seawater intrusion into groundwater sources is problematic near Pajaro and Castroville. Some private and water system wells in the Granite Ridge area of North County are experiencing a marked reduction in water capacity due to high Total Dissolved Solids ("TDS") concentrations. Presently, the County is exploring the possibility of grant funds and possible future projects to address the situation. Also, arsenic exceeding the maximum contaminant level ("MCL") in water systems is becoming an issue in North County and the El Toro planning area (which overlies the Corral de Tierra Area subbasin), particularly in light of the 2008 revised arsenic maximum contaminant level ("MCL") of 10 part per billion (formerly 50 ppb).

In South County, heavy metals such as cadmium and selenium are exceeding the MCL and are beginning to appear in new wells. High levels of secondary contaminants are also becoming more commonplace. Secondary contaminants are associated with aesthetic nuisances such as odor, taste, and staining (i.e. laundry and porcelain fixtures), and are not a health hazard, but are problematic at and above the established thresholds contained in the secondary MCLs specified by the State Water Board, Division of Drinking Water (formerly California Department of Public Health).

2.6 Wastewater Resources
Wastewater in Monterey County is managed typically by OWTS, and centralized wastewater treatment plants. The focus of this management program is OWTS, used primarily in rural areas where there is low density residential development and no available nearby centralized systems. Since groundwater quality is critical for continued operation of OWTS within the County, higher density development and urban areas are required to include wastewater treatment facilities to handle the higher density sewage loads by the policies set forth in Goal PS-4 of the 2010 Monterey County General Plan.

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Section 2: Project Area
The North County Coastal Land Use Plan ("LUP") includes Key Policy 3.2.1 which promotes centralized sewer or treatment facilities for areas designated for high density development concentration and infilling, and in areas which present significant public health hazards due to continued failure of OWTS which cannot be corrected by alternative OWTS. Key Policy 3.3.2 in the Carmel Area LUP specifies that the County should support wastewater disposal systems and the establishment of water quality management and monitoring programs intended to protect and maintain a high level of water quality in the ASBS and in the Carmel area's coastal streams. Policy 115 of the Del Monte Forest LUP states that development shall only be approved if it is first clearly demonstrated that there is adequate, long term public wastewater treatment capacity to serve such development. Although, the Big Sur Coast LUP does not contain specific policies that require centralized wastewater treatment facilities to serve higher density development, the area is subject to the Porter-Cologne Water Quality Control Act which authorizes the State Water Board, who delegates authority to Monterey County, to regulate all discharges that could affect the water quality and beneficial uses of waters of the State. Therefore, during the development review process the County is able to determine the most appropriate method of wastewater disposal and require that it be implemented.

Wastewater treatment and disposal operations in the County are managed by various entities using a variety of treatment technologies. As indicated earlier, most properties in the unincorporated rural areas utilize OWTS, which are regulated by the County. The majority of development in the more densely populated and incorporated areas of the County are served by regional or municipal treatment and collection systems, regulated by the Central Coast RWQCB.

Traditionally, the County has been responsible for regional wastewater treatment and collection systems through its County Sanitation Districts ("CSDs") and County Service Areas ("CSAs"). Recently, the County has sold some of the CSAs and CSDs to a private operator, the California-American Water Company. The County is continuing to pursue buyers for existing wastewater facilities under the jurisdiction of a CSD or CSA. Moving forward, the construction, operation and maintenance of all new wastewater treatment and collection systems to serve densely populated and incorporated areas of the County will be the responsibility of private service providers. The majority of properties in the rural areas of the County will continue to utilize OWTS.

2.6.1 Monterey Regional Water Pollution Control Agency

In 1972, Monterey Regional Water Pollution Control Agency ("MRWPCA") was formed to seek joint solutions to the wastewater treatment needs of its member entities: Del Rey Oaks, Monterey, Pacific Grove, Salinas, Sand City, Seaside, Boronda County Sanitation District, Castroville County Sanitation District, Moss Landing County Sanitation District, Fort Ord Military Reservation, Marina Coast Water District and the County of Monterey. MRWPCA is governed by a Board of Directors representing each of the jurisdictions that it serves. MRWPCA provides tertiary quality recycled water to 12,000 acres of prime West Coast farmland.
Farmland in northern Monterey County near Castroville food crop growers on the Monterey Peninsula through a partnership with the Monterey County Water Resources Agency—the Castroville Seawater Intrusion Project (CSIP). Since its inception in 1998, 76.3 billion gallons of recycled water have been applied to crops that include lettuce, celery, broccoli, cauliflower, strawberries, and artichokes. Each gallon of recycled water applied is one less gallon of groundwater that would have been extracted and one less gallon of seawater intrusion. CSIP reduces seawater intrusion by supplying about two-thirds of the water used to irrigate crops in the project area. The MRWPCA reports that more growers, about 3,500 acres, wish to annex into the CSIP system as soon as there is enough water for them. MRWPCA staff and CSIP growers regularly support other communities trying to develop water reuse for agriculture. This extensive and highly successful program allows area growers to curtail groundwater pumping which in turn has helped to mitigate the area wide seawater intrusion problem induced by over-pumping the groundwater basins. The urban areas served by the Regional Treatment Plant, and extent of irrigation with recycled water, are shown on Figure 2-128.

### 2.6.2 Carmel Area Wastewater District

Carmel Area Wastewater District ("CAWD") is owned, operated, and managed by the community via an elected board of directors. Like the majority of wastewater treatment facilities in California, CAWD is a Publicly Owned Treatment Works or POTW. CAWD...
provides wastewater treatment services within its service area boundary. Current wastewater flows to the plant are approximately 1.7 million gallons per day. CAWD provides tertiary treatment of its wastewater, and irrigates local golf courses with the recycled water produced.

2.7 Groundwater Recharge Areas within Monterey County
Recently, requirements for identifying and mapping locations where floodwaters may accommodate groundwater recharge were established in state flood legislation. In 2007, several bills were signed by then Governor Schwarzenegger which added to and amended state flood and land use management laws. Government Code Section 65302 (AB-162) requires that cities and counties review the land use, conservation, and safety elements of their general plan for the consideration of flood hazards, flooding, and floodplains to address flood risks (DWR, 2010). Cities and counties are now required to identify rivers, creeks, streams, flood corridors, riparian habitat and land that may accommodate floodstormwater runoff for purposes of groundwater recharge and stormwater management in the conservation element. The intent is to conserve areas used for groundwater recharge and stormwater management and to minimize urban development in these areas (DWR, 2010, p. 32).

Figure 2-9 identifies primary groundwater recharge areas within Monterey County. Recharge in these areas is typically associated with infiltration in river beds and from deep percolation of rainfall. OWTS proposed in these locations will be required to specifically consider the impacts that the proposed OWTS may have on the quality of underlying groundwater basins.

2.8 Primary Receiving Waters by Type
Impervious surfaces in urban areas, such as roofs, constructed hardscapes, and certain compacted soils result in urban runoff, which may contain pollutants such as sediment, oil and grease, pesticides and pathogens, such as those from improperly functioning OWTS. During the dry months of summer and fall, surface runoff is at a minimum and therefore, existing pollutants remain concentrated until the early parts of the rainy season when they are transported as surface and subsurface flows to downstream water features, and infiltrated into groundwater basins and recharge areas.

Figure 2-1 identifies surface drainage by receiving water type within the more populated urban areas of Monterey County. The type of receiving waters includes streams, rivers, wetlands, lakes, and ocean. This figure is included to assist OWTS owners, developers, and designers to better understand potential impacts that a malfunctioning or failing OWTS may have on nearby surface waters.
Local Agency Management Program For OWTS
Monterey County
Figure 2-11
Receiving Water By Type
SECTION 3: WATER QUALITY MONITORING

The purpose of this LAMP is to establish standards and policies for the proper installation, operation and maintenance of OWTS in order to protect water quality and public health. The water quality monitoring element is intended to track the impact of OWTS effluent on groundwater and surface water as well as the effectiveness of this LAMP in addressing those impacts over time.

Surface water is very limited and primarily stored in the form of reservoirs such as Nacimiento Reservoir and San Antonio Reservoir. The Salinas River is the largest river in Monterey County and all of the Central Coast of California, running 170 miles and draining 4,160 square miles. It flows north-northwest and drains the Salinas Valley. The Salinas River is a wildlife corridor, and provides the principle source of water from its reservoirs and tributaries to the farms and vineyards in the valley. Numerous other rivers are located in Monterey County, including the Nacimiento, Big Sur, Carmel, Pajaro, and San Antonio Rivers, as well as numerous other creeks.

There are a number of “blue-line” streams in the county. “Blue-line stream” means that a stream appears as a broken or solid blue line (or a purple line) on a USGS topographic map. In general, these creeks are ephemeral in nature and contain water for only a short period of time during and after the winter rain season. While some creeks flow year round, they are generally located in, or adjacent to, rural lands that have a very low density of OWTS in the watershed.

Figure 3-1 contains a map showing the configuration and location of the four primary groundwater basins in Monterey County: Salinas Valley, Cholame Valley, Lockwood Valley, Peach Tree Valley. The Salinas Valley Groundwater Basin has been separated into 10 hydrologically-linked subbasins, identified in Figure 3-2.

Because of the factors discussed above, the water quality monitoring element of the LAMP will focus on the groundwater resources of the county. More specifically, it will focus on those groundwater basins located beneath high percolation soils or areas with a large number or a high density of OWTS where the use of these systems could impact or is thought to have impacted groundwater quality.

The County will use data from available sources consistent with OWTS Policy Section 9.3.2 to assess groundwater quality. In addition to the water systems operated by the cities and special districts, a number of smaller public and water systems operate in Monterey County. Most of these smaller systems utilize groundwater exclusively and all are required to perform routine water quality monitoring as a condition of their Domestic Water Supply Permits. The EHB proposes to utilize this data, specifically, bacteria, total dissolved solids and nitrate results, to observe trends in groundwater quality as it relates to potential OWTS impacts.
All new domestic wells are already required to conduct water quality analysis pursuant to 2010 Monterey County General Plan, Policy PS-3.3. In addition, the EHB will require testing of existing water wells as a condition of OWTS permit issuance when a water well is located on the same property and within 250 feet of a proposed OWTS. Water quality testing shall include (1) nitrogen series (nitrate, nitrite, ammonia and total kjeldahl nitrogen); (2) total dissolved solids and (3) bacteriological constituents (total coliform, enterococcus and E. coli).

The groundwater quality monitoring information will be summarized and submitted to the Central Coast RWQCB on an annual basis on or before February 1st. An evaluation of the monitoring program and an assessment of whether water quality is being impacted by OWTS will be submitted by the EHB to the Central Coast RWQCB every 5 years. As necessary, the EHB will identify potential amendments to this LAMP that may be implemented to address impacts to groundwater from OWTS.
SECTION 4: REQUIREMENTS FOR EXISTING OWTS

4.1 Existing Functioning Onsite Wastewater Treatment Systems

Consistent with the criteria outlined in Tier 0 of the OWTS Policy, systems that are functioning properly will not be affected by this LAMP as long as they continue to function properly. Nevertheless, regular inspection and maintenance is necessary to ensure that an OWTS continues to operate satisfactorily and to extend the life of the system. OWTS that fail will be repaired consistent with the criteria outlined in Tier 4 of the OWTS Policy and County standards.

As part of education and outreach, the EHB will promote voluntary maintenance for conventional OWTS (see Section 8 of this LAMP). There will not be a requirement for routine maintenance; however, the EHB will implement a mandatory reporting program to require liquid waste haulers to provide a report for each onsite wastewater septic tank pumped in the County. Whenever an OWTS is serviced, the liquid waste hauler or other qualified professional must examine the tank to look for signs of deterioration, corrosion or evidence that the dispersal system is not functioning adequately. The liquid waste hauler must submit a written report to EHB on an approved form within 30 days of servicing an OWTS.

EHB must maintain these liquid waste hauler reports in a database, such as EnvisionConnect or Questys. If the report identifies an overt failure of either the tank or dispersal system, a notice will be generated and mailed to the property owner. Otherwise, the reports will be retained in accordance with the Monterey County’s record retention policy for future reference at time of OWTS replacement application or during EHB review of planning or construction permit applications from the Monterey County Resource Management Agency (RMA).

4.2 Failed Onsite Wastewater Treatment Systems

Evidence of a failed OWTS ranges from the most severe and obvious form of failure such as surfacing effluent, to the less obvious sign of very slow-draining plumbing in a structure.

Conditions that represent a threat to public health and safety and must be replaced regardless of operational status, include:

- Hollow (non-gravel filled seepage pits (also known as dry wells), seepage pits, and cesspools. Hollow seepage pits and cesspools are a significant threat to ground water and a physical safety threat due to the tendency to collapse. They shall be properly abandoned, repaired or replaced.

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Hollow seepage pits may be repaired by filling in the void space with EHB-approved rock or properly abandoned.

- Severely damaged or deteriorated tanks, bottomless tanks, or otherwise non-watertight tanks can allow surface and groundwater to infiltrate the tank, interfering with the separation of solid and liquid wastes and shall be replaced with one that meets the County and State standards.

- Any OWTS that has affected, or will affect, ground water or surface water to a degree that it makes it unfit for drinking or other uses, or is causing a human health or other public nuisance condition shall be modified or upgraded so as to abate its impact.

Upon discovery of a failing OWTS that has pooling effluent or discharges wastewater to the surface, and that is located within the setback distances to a public water supply well described in Table 5-5 of this LAMP, the EHB shall notify the owner of the public well or water intake and the California Department of Public Health as soon as practicable, but not later than 72 hours.

4.3 Onsite Wastewater Treatment System Minor and Emergency Repairs

No permit will be required to perform minor maintenance work such as replacing an existing pump with an equivalent new pump or the clearing of blockages. No permit will be required for minor repairs to a septic tank, such as patching of minor cracks in a septic tank that do not degrade structural integrity and do not cause wastewater to exfiltrate or groundwater is infiltrate, or to a dispersal field, such as a perforated pipe replacement of less than ten percent of a dispersal field length.

The requirement to obtain an OWTS permit specified by MCC, Chapter 15.20 shall not preclude the property owner from performing any temporary or other emergency repair work necessary to protect against an imminent threat to the owner’s or the public’s health or safety, provided that the property owner immediately thereafter notifies the EHB and applies for any required permit.

4.4 Onsite Wastewater Treatment System Major Repairs / Replacement / Expansions

Certain corrective measures shall be taken when an inspection finds a substandard OWTS or a component thereof that requires repair, replacement or expansion to meet current standards. Monterey County Code, Chapter 1.20, Enforcement, provides EHB authority to enforce compliance with this LAMP and OWTS permit regulations.

As with the installation of a new system, all repairs, replacements or expansions of an existing OWTS must be performed by a qualified professional and must comply as closely as practical with the standards in Monterey County Code, Chapter 15.20.
and this LAMP, and must be protective of human health and the environment. In cases of a failure that creates a health and safety hazard where effluent is discharging to the surface of the ground, repairs must be made immediately.

For repairs or replacements of existing OWTS, a qualified professional may apply for a variance to the requirements of Monterey County Code, Chapter 15.20, and this LAMP, for consideration by the Director. The variance request shall be submitted in writing and accompanied by the applicable fee and a report prepared by the qualified professional to evaluate if groundwater, surface water, or public health impacts could result from the requested variance. A repair or replacement system that cannot be considered for approval by variance may require supplemental treatment as necessary to ensure groundwater, surface water, or public health is protected. Expansions of an existing OWTS to accommodate new development shall meet the standards for new OWTS permits. A repair or replacement system that cannot meet the requirements of Monterey County Code, Chapter 15.20, and this LAMP, may require supplemental treatment as necessary to provide treatment equivalent to the adopted standards.

When an OWTS with less septic tank capacity or dispersal field area than is required by Section 5 of this LAMP is approved by variance, a deed restriction shall be recorded to the property, on a form approved by the EHB and at the property owner’s expense, to notify the current and future property owners that the OWTS does not meet the minimum OWTS standards for the structure it serves and that no building permit will be issued for a structure that would increase the estimated daily wastewater generation unless the OWTS was expanded or replaced to meet the minimum standards of this chapter.

4.4 Onsite Wastewater Treatment Systems in Degraded Basins

If the Central Coast RWQCB or EHB identifies a groundwater basin or subbasin in Monterey County where the use of OWTS is causing or contributing to exceedances of nitrate or pathogen MCLs or groundwater degradation, the County will develop an Advanced Groundwater Protection Management Program (“AGPMP”) in close consultation with and approved by the Central Coast RWQCB. The AGPMP shall provide the same level of protection as the Tier 3 standards in the OWTS Policy and should include: supplemental treatment for all new and replacement systems; mandatory, routine inspections and maintenance; connection to the public sewer; shallow groundwater monitoring; or other appropriate actions.

The County will require conformance with current standards, including supplemental treatment standards, to the greatest extent practicable. The requirements for existing systems will be consistent with Tier 4 of the OWTS Policy. Supplemental treatment standards will be equivalent to those contained in Tier 3. Variances from the prohibitions specified in sections 9.4.1 – 9.4.9 of the OWTS Policy are not allowed in areas covered by an AGPMP.
4.5 Onsite Wastewater Treatment System Evaluation

Failure of an existing OWTS component, either the septic tank or dispersal system, can be attributed to many causes. Septic tanks are known to corrode and degrade over time and dispersal systems are known to clog, whereas a properly cited and designed and maintained dispersal system OWTS can remain functional for decades. The EHB will require a performance evaluation prior to issuance of permits for OWTS repairs in accordance with Table 4-1.

Existing functioning OWTS that would otherwise be expected to continue to function properly may become over taxed when homes are remodeled or expanded in a manner that increases the sewage flow or changes the characteristics of the sewage generated.

The EHB will require a performance evaluation of an existing OWTS when a building remodel or building addition permit application is received in accordance with Table 4-1. A performance evaluation will not be required for reductions of habitable space, detached garages, decks, sheds, ground-mounted solar panels, or when a previous performance evaluation has been completed within a reasonable period of time and which indicates the system was operating in an acceptable manner at the time of the evaluation.

When a building remodel or building addition will increase the wastewater flow as determined by County Code, the OWTS shall be upgraded so that the wastewater generation anticipated with the new construction can be received and treated reliably. Examples of changes that would indicate an increased flow to the system include the addition of a bedroom(s) or for commercial systems, increased occupancy and/or fixture units population.

Additionally, improvements on a property that intrude upon the physical location of the OWTS or the designated expansion reserve area for the dispersal system would trigger the need for review and may require replacement or expansion of the OWTS to comply with County Code.

Any OWTS component that is deemed to be in unacceptable condition (failed) shall be replaced in accordance with the minimum standards of this LAMP prior to final inspection of the construction permit that prompted the requirement for a performance evaluation. During review of RMA-Planning and Building permit applications, EHB reviews the proposed project in conjunction with all existing structures or uses on the property, any existing EHB records of the existing system, the OWTS performance evaluation as well as any additional information/data provided by the applicant. If it is concluded by the EHB that there is no impact or that the existing system is adequate, no modification is required.

The EHB will also require a septic tank performance evaluation when a dispersal permit repair or replacement is proposed to demonstrate that the tank is still capable of...
functioning as designed so that solids will not pass through to the new dispersal system, regardless of the absorptive capacity of the proposed dispersal field. A performance evaluation of the existing dispersal field will not be required when the septic tank repair or replacement does not exceed minimum standards because the act of replacing the tank will improve upon the condition of the existing OWTS overall. However, if a septic tank or dispersal system repair or replacement exceeds the minimum capacity or absorptive capacity specified by this LAMP, a performance evaluation is required because it increases the development potential of the structure it serves.

When a performance evaluation deems a septic tank to be in unacceptable condition (failed), the OWTS permit application shall be amended to include both components. The failed septic tank shall be properly abandoned in place or destroyed and replaced, and the replacement dispersal field shall be installed, in accordance with the minimum standards of the LAMP.
Table 4-1. Performance Evaluation Required

<table>
<thead>
<tr>
<th>Permit Application Type</th>
<th>Is a performance evaluation required to be conducted by a qualified professional?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tank</td>
</tr>
<tr>
<td>Septic tank replacement to allow for a building remodel or addition</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Septic tank repair or replacement that does not exceed the minimum standards of Table 5-2, Minimum Capacity of Septic Tanks</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Dispersal system replacement to allow for building remodel or addition</td>
<td>Yes</td>
</tr>
<tr>
<td>Dispersal system repair or replacement that does not exceed the minimum absorptive capacity as calculated using Tables 5-1 and Tables 5-3 or 5-4 standards of Section 5.8, Dispersal Systems</td>
<td>Yes</td>
</tr>
<tr>
<td>Building remodel or addition proposing additional bedrooms (provided the minimum lot size requirements specified by Table 5-1 of this LAMP can be met) or that will increase wastewater generation</td>
<td>Yes</td>
</tr>
<tr>
<td>Building remodel or addition proposing to increase the habitable area of a structure by 200 square feet or more</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4.6 Onsite Wastewater Treatment System Abandonment and Demolition Standards

Unless properly abandoned, an OWTS that is no longer used can represent a safety hazard. The top and lids of a septic tank or the cement cover of a hollow seepage pit tend to deteriorate over time and may collapse should a vehicle drive or an individual walk over it leading to a serious injury or death. Therefore, the EHB makes it a priority to
ensure that these structures are properly demolished to minimize the risk of prevent such accidents.

An existing OWTS or a portion thereof shall be properly abandoned or demolished, under the following conditions:

- Upon the discovery of a hollow seepage pit or cesspool
- When the structure is connected to the public sewer or
- When the structure served by the OWTS is demolished unless the owner demonstrates their intention to use the system again within a reasonable period of time as approved by the EHB.

The demolition standards for a septic tank include:

- The tank or pit must be pumped to remove all contents.
- A tank may be removed entirely or
- If left in place, the bottom shall be punctured or cracked to allow for drainage and the shell filled with inert material such as clean soil, sand, pea gravel, cement etc.

Standards for abandoning the dispersal field include:

- Leach fields and seepage pits composed of gravel and pipe may be abandoned in place.
- If hollow chambers were used, the chambers must be removed and the trench backfilled. Hollow leaching chambers may remain in place with EHB approval.

### 4.6.1 Option to use Septic Tank/Leach Field as On-Site Rain Water Cistern

Under the scenario where an OWTS is no longer needed due to the connection of the property to a public sewer system, the County may allow the Owner to convert the on-site septic tank into a rain water or gray water cistern. Currently, the San Luis Obispo County Department of Public Works has developed a program for septic tank conversions for such septic tanks to be abandoned. Information can be found at the following website:


The Property Owner may propose to re-purpose their on-site septic tank/leach field system for rain water or gray water capture/reuse, and shall propose a plan with timeline for construction for review and approval by EHB.

### 4.7 Advanced Protection Management Plan

The OWTS Policy stipulates that existing, new and replacement OWTS that are located near a water body that has been listed as impaired due to Nitrogen or pathogens pursuant to Section 303(d) of the Clean Water Act may be addressed by a Total Monterey County Local Agency Management Program for OWTS – DRAFT Section 4: Requirements for Existing OWTS
Maximum Daily Load ("TMDL") and its implementation program, by special provisions contained in a LAMP or by the specific requirements of Tier 3.

If a water body in the County is designated by the Central Coast RWQCB as “impaired” or significantly degraded as a result of the use of OWTS, the County will develop an Advanced Protection Management Program ("APMP") in accordance with the established TMDL. In the absence of an approved TMDL, the APMP will be developed in close consultation with the Central Coast RWQCB and may include, but will not be limited to, requirements for supplemental treatment for existing systems and mandatory, routine inspections as determined by the Central Coast RWQCB in order to be consistent with the OWTS Policy. In the absence of a TMDL or an APMP approved by the Central Coast RWQCB, the provisions of Tier 3 of the OWTS Policy shall apply to OWTS adjacent to water body segments listed in Attachment 2 of the OWTS Policy.
SECTION 5: REQUIREMENTS FOR NEW OWTS

5.1 Development Review Processes
EBH review of OWTS occurs on two levels. An initial review to verify OWTS feasibility shall occur as part of the discretionary process for proposals to create new lots with the County's RMA - Planning Department. A second, more detailed review would happen when an application to construct an OWTS is submitted for both a new OWTS on an existing lot of record, or a newly created lot. The review of the application and the issuance of a permit are ministerial.

EBH staff interact with the RMA - Planning Department in the discretionary review process of applications for land use entitlements. The role of EHB is to review project applications within the unincorporated portions of the County to ensure conformity with State and local regulations and policies enforced by the EHB as they relate to projects involving retail food, recreational health, vector control, solid waste, drinking water and for purposes of this LAMP, sewage or wastewater dispersal.

For subdivision and other discretionary land use permit applications a determination must be made as to whether adequate water and sewer services are available. If public services are available, the EHB will recommend that as a condition of project approval, the project be required to connect to the public water and/or sewer system. For those projects where public services are not available and a private water system and/or use of an OWTS is proposed, the EHB will review well and soil test data to confirm their feasibility for the proposed project. Presence of existing groundwater impacts and/or existing groundwater quality will also be considered as part of EHB's review of the proposed project.

If the EHB determines that the use of an OWTS is feasible, the EHB will recommend as a condition of project approval. A condition of approval will be added when additional documentation is required prior to OWTS construction permit issuance, such as a slope cross-section report or evidence that the Central Coast RWQCB has assigned Waste Discharge Requirements for the project that the applicant will be required to submit an OWTS construction permit application to EHB for a permit to construct or modify an OWTS prior to issuance of the construction permit for the structure it will serve. The site plan submitted with applications for new OWTS on an undeveloped property shall include an aerial image overlay to facilitate site evaluation.

OWTS feasibility is currently determined by reviewing the proposed site configuration, the preliminary engineering and layout of the system to ensure that adequate space for both the primary field as well as the future expansion area is available, and that setbacks from watercourses and steep slopes are met. Additional site evaluation requirements are proposed with this LAMP and are intended to be equally protective of water quality and public health, as the standards set forth in Tier 1 of the...
OWTS Policy. Separate site evaluation requirements will exist for new OWTS and for replacements or expansions of existing OWTS. All OWTS permits will require a deep boring (refer to Section 5.9) in order to define soil strata, mottling and the presence or absence of groundwater or bedrock relative to the bottom of the dispersal field. Subdivisions and new OWTS on vacant, existing lots of record will necessitate three percolation tests in the area of the proposed dispersal field to determine if the soils are suitable for long-term wastewater dispersal. Staff will conduct a site visit to confirm the accuracy of the map and the location of any limiting features of the property.

If this review finds that the proposed project site is unsuitable for wastewater treatment and disposal OWTS, even with implementation of alternative OWTS treatment methods, then the project cannot move forward until a suitable location on site is identified. Alternatively, an applicant could pursue a connection to a public sewer system.

Amendments to the Monterey County Code to conform to these requirements will be presented to the Board of Supervisors for adoption within a year of adoption of the LAMP, but in the interim period following adoption of the LAMP, the requirements of this LAMP and County Code shall control.

5.2 Minimum Lot Size Requirements
Monterey County Code Section 15.20.060.E requires a minimum lot size for issuance of a septic tank system permit and will be proposed to be amended to include the new requirements of this LAMP as follows: “On new divisions of land, and domestic water is served by a water system of two or more connections, the lot size shall not be less than one gross acre, provided the lot size criteria (in addition to other siting criteria in this Section) in Table 5-1 are met.” (Monterey County Code Section, 15.20.060.E.1.a.)

Table 5-1 also applies to existing lots of record, when an existing, permitted dwelling unit requests to enlarge a dwelling with an additional bedroom(s). In the event the minimum lot size cannot be met, a qualified professional shall prepare a technical report at the property owner’s expense, which verifies by calculation of nitrogen loading and wastewater flows, that total nitrogen loading does not exceed 40 grams per gross acre per day. The qualified professional shall propose OWTS expansion criteria to handle additional wastewater loading that meet the standards of this LAMP, including but not limited to incorporating supplemental treatment with denitrification.

EHB does not intend to preclude development on lots of record that are less than one gross acre. For undeveloped lots of record that are less than one gross acre, a qualified professional shall prepare a technical report at the property owner’s expense, which determines the proportionate quantity of nitrogen loading allowable based on acreage, and verifies that the
proposed OWTS, which may include an Alternative OWTS supplemental treatment system and/or dispersal system, will not exceed that determined value.

Table 5-1. Minimum Lot Size for New Development of and Additions to Single Family Homes

<table>
<thead>
<tr>
<th># Bedrooms</th>
<th>Estimated Daily Wastewater Generation (gallons)</th>
<th>Estimated Nitrogen Loading (grams per day)</th>
<th>Minimum Lot Size when a Water Well Does Not Exist on Site(^a)</th>
<th>Minimum Lot Size when a Water Well Exists On Site(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>150</td>
<td>20 g</td>
<td>1 acre</td>
<td>2.5 acres</td>
</tr>
<tr>
<td>2</td>
<td>225</td>
<td>30 g</td>
<td>1 acre</td>
<td>2.75 acres</td>
</tr>
<tr>
<td>3 or Less</td>
<td>300</td>
<td>40 g</td>
<td>1 acre</td>
<td>2.25 acres</td>
</tr>
<tr>
<td>4</td>
<td>375</td>
<td>50 g</td>
<td>1.25 acres</td>
<td>3.0 acres</td>
</tr>
<tr>
<td>5</td>
<td>450</td>
<td>60 g</td>
<td>1.5 acres</td>
<td>3.25 acres</td>
</tr>
<tr>
<td>6</td>
<td>525(^b)</td>
<td>70 g(^a)</td>
<td>1.75 acres(^a)</td>
<td>3.25 acres(^a)</td>
</tr>
</tbody>
</table>

\(^a\) Add 75 gallons of wastewater per additional bedroom  
\(^b\) Add 10g Nitrogen per additional bedroom  
\(^a\) Add 0.25 acres per additional bedroom  
\(^a\) When a well is either proposed or already exists on the property. This standard shall not be construed to conflict with or supersede the minimum lot sizes specified by Table PS-1 (footnote 5) and PS-2 of the 2010 Monterey County General Plan

5.3 General Policy Recommendations/Provisions

Any structure, regardless of use, that produces wastewater, shall have adequate wastewater treatment and dispersal. When connecting to the public sewer is not possible, adequate treatment and dispersal shall be accomplished by means of an approved OWTS.

Chemical toilets are acceptable for temporary use up to 30 days per calendar year during for special events up to 30 calendar days per year or for Seasonal open-space businesses such as pumpkin patches or tree lots do not have a limitation on the number of operating days with chemical toilets. Hand washing facilities with soap, water and paper towels are always recommend but shall be provided when food is available for sale of consumption. They Chemical toilets are not acceptable as a permanent method of wastewater management.

Composting or incinerating toilets are not currently considered a viable option for sewage management for sites that preclude the use of a conventional or alternative OWTS because a gray water system intended to handle wastewater from a lavatory or shower would be restricted by similar site constraints as would a conventional OWTS.

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In the interest of public health, vault toilets (watertight, lined privvys) maintained by a public agency may be considered for use to serve remote, toilet-only structures when there is no existing infrastructure to supply potable water and it would be prohibitive to construct, such as trailheads on public land or remote military operations. Vault toilets may also be considered for use on private land when recycled water irrigation is in place and there is no existing potable water infrastructure because installation of potable water distribution system would increase potential for cross-connection between the potable and recycled water systems. All vault toilets that are installed on private land will be required to maintain a service contract with a licensed liquid waste hauler and obtain an annual operating permit from the EHB.

Since the Basin Plan was originally adopted on March 14, 1975, significant strides have been made towards reducing indoor potable water demands. It is noted that the Regional Water Board’s Central Coast RWQCB considers 375 gpd as a conservative standard estimate of domestic wastewater from a 3-bedroom home. The County’s experience is that such flows are more on the order of 300 gpd per 3-bedroom home or equivalent dwelling unit. Regardless of which value is used, the organic loading for the purposes of this LAMP will be the same. The minimum sizing requirements for septic tank volume in Table 5-2 of this LAMP, adequately address the hydraulic sizing requirements for septic tanks. For commercial and industrial, institutional and multi-family units that exceed the typical demand of a residential home, careful consideration must be given to the estimated loading, hydraulically and organically, for the proposed unit to be served by an OWTS. The qualified professional responsible for the design of such an OWTS must make reasonable estimates of both flow and organic waste strength, and in particular a calculation of the anticipated nitrogen loading from the proposed OWTS treatment/disposal system.

Wastewater flow from multi-family and commercial structures will be determined by peak design flow as listed in the most recent edition of the California Plumbing Code (“CPC”), the U.S. Environmental Protection Agency’s Onsite Wastewater Treatment Systems Manual or other sources acceptable to the EHB.

The provisions of this LAMP and Monterey County Code, Chapter 15.20, apply to wastewater flows of 10,000 gpd or less. Projects with flows calculated to exceed 10,000 gpd, from non-domestic wastewater streams or from recreational vehicle/mobile homes, will be regulated by the Central Coast RWQCB for review and approval.

It is the intent of the EHB to maintain an open dialogue with the Central Coast RWQCB and to consult with them when necessary to ensure that this LAMP is implemented in a manner consistent with the goals and objectives of the OWTS Policy.
5.4 OWTS Component Access and Protection of OWTS Future Dispersal Area

All OWTS require regular maintenance to ensure that they are operating as designed and to prolong the useful life of the system. This is especially true for alternative OWTS that utilize supplemental treatment. In order to facilitate inspection and maintenance, OWTS components and appurtenances, such as distribution boxes or dispersal field monitoring ports, must be accessible through watertight risers brought to or within 6 inches of finished grade.

Currently the primary dispersal field must be constructed and an expansion reserve area has to be set aside for future use; 100 percent expansion reserve area for lots created prior to June 26, 1981 and 200 percent expansion reserve area for lots created after June 26, 1981. Upon approval of this LAMP a primary and secondary expansion reserve area must be installed at initial OWTS construction, and separated by a diversion valve. EHB recommends that the diversion valve be and rotated every 9 to 12 months to provide an opportunity for the other dispersal field to rest. Development in remaining designated expansion area that would preclude its future use as a dispersal field will not be allowed. For lots created after June 26, 1981, development in the remaining reserve area designated for a future, tertiary dispersal field (formerly the second 100 percent expansion reserve area) that would preclude its future use as a dispersal field area will not be allowed. EHB may require that the tertiary dispersal field be, remaining expansion area may be required to be installed at initial construction if the area will may be inaccessible upon site build-out.

5.5 Prohibitions

The following prohibitions specified in Section 9.4 in Tier 2 of the OWTS Policy will become effective upon adoption of this LAMP, and amendments to Chapter 15.20 of the Monterey County Code will be proposed to reflect these prohibitions:

- Cesspools or hollow seepage pits of any kind or size.
- OWTS receiving a projected flow over 10,000 gpd.
- OWTS that utilize any form of effluent disposal that discharges on or above the post installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond.
- Installation of OWTS on slopes greater than 30 percent without a slope stability report approved by a qualified professional and a variance issued by the local agency having authority, authorizing construction at that location.
- Decreased leaching area for International Association of Plumbing and Mechanical Officials ("IAPMO") certified dispersal systems using a multiplier less than 0.70.

Commented [NF5]: Cecile: Water softeners and treatment systems. Allow POU and POE to discharge directly to OWTS dispersal field (bypass tank) but specify that Centralized treatment must have a separate discharge trench? If so, add setback to water treatment system wastewater disposal trench and additional absorptive capacity requirement for dispersal system.

Commented [NF6]: Zoning Ordinance specifies 25% slope. Email to Jacque/Brandon 4/25/17

Monterey County Local Agency Management Program for OWTS – DRAFT 05/13/09/14/16
Section 12: References
• OWTS utilizing supplemental treatment without requirements for periodic
monitoring or inspections.

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

• Separation of the bottom of dispersal system to groundwater less than two feet, and no less than 10 feet of separation for rock-filled seepage pits preceded by supplemental treatment except for seepage pits, which shall not be less than ten feet.

• Issuance of a No conventional OWTS permit will be issued where the soil formation beneath the proposed lot contains continuous cracks, channels, or fractures when a water well is located less than 250 feet from any portion of the OWTS.

• Installation of new or replacement OWTS where public sewer is available. The public sewer may be considered not available under one or more of the following circumstances:

  1. The public sewer or any building or exterior drainage facility connected thereto main or lateral is located more than 200-300 feet from any proposed, existing building structure that necessitates wastewater disposal or exterior drainage facility on any lot or premises that abuts and is served by such public sewer;

  2. The public sewer purveyor refuses to permit such connection and/or annexation into the service area is not supported by the Monterey County Local Agency Formation Commission;

  3. The owner or lawful possessor of the proposed/existing structure that necessitates wastewater disposal is unable to obtain any necessary easement for the connection pipe;

  4. This provision does not apply to For replacement OWTS only, where the connection fees and construction cost are greater than twice the total cost of the replacement OWTS, either conventional or alternative OWTS as deemed necessary to comply with the minimum standards of this LAMP and MCC, Chapter 15.20, provided the standards of this LAMP can be met and the County determines that the discharge from the OWTS will not affect groundwater or surface water to a degree that makes it unfit for drinking or other uses.

5.6 Professional Qualifications
To ensure performance that is consistent with the goals and objectives of this LAMP, OWTS must be sited, designed and constructed properly. Once an OWTS is placed into operation, regular inspections and maintenance are necessary to keep the system functioning as designed and to prolong its useful life. Therefore, specific qualifications and licenses are required in order to design, construct, maintain and/or repair an OWTS in Monterey County. Design, construction, maintenance and repair of an OWTS shall be conducted by a qualified
professional duly registered in the State of California or service provider, who is retained by the owner at the owner’s cost, and shall be made in accordance with the following requirements:

- **Qualified consultants** conduct site evaluations, soil investigations and percolation testing. A qualified consultant shall be a registered California professional, including Civil Engineer, Professional Geologist, or Certified Engineering Geologist or other qualified professional as approved by the Monterey County Director of Health EHB.

- **Qualified designers** design an OWTS using information prepared by a Qualified Consultant. A qualified designer shall be a California Registered Civil Professional Engineer, Registered Environmental Health Specialist, or other qualified professional as approved by the Monterey County Director of Health EHB.

- **Qualified installers** construct, modify, repair, abandon, or demolish an OWTS. A qualified installer shall be a contractor duly licensed by the California State Contractor’s Board to install OWTS, such as an A, C-36, C-42 or B license holder (provided the B-license holder is installing the OWTS in conjunction with a new construction project as appropriate under applicable State contractor’s law). An owner/builder may abandon or demolish an OWTS septic tank under permit from the EHB without a contractor’s license.

- **Qualified service providers** operate, maintain and service alternative OWTS. A qualified service provider for an alternative OWTS shall be an individual or company certified by an alternative OWTS manufacturer to conduct operation, maintenance and service activities specific to the subject OWTS, or other qualified service provider professional as approved by the Monterey County Director of Health EHB.

### 5.7 Tank Requirements

The construction standards for septic and treatment tanks must be consistent with standards contained in the State regulations. As required in the California Plumbing Code, all tanks are to be watertight and constructed of durable, corrosion resistant material such as reinforced concrete or fiberglass, and must conform to IAPMO, National Sanitation Foundation (“NSF”) or American Society for Testing and Materials (“ASTM”) standards. All tanks shall be capable of being pumped out completely without the need to backfill with water to maintain structural integrity.

All new, repair and replacement septic tanks shall conform to the standards in Table 5-2. Septic tanks must have a minimum of two compartments and each compartment shall be accessible through a manway or port that is a minimum 20 inches in diameter.

<table>
<thead>
<tr>
<th>Number of Bedrooms</th>
<th>Septic Tank Capacity</th>
<th>Septic Tank Capacity (Kitchen Garbage Grinder Installed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or 2 Bedrooms</td>
<td>1,000 gallons</td>
<td>1,500 gallons</td>
</tr>
</tbody>
</table>

Monterey County Local Agency Management Program for OWTS – DRAFT 05/13/09/14/16
Section 12: References
<table>
<thead>
<tr>
<th>3 or 4 Bedrooms</th>
<th>1,500 gallons</th>
<th>2,000 gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or 6 Bedrooms</td>
<td>2,000 gallons</td>
<td>2,500 gallons</td>
</tr>
<tr>
<td>Each Additional Bedroom</td>
<td>Add 250 gallons</td>
<td>Add 250 gallons</td>
</tr>
<tr>
<td>Each Additional Garbage Grinder</td>
<td></td>
<td>Add 500 gallons</td>
</tr>
</tbody>
</table>

The use of garbage disposal units is discouraged because they (1) contribute substantial quantities of detrimental solids to the wastewater load, increasing the rate of sludge and scum accumulation in the septic tank; (2) result in a greater need for and frequency of septage removal; and (3) result in higher amounts of solids and Bio-chemical Oxygen Demand ("BOD") discharged to the dispersal field, increasing the potential for soil clogging and system failure. An additional 500 gallons of septic tank capacity is required when a garbage grinder is installed in the structure served by the OWTS.

In general, all tanks should be buried as shallow as practicable. Septic tanks should be installed no deeper than six inches below finished grade. If it is demonstrated that a septic tank must be placed deeper than six inches below finish grade, each compartment shall be fitted with watertight risers that extend to within six inches of finish grade. Owners shall maintain access openings so as to be readily accessible for observation, maintenance and pumping.

When it is necessary to extend septic tank risers to finished grade, corrosion resistant, tamper resistant fasteners shall be used to secure the lid to the riser.

The septic tank must be designed with adequate separation from structures, patios and decks so that both the inlet and outlet compartments of the septic tank are accessible for inspection, servicing and maintenance.

If the OWTS design calls for placing a tank beneath areas subject to vehicular traffic such as a driveway, the tank must be rated to withstand such conditions or the installation shall be engineered to support the additional weight with risers extending to finished grade. The tank lids and risers used in such installations must be traffic rated as well.

### 5.7.1 Pump Chambers

When a pump chamber or tank is utilized to deliver effluent to the dispersal field, the tank shall meet industry accepted standards. Some Alternative OWTS dispersal systems, such as a mounds or drip dispersal, require smaller doses of effluent while most conventional leachfields can accept larger volumes at once. Dosing a large volume of effluent to the dispersal field just one or two times per day provides an opportunity for the field to rest in a well-drained state prior to the next dose and may help to limit constant saturation. Due to variable uses of pump chambers, the capacity shall be at least 300 gallons and specified by the qualified professional so that the tank will have surge capacity equal to at least 200% of the estimated daily design flow, have twice the capacity equal to six hours of peak flow or 300 gallons, whichever is greater, and be designed to maintain half of the required tank capacity as freeboard above the high float assembly. All pump chambers shall be equipped with an audible
and visible high water alarm to alert when the high-water level in a tank is reached. Electrical connection should be made outside of the dosing tank and riser in a weather proof box. An electrical permit shall be obtained from the Monterey County Resource Management Agency – Building Services Department prior to commencing construction.

Though not a recommended practice, if a septic tank has sewage inflow from a pumped source (e.g. lift station, ejection basin) the minimum retention time shall be 4 times the daily peak design flow specified by the qualified designer to ensure adequate separation of solid and liquid wastes. Any pump chamber preceding a septic tank (e.g. lift station, ejection basin) must be capable of handling solids of a minimum size, as specified by Section 710.3 of the California Plumbing Code, and macerating (grinder) pumps shall not be allowed. Grinding sewage into a slurry of small particles has the potential to affect normal settling and digestive processes. When pumping of raw sewage cannot be avoided, the qualified professional shall incorporate additional design measures to mitigate negative effects, primarily surging and turbulence, on overall treatment system performance. Options that may be considered include:

a) Pumping to gravity sewer some minimum distance upstream of the septic tank instead of directly into the septic tank.

b) Install an inlet baffle in the septic tank to deflect the inlet discharge.

c) Install more septic tank capacity or a surge tank prior to the septic tank.

d) Install multiple septic tanks in series or compartmented septic tanks.

5.7.12 Watertight Tank Testing

Watertight, structurally sound tanks are essential to the performance of OWTS. Wastewater that leaks out of a septic tank or pump chamber that is not watertight may not be adequately treated and can contaminate ground and surface waters. In addition, infiltration of the ground water into a leaky tank can hydraulically overload the dispersal system. Furthermore, infiltration can cause the tank contents to mix, disturbing the settling of solids and allowing them to be carried out to the dispersal field, resulting in clogging and premature dispersal system failure. In order to ensure that a tank will adequately perform as intended, field testing of the tank for watertightness is essential. New or replacement septic tanks and pump chambers shall be tested for watertightness using either a vacuum test or water test prior to backfilling the tank with soil. As a condition of permit approval, EHB will determine if EHB staff will be required to witness the of testing. Upon completion of the testing, a qualified professional shall submit a Watertight Tank Certification Form to the EHB prior to or concurrent with final inspection of the OWTS.

5.8 Dispersal Systems

The use of shallow leachfields is the preferred method of dispersal because the septic tank effluent is passively distributed by gravity and discharged at a shallow soil depth. Rock-filled seepage pits may be used for new and repair/replacement/expansion.
OWTS on existing lots of record but may not be used to demonstrate OWTS feasibility for new subdivisions. Prior to EHB approval of a rock-filled seepage pit system, the qualified professional shall determine that the site conditions are not conducive to the use of leach fields or other shallow dispersal system and prepare a report for review and acceptance by EHB. As specified by Section 5.11.4, supplemental treatment shall be installed to reduce total nitrogen (TN), biochemical oxygen demand (BOD) BOD and total suspended solids (TSS) prior to dispersal.

The minimum absorptive area required for a conventional dispersal leach fields shall be calculated using the wastewater flow volumes specified by Table 5-1 of this LAMP in conjunction with Table 5-3, Application Rates as Determined from Stabilized Percolation Rate, and/or Table 5-4, Design Soil Application Rates.

**Table 5-3. Application Rate as Determined from Stabilized Percolation Rates**

*Source: Modified version of Table 3, OWTS Policy, Tier 1*

<table>
<thead>
<tr>
<th>Percolation Rate (minutes per inch)</th>
<th>Application Rate (gallons per day per square foot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 (Requires Alternative OWTS with Supplemental Treatment)</td>
<td>1.2</td>
</tr>
<tr>
<td>1 – 5</td>
<td>1.2</td>
</tr>
<tr>
<td>6 – 10</td>
<td>0.8</td>
</tr>
<tr>
<td>11 – 17</td>
<td>0.7</td>
</tr>
<tr>
<td>18 – 24</td>
<td>0.6</td>
</tr>
<tr>
<td>25 – 33</td>
<td>0.5</td>
</tr>
<tr>
<td>34 – 42</td>
<td>0.4</td>
</tr>
<tr>
<td>43 – 51</td>
<td>0.3</td>
</tr>
<tr>
<td>52 – 60</td>
<td>0.2</td>
</tr>
<tr>
<td>61 – 66</td>
<td>0.18</td>
</tr>
<tr>
<td>67 – 72</td>
<td>0.16</td>
</tr>
<tr>
<td>73 – 78</td>
<td>0.14</td>
</tr>
<tr>
<td>79 – 84</td>
<td>0.12</td>
</tr>
<tr>
<td>85 – 90</td>
<td>0.1</td>
</tr>
<tr>
<td>&gt; 90 – 120L (Requires Alternative OWTS with Supplemental Treatment)</td>
<td>0.1</td>
</tr>
</tbody>
</table>

When percolation testing yields very slow percolation rates slower than 90 MPI, the qualified professional shall incorporate a Alternative OWTS with supplemental treatment to further reduce BOD and TSS beyond primary treated effluent to slow down the development of biomat and extend the life of the disposal field; nitrogen reduction is recommended not required. No OWTS permits shall be issued when the percolation rate is slower than 120 MPI.
Table 5-4. Application Rate as Determined from Soil Texture, Structure and Grade
(Source: OWTS Policy Tier 1 Table 4, based on US EPA Onsite Wastewater Treatment Systems Manual, February 2002)

<table>
<thead>
<tr>
<th>Soil Texture (per the USDA Soil Classification System)</th>
<th>Soil Structure Shape</th>
<th>Grade</th>
<th>Maximum Soil Application Rate (gallons per day per square foot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse Sand, Sand, Loamy Coarse Sand, Loamy Sand</td>
<td>Single grain</td>
<td>Structureless</td>
<td>0.8</td>
</tr>
<tr>
<td>Fine Sand, Very Fine Sand, Loamy Fine Sand, Loamy Very Fine Sand</td>
<td>Single grain</td>
<td>Structureless</td>
<td>0.4</td>
</tr>
<tr>
<td>Coarse Sandy Loam, Sandy Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Platy</td>
<td>Weak</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate, Strong</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate, Strong</td>
<td>0.6</td>
</tr>
<tr>
<td>Fine Sandy Loam, very fine Sandy Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate, Strong</td>
<td>0.4</td>
</tr>
<tr>
<td>Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate, Strong</td>
<td>0.6</td>
</tr>
<tr>
<td>Silt Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>0.4</td>
</tr>
<tr>
<td>Sandy Clay Loam, Clay Loam, Silty Clay Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate, Strong</td>
<td>0.4</td>
</tr>
<tr>
<td>Sandy Clay, Clay, or Silty Clay</td>
<td>Massive</td>
<td>Structureless</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>Prohibited</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moderate, Strong</td>
<td>0.2</td>
</tr>
</tbody>
</table>
5.9 Site/Soil Evaluation

A general site evaluation is to be completed that includes a geologic report that describes the soil conditions, depth to groundwater or bedrock, and a slope stability study if the dispersal field is proposed to be installed on a slope greater than 30 percent.

For subdivisions and new OWTS on vacant lots of record, and for existing OWTS that have a history of prior problems, such as evidence of surfacing effluent, frequent seasonal tank pump outs, or other signs of failure or poor performance, the following requirements apply:

- A soil evaluation is required in both the area designated as the primary dispersal area and the expansion area(s).
- Testing shall include one deep groundwater monitoring boring or test pit, that extends sufficiently beyond the proposed final depth of the dispersal field to demonstrate compliance with Table 5-2 for Conventional OWTS or Table 5-8 for Alternative OWTS, and percolation testing within the proposed dispersal area(s). It should be noted that neither Alternative OWTS or rock-filled seepage pits shall be used to demonstrate OWTS feasibility for new subdivisions. Community dispersal systems shall demonstrate that at least 15 feet of vertical separation will exist between the bottom of the proposed dispersal system and groundwater, regardless of the minimum separation specified in Table 5-2 or 5-8. Testing shall include one deep soil profile test, which shall extend at least 10 feet deeper than the bottom of the proposed dispersal system or 15 feet deeper than the bottom of the proposed dispersal system for a community dispersal system, and percolation testing within the proposed dispersal area(s). Results from the soil evaluation and percolation testing are used to determine the appropriate application rate as specified by Table 5-3 of this LAMP.
- Soil profile analyses may be reduced at the discretion of the EHB if conformity to a given soil type can be established to the satisfaction of the EHB. The report submitted shall demonstrate the feasibility of the proposed lot design and density.
- Since soil moisture and groundwater do not always immediately flow into a test boring, EHB requires a minimum of 72 hours to pass before an accurate groundwater measurement is taken. This time requirement may be reduced to as little as 24 hours, if recommended by the qualified professional and approved by EHB. The qualified professional and the property owner maintain full responsibility for protecting the public from any hazards related to the test borings. It is recommended that all test borings that encounter groundwater be converted to observation wells so the groundwater conditions can be monitored over time. Such conversion of soil borings to observation wells will be required as a permit condition for Alternative OWTS.
- All borings and percolation test locations shall be reasonably accurate and field measured/verified, and plotted on the submitted site plan which shall be to scale.

Because the septic tank effluent is discharged at a shallow soil depth, the use of leach fields is the preferred method of dispersal. Seepage pits may be used but only when it has been determined by the qualified professional that the site conditions are not conducive to the use of leach fields.

Commented [NF7]: Can we build monitoring wells constructed for OWTS into the well ordinance; making them exempt from a separate permit and/or fees?

Commented [NF8]: Moved to be first paragraph of this section
For repairs, replacements and expansions of an existing OWTS that does not have a history of prior problems, such as evidence of surface effluent, frequent seasonal tank pump outs, or other signs of failure or poor performance, the following requirements apply:

- A minimum of one deep soil profile test is required within the proposed dispersal area.
- **Testing shall include a groundwater monitoring boring or test pit that extends sufficiently at least 10 feet beyond the proposed final depth of the dispersal field to demonstrate compliance with Table 5-2 for Conventional OWTS or Table 5-8 for Alternative OWTS.** Community dispersal systems shall demonstrate that at least or fifteen (15) feet deeper of vertical separation will exist between the bottom of the proposed dispersal system for a community dispersal system and groundwater, regardless of the percolation rate, and percolation testing within the proposed dispersal area(s). Percolation testing is recommended but not required. When percolation testing will not be completed, soil evaluation borings or testing shall be conducted in a manner to preserve the structure and grade of the native soil so that it can be evaluated by the qualified professional.
- Results from the soil evaluation are used to determine the appropriate soil application rate as specified by Table 5-4 of this LAMP.
- Since soil moisture and groundwater do not always immediately flow into a test boring, EHB requires a minimum of 72 hours to pass before an accurate groundwater measurement is taken. This time requirement may be reduced to as little as 24 hours, if recommended by the qualified professional and approved by the EHB. The qualified professional and the property owner maintain full responsibility for protecting the public from any hazards related to the test borings. It is recommended that all test borings that encounter groundwater be converted to observation wells so the groundwater conditions can be monitored over time. Such conversion of soil borings to observation wells will be required as a permit condition for Alternative OWTS.
- **If groundwater is immediately observed after drilling or digging, the boring or test pit shall be purged of water and the water level allowed to restabilize prior to measuring the level as described above.**
- All borings and percolation test locations shall be reasonably accurate and field measured/verified, and plotted on the submitted site plan which shall be to scale.

### 5.9.1 Soil Depth
The site evaluation shall determine that adequate soil depth (and separation to groundwater) is present in the dispersal area. Soil depth is measured vertically to the point where bedrock, hardpan, impermeable soils, or saturated soils/groundwater are encountered or an adequate depth has been determined. Soil depth shall be determined through the use of soil profile(s) in the dispersal area and the designated dispersal system replacement area, or as viewed in excavations exposing the soil profiles in representative areas.
Historical or regional information indicating that a specific soil profile is unwarranted may be submitted to the EHB by the qualified professional for review. Such information shall include a written narrative, prepared by the qualified professional, indicating why, in his or her opinion, such an evaluation is unwarranted. The EHB will review the information provided to determine if a specific site evaluation is warranted.

During periods of below average rainfall, or after periods of drought where there has not been sufficient groundwater recharge, the absence of groundwater in test borings in areas where groundwater is suspect may not mean that approval to issue a septic tank permit can be granted. In this case, the qualified professional shall supplement the field investigation with reference to past groundwater and hydrogeologic studies, and review of historic groundwater levels. The qualified professional shall recommend the highest probable groundwater elevation based on review of this historic information, for review and approval by the EHB.

### 5.9.2 Percolation Testing

Percolation testing is conducted to confirm the groundwater separation requirement for the proposed site and to determine the size of the dispersal field for the project. An applicant must hire a qualified professional to conduct the percolation tests.

The EHB will determine the level of oversight to be provided during the testing. Percolation testing shall be completed in accordance with the procedures detailed in this Section.

For a percolation test, an applicant is responsible to:

1. Submit a soils and percolation testing plan with applicable fees to the EHB for review and approval. The notification shall include a project description, site map with proposed dispersal system indicating locations of the primary and expansion area(s) and depth. EHB will review the proposed project and soils and percolation testing plan to determine if monitoring of the excavations or EHB staff will be required to witness the testing.

2. Notify the EHB at least 72 hours prior to moving on site to commence soils and percolation testing.

3. Contract with a qualified professional to excavate and set up percolation test holes in locations designated by the soil testing plan that has been accepted by the EHB.

4. Contract with a qualified professional to run the percolation tests.

5. Make necessary arrangements to assure that adequate water is available for the required 24-hour pre-soaking and for refilling during the testing.

Percolation testing will normally be conducted at the time of or shortly following the soil profile investigation. No permit for a conventional OWTS shall be issued unless the property to receive the sewage effluent has a minimum percolation rate of 90 minutes per inch and a maximum percolation rate of 1 minute per inch. An Alternative OWTS shall be required when the percolation rate is less than 1 minute inch or greater than 90 minutes per inch.
90 minutes per inch. No OWTS permit shall be issued when the percolation rate is greater than 120 minutes per inch.

It is important to distinguish between soil saturation and soil swelling. Saturation means that the voids between soil particles are full of water. This can happen in a short time. Swelling is caused by intrusion of water into individual soil particles. This is a slow process. Expansive soils with high shrink-swell soils may exhibit suitable soil percolation rates during the dry season due to shrinkage cracks in the soil, but when they become wet, the same soils may swell to the point of providing little or no percolation. However, if the qualified professional determines the soil profile observations indicate the presence of expansive soils with high shrink-swell characteristics are present, based on either the soil profile or on observations of the ground's surface, (determined by the soil testing qualified professional) with high shrink-swell characteristics, percolation testing shall include a prolonged soaking period or be completed during the normal wet weather season will be required. This is because expansive soils with high shrink-swell soils may exhibit suitable soil percolation rates during the dry season due to shrinkage cracks in the soil, but when they become wet, the same soils may swell to the point of providing little or no percolation.

No permit for a conventional OWTS shall be issued unless the property to receive the sewage effluent has a minimum percolation rate of 90 minutes per inch and a maximum percolation rate of 1 minute per inch.

5.9.3 Slope Analysis
A slope means the shape that land takes with a decrease in elevation. The slope percentage is measured by dividing the vertical change in elevation (rise) by the horizontal distance over which the vertical change occurred (run), multiplied by 100. A cut slope means the soil surface that remains after materials has been removed from a natural slope.

A Geological Report means a report prepared by a California registered geologist in conformance with California Division of Mines and Geology standards that includes the following:
1. slope stability analysis in conformance with MCC, Section 15.20.070.F3;
2. seismic hazards;
3. faulting;
4. liquefaction potential;
5. other geologic hazards;
6. findings of consistency with MCC, Chapter 15.20 and this LAMP;
7. findings of consistency with the Monterey County Zoning Ordinances and the local Area Plan or Land Use Plan; and
8. measures or recommendations to mitigate any geologic hazards that are shown as a result of the report.
Historically, Monterey County has allowed dispersal systems to be installed in areas where the slope is 30 percent or less. Provided horizontal setbacks have been maintained, the incidence of surfacing effluent or slope instability in areas ranging from 25 to 30 percent slopes is very low and thus the practice shall be allowed to continue. No dispersal system shall be installed in an area when the slope is greater than 30 percent without a favorable Geological Report and incorporation of an alternative OWTS with supplemental treatment. A linear loading evaluation shall be completed by the qualified professional when an alternative dispersal system is proposed or when the slope is greater than 30 percent.

When required by Zoning Ordinance and/or local Area Plan or Land Use Plan, a Use Permit shall be obtained from the Monterey County Resource Management Agency – Planning Department prior to issuance of an OWTS construction permit. The maximum ground slope for various types of wastewater disposal systems are presented in Table 5-5 below.

Table 5-5. Allowable Ground Slope for Various Wastewater Dispersal Systems

<table>
<thead>
<tr>
<th>Type of Dispersal System</th>
<th>≥ 20%</th>
<th>21-30%</th>
<th>31-40%</th>
<th>41-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>At-Grade</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cover Fill</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mound</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional Dispersal Field</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Raised Sand Filter Bed</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Shallow-Pressure-Distribution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsurface Drip Dispersal</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

1. Supplemental treatment is required for slopes greater than 30%
2. Supplemental treatment with disinfection is required for slopes greater than 40%

When a dispersal field is proposed to be installed on a slope or downhill embankment greater than 30 percent, the site evaluation report shall also contain a slope stability study. A downhill embankment means an embankment that interrupts the soil strata of the natural slope of the land or has a slope greater than 30 percent. The slope is measured by taking into consideration the entire slope of the hillside. The embankment can either be manmade (road cuts, pool/spa excavations etc.) or created by natural process.

A steep slope means land with a slope greater than 50% that is distinctly steeper (at least 20% steeper) than the slope of the adjacent area proposed for a tank or dispersal field. The Geologic Report shall make specific findings and recommendations to ensure that installation of the OWTS will not contribute to slope failure or result in surfacing effluent when any of the following conditions may exist:

1. When a septic tank or dispersal field is proposed to be located closer to a steep than the minimum setback specified by Table 5-7: or
2. When the septic tank or dispersal field is proposed to be installed in soils or formations that contain continuous cracks or fissures; or

3. When an impermeable layer exists within 10 feet of the bottom of the dispersal field.

When a dispersal field is proposed within 50 feet of a downhill embankment of 30 percent or greater, a cross-sectional analysis to demonstrate that the setback distance from a cut, embankment or steep slope (greater than 30 percent) shall be determined by projecting a line 20 percent down gradient from the sidewall at the highest perforation of the discharge pipe (Figure 5-1). The leach fields shall be set back far enough to prevent this projected line from intersecting the cut within 100 feet, measured horizontally, from the sidewall.

5.10 Wet Weather Borings

Areas of Monterey County are known to experience seasonally high or perched groundwater. When available information or site/soil investigation indicates that fluctuations in groundwater levels may result in an inadequate distance between the bottom of the dispersal field and groundwater, the EHB may require wet weather soil borings in addition to the soil borings and percolation tests previously described.

Additional revisions to Subsections 5.11 – 5.14 and Sections 6 through 12 will be provided at a future date.
APPENDIX I: STATE OWTS POLICY

OWTS POLICY

Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems

June 19, 2012

Monterey County Local Agency Management Program for OWTS
Appendix I: State OWTS Policy
Preamble – Purpose and Scope – Structure of the Policy

State of California
Edmund G. Brown Jr., Governor

California Environmental Protection Agency
Matthew Rodriquez, Secretary

State Water Resources Control Board
http://www.waterboards.ca.gov
Charles R. Hoppin, Chair
Frances Spivy-Weber, Vice Chair
Tam M. Doduc, Member
Steven Moore, Member

Thomas Howard, Executive Director
Jonathan Bishop, Chief Deputy Director
Caren Trgovcich, Chief Deputy Director

Adopted by the State Water Resources Control Board on June 19, 2012
Approved by the Office of Administrative Law on November 13, 2012
Effective Date of the Policy: May 13, 2013

Monterey County Local Agency Management Program for OWTS
Appendix I: State OWTS Policy
Preamble

Onsite wastewater treatment systems (OWTS) are useful and necessary structures that allow habitation at locations that are removed from centralized wastewater treatment systems. When properly sited, designed, operated, and maintained, OWTS treat domestic wastewater to reduce its polluting impact on the environment and most importantly protect public health. Estimates for the number of installations of OWTS in California at the time of this Policy are that more than 1.2 million systems are installed and operating. The vast majority of these are functioning in a satisfactory manner and meeting their intended purpose.

However there have been occasions in California where OWTS for a varied list of reasons have not satisfactorily protected either water quality or public health. Some instances of these failures are related to the OWTS not being able to adequately treat and dispose of waste as a result of poor design or improper site conditions. Others have occurred where the systems are operating as designed but their densities are such that the combined effluent resulting from multiple systems is more than can be assimilated into the environment. From these failures we must learn how to improve our usage of OWTS and prevent such failures from happening again.

As California’s population continues to grow, and we see both increased rural housing densities and the building of residences and other structures in more varied terrain than we ever have before, we increase the risks of causing environmental damage and creating public health risks from the use of OWTS. What may have been effective in the past may not continue to be as conditions and circumstances surrounding particular locations change. So necessarily more scrutiny of our installation of OWTS is demanded of all those involved, while maintaining an appropriate balance of only the necessary requirements so that the use of OWTS remains viable.

Purpose and Scope of the Policy

The purpose of this Policy is to allow the continued use of OWTS, while protecting water quality and public health. This Policy recognizes that responsible local agencies can provide the most effective means to manage OWTS on a routine basis. Therefore as an important element, it is the intent of this policy to efficiently utilize and improve upon where necessary existing local programs through coordination between the State and local agencies. To accomplish this purpose, this Policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements and sets the level of performance and protection expected from OWTS. In particular, the Policy requires actions for water bodies specifically identified as part this Policy where OWTS contribute to water quality degradation that adversely affect beneficial uses.

This Policy only authorizes subsurface disposal of domestic strength, and in limited instances high strength, wastewater and establishes minimum requirements for the permitting, monitoring, and operation of OWTS for protecting beneficial uses of waters of the

Monterey County Local Agency OWTS Management Program

Appendix I: State OWTS Policy
State and preventing or correcting conditions of pollution and nuisance. And finally, this Policy also conditionally waives the requirement for owners of OWTS to apply for and receive Waste Discharge Requirements in order to operate their systems when they meet the conditions set forth in the Policy. Nothing in this Policy supersedes or requires modification of Total Maximum Daily Loads or Basin Plan prohibitions of discharges from OWTS.

This Policy also applies to OWTS on federal, state, and Tribal lands to the extent authorized by law or agreement.

**Structure of the Policy**

This Policy is structured into ten major parts:

- **Definitions**
  Definitions for all the major terms used in this Policy are provided within this part and wherever used in the Policy the definition given here overrides any other possible definition.  
  [Section 1]

- **Responsibilities and Duties**
  Implementation of this Policy involves individual OWTS owners; local agencies, be they counties, cities, or any other subdivision of state government with permitting powers over OWTS; Regional Water Quality Control Boards; and the State Water Resources Control Board.  
  [Sections 2, 3, 4, and 5]

- **Tier 0 – Existing OWTS**
  Existing OWTS that are properly functioning, and do not meet the conditions of failing systems or otherwise require corrective action (for example, to prevent groundwater impairment) as specifically described in Tier 4, and are not determined to be contributing to an impairment of surface water as specifically described in Tier 3, are automatically included in Tier 0.  
  [Section 6]

- **Tier 1 – Low-Risk New or Replacement OWTS**
  New or replacement OWTS that meet low risk siting and design requirements as specified in Tier 1, where there is not an approved Local Agency Management Program per Tier 2.  
  [Sections 7 and 8]

- **Tier 2 – Local Agency Management Program for New or Replacement OWTS**
  California is well known for its extreme range of geological and climatic conditions. As such, the establishment of a single set of criteria for OWTS would either be too restrictive so as to protect for the most sensitive case, or would have broad allowances that would not be protective enough under some circumstances. To accommodate this extreme variance, local agencies

Monterey County Local Agency OWTS Management Program
Appendix I: State OWTS Policy
may submit management programs ("Local Agency Management Programs") for approval, and upon approval then manage the installation of new and replacement OWTS under that program.

Local Agency Management Programs approved under Tier 2 provide an alternate method from Tier 1 programs to achieve the same policy purpose, which is to protect water quality and public health. In order to address local conditions, Local Agency Management Programs may include standards that differ from the Tier 1 requirements for new and replacement OWTS contained in Sections 7 and 8. As examples, a Local Agency Management Program may authorize different soil characteristics, usage of seepage pits, and different densities for new developments. Once the Local Agency Management Program is approved, new and replacement OWTS that are included within the Local Agency Management Program may be approved by the Local Agency. A Local Agency, at its discretion, may include Tier 1 standards within its Tier 2 Local Agency Management Program for some or all of its jurisdiction. However, once a Local Agency Management Program is approved, it shall supersede Tier 1 and all future OWTS decisions will be governed by the Tier 2 Local Agency Management Program until it is modified, withdrawn, or revoked. [Section 9]

Tier 3 – Impaired Areas
Existing, new, and replacement OWTS that are near impaired water bodies may be addressed by a TMDL and its implementation program, or special provisions contained in a Local Agency Management Program. If there is no TMDL or special provisions, new or replacement OWTS within 600 feet of impaired water bodies listed in Attachment 2 must meet the specific requirements of Tier 3. [Section 10]

Tier 4 – OWTS Requiring Corrective Action
OWTS that require corrective action or are either presently failing or fail at any time while this Policy is in effect are automatically included in Tier 4 and must follow the requirements as specified. [Section 11]

Conditional Waiver of Waste Discharge Requirements
The requirement to submit a report of waste discharge for discharges from OWTS that are in conformance with this policy is waived. [Section 12]

Effective Date
When this Policy becomes effective. [Section 13]

Financial Assistance
Procedures for local agencies to apply for funds to establish low interest loan programs for the assistance of OWTS owners in meeting the requirements of this Policy. [Section 14]
Attachment 1
AB 885 Regulatory Program Timelines.

Attachment 2
Tables 4 and 5 specifically identify those impaired water bodies that have Tier 3 requirements and must have a completed TMDL by the date specified.

Attachment 3
Table 6 shows where one Regional Water Board has been designated to review and, if appropriate, approve new Local Agency Management Plans for a local agency that is within multiple Regional Water Boards’ jurisdiction.

What Tier Applies to my OWTS?

Existing OWTS that conform to the requirements for Tier 0 will remain in Tier 0 as long as they continue to meet those requirements. An existing OWTS will temporarily move from Tier 0 to Tier 4 if it is determined that corrective action is needed. The existing OWTS will return to Tier 0 once the corrective action is completed if the repair does not qualify as major repair under Tier 4. Any major repairs conducted as corrective action must comply with Tier 1 requirements or Tier 2 requirements, whichever are in effect for that local area. An existing OWTS will move from Tier 0 to Tier 3 if it is adjacent to an impaired water body listed on Attachment 2, or is covered by a TMDL implementation plan.

In areas with no approved Local Agency Management Plan, new and replacement OWTS that conform to the requirements of Tier 1 will remain in Tier 1 as long as they continue to meet those requirements. A new or replacement OWTS will temporarily move from Tier 1 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 1 once the corrective action is completed. A new or replacement OWTS will move from Tier 1 to Tier 3 if it is adjacent to an impaired water body, or is covered by a TMDL implementation plan.

In areas with an approved Local Agency Management Plan, new and replacement OWTS that conform to the requirements of the Tier 2 Local Agency Management Plan will remain in Tier 2 as long as they continue to meet those requirements. A new or replacement OWTS will temporarily move from Tier 2 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 2 once the corrective action is completed. A new or replacement OWTS will move from Tier 2 to Tier 3 if it is adjacent to an impaired water body, or is covered by a TMDL implementation plan, or is covered by special provisions for impaired water bodies contained in a Local Agency Management Program.

Monterey County Local Agency OWTS Management Program
Appendix I: State OWTS Policy
Existing, new, and replacement OWTS in specified areas adjacent to water bodies that are identified by the State Water Board as impaired for pathogens or nitrogen and listed in Attachment 2 are in Tier 3. Existing, new, and replacement OWTS covered by a TMDL implementation plan, or covered by special provisions for impaired water bodies contained in a Local Agency Management Program are also in Tier 3. These OWTS will temporarily move from Tier 3 to Tier 4 if it is determined that corrective action is needed. The new or replacement OWTS will return to Tier 3 once the corrective action is completed.

Existing, new, and replacement OWTS that do not conform with the requirements to receive coverage under any of the Tiers (e.g., existing OWTS with a projected flow of more than 10,000 gpd) do not qualify for this Policy's conditional waiver of waste discharge requirements, and will be regulated separately by the applicable Regional Water Board.
Definitions

1.0 Definitions. The following definitions apply to this Policy:

“303 (d) list” means the same as “Impaired Water Bodies.”

“At-grade system” means an OWTS dispersal system with a discharge point located at the preconstruction grade (ground surface elevation). The discharge from an at grade system is always subsurface.

“Average annual rainfall” means the average of the annual amount of precipitation for a location over a year as measured by the nearest National Weather Service station for the preceding three decades. For example the data set used to make a determination in 2012 would be the data from 1981 to 2010.

“Basin Plan” means the same as “water quality control plan” as defined in Division 7 (commencing with Section 13000) of the Water Code. Basin Plans are adopted by each Regional Water Board, approved by the State Water Board and the Office of Administrative Law, and identify surface water and groundwater bodies within each Region’s boundaries and establish, for each, its respective beneficial uses and water quality objectives. Copies are available from the Regional Water Boards, electronically at each Regional Water Boards website, or at the State Water Board’s Plans and Policies web page (http://www.waterboards.ca.gov/plans_policies/).

“Bedrock” means the rock, usually solid, that underlies soil or other unconsolidated, surficial material.

“CEDEN” means California Environmental Data Exchange Network and information about it is available at the State Water Boards website or http://www.ceden.org/index.shtml.

“Cesspool” means an excavation in the ground receiving domestic wastewater, designed to retain the organic matter and solids, while allowing the liquids to seep into the soil. Cesspools differ from seepage pits because cesspool systems do not have septic tanks and are not authorized under this Policy. The term cesspool does not include pit-privies and out-houses which are not regulated under this Policy.

“Clay” means a soil particle; the term also refers to a type of soil texture. As a soil particle, clay consists of individual rock or mineral particles in soils having diameters <0.002 mm. As a soil texture, clay is the soil material that is comprised of 40 percent or more clay particles, not more than 45 percent sand and not more than 40 percent silt particles using the USDA soil classification system.

“Cobbles” means rock fragments 76 mm or larger using the USDA soil classification systems.

“Dispersal system” means a leachfield, seepage pit, mound, at-grade, subsurface drip field, evapotranspiration and infiltration bed, or other type of system for final wastewater treatment and subsurface discharge.
Definitions

“Domestic wastewater” means wastewater with a measured strength less than high-strength wastewater and is the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater. Domestic wastewater may include incidental RV holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump stations. Domestic wastewater does not include wastewater from industrial processes.

“Dump Station” means a facility intended to receive the discharge of wastewater from a holding tank installed on a recreational vehicle. A dump station does not include a full hook-up sewer connection similar to those used at a recreational vehicle park.

“Domestic well” means a groundwater well that provides water for human consumption and is not regulated by the California Department of Public Health.

“Earthen material” means a substance composed of the earth’s crust (i.e. soil and rock).

“EDF” see “electronic deliverable format.”

“Effluent” means sewage, water, or other liquid, partially or completely treated or in its natural state, flowing out of a septic tank, aerobic treatment unit, dispersal system, or other OWTS component.

“Electronic deliverable format” or “EDF” means the data standard adopted by the State Water Board for submittal of groundwater quality monitoring data to the State Water Board’s internet-accessible database system Geotracker (http://geotracker.waterboards.ca.gov).

“Escherichia coli” means a group of bacteria predominantly inhabiting the intestines of humans or other warm-blooded animals, but also occasionally found elsewhere. Used as an indicator of human fecal contamination.

“Existing OWTS” means an OWTS that was constructed and operating prior to the effective date of this Policy, and OWTS for which a construction permit has been issued prior to the effective date of the Policy.

“Flowing water body” means a body of running water flowing over the earth in a natural water course, where the movement of the water is readily discernible or if water is not present it is apparent from review of the geology that when present it does flow, such as in an ephemeral drainage, creek, stream, or river.

“Groundwater” means water below the land surface that is at or above atmospheric pressure.
Definitions

“High-strength wastewater” means wastewater having a 30-day average concentration of biochemical oxygen demand (BOD) greater than 300 milligrams per liter (mg/L) or of total suspended solids (TSS) greater than 330 mg/L or of fats, oil, and grease (FOG) concentration greater than 100 mg/L prior to the septic tank or other OWTS treatment component.

“IAPMO” means the International Association of Plumbing and Mechanical Officials.

“Impaired Water Bodies” means those surface water bodies or segments thereof that are identified on a list approved first by the State Water Board and then approved by US EPA pursuant to Section 303(d) of the federal Clean Water Act.

“Local agency” means any subdivision of state government that has responsibility for permitting the installation of and regulating OWTS within its jurisdictional boundaries; typically a county, city, or special district.

“Major repair” means either: (1) for a dispersal system, repairs required for an OWTS dispersal system due to surfacing wastewater effluent from the dispersal field and/or wastewater backed up into plumbing fixtures because the dispersal system is not able to percolate the design flow of wastewater associated with the structure served, or (2) for a septic tank, repairs required to the tank for a compartment baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating.

“Mottling” means a soil condition that results from oxidizing or reducing minerals due to soil moisture changes from saturated to unsaturated over time. Mottling is characterized by spots or blotches of different colors or shades of color (grays and reds) interspersed within the dominant color as described by the USDA soil classification system. This soil condition can be indicative of historic seasonal high groundwater level, but the lack of this condition may not demonstrate the absence of groundwater.

“Mound system” means an aboveground dispersal system (covered sand bed with effluent leachfield elevated above original ground surface inside) used to enhance soil treatment, dispersal, and absorption of effluent discharged from an OWTS treatment unit such as a septic tank. Mound systems have a subsurface discharge.

“New OWTS” means an OWTS permitted after the effective date of this Policy.

“NSF” means NSF International (a.k.a. National Sanitation Foundation), a not for profit, non-governmental organization that develops health and safety standards and performs product certification.

“Oil/grease interceptor” means a passive interceptor that has a rate of flow exceeding 50 gallons per minute and that is located outside a building. Oil/grease interceptors are used for separating and collecting oil and grease from wastewater.
Definitions

“Onsite wastewater treatment system(s)” (OWTS) means individual disposal systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal. The short form of the term may be singular or plural. OWTS do not include “graywater” systems pursuant to Health and Safety Code Section 17922.12.

“Percolation test” means a method of testing water absorption of the soil. The test is conducted with clean water and test results can be used to establish the dispersal system design.

“Permit” means a document issued by a local agency that allows the installation and use of an OWTS, or waste discharge requirements or a waiver of waste discharge requirements that authorizes discharges from an OWTS.

“Person” means any individual, firm, association, organization, partnership, business trust, corporation, company, State agency or department, or unit of local government who is, or that is, subject to this Policy.

“Pit-privy” (a.k.a. outhouse, pit-toilet) means self-contained waterless toilet used for disposal of non-water carried human waste; consists of a shelter built above a pit in the ground into which human waste falls.

“Policy” means this Policy for Siting, Design, Operation and Management of OWTS.

“Pollutant” means any substance that alters water quality of the waters of the State to a degree that it may potentially affect the beneficial uses of water, as listed in a Basin Plan.

“Projected flows” means wastewater flows into the OWTS determined in accordance with any of the applicable methods for determining average daily flow in the USEPA Onsite Wastewater Treatment System Manual, 2002, or for Tier 2 in accordance with an approved Local Agency Management Program.

“Public Water System” is a water system regulated by the California Department of Public Health or a Local Primacy Agency pursuant to Chapter 12, Part 4, California Safe Drinking Water Act, Section 116275 (h) of the California Health and Safety Code.

“Public Water Well” is a ground water well serving a public water system. A spring which is not subject to the California Surface Water Treatment Rule (SWTR), CCR, Title 22, sections 64650 through 64666 is a public well.

“Qualified professional” means an individual licensed or certified by a State of California agency to design OWTS and practice as professionals for other associated reports, as allowed under their license or registration. Depending on the work to be performed and various licensing and registration requirements, this may include an individual who possesses a registered environmental health specialist certificate or is currently licensed as a professional engineer or professional geologist. For the purposes of performing site evaluations, Soil Scientists certified by the Soil Science Society of America are considered qualified professionals. A local agency may modify this definition as part of its Local Agency Management Program.
Definitions

“Regional Water Board” is any of the Regional Water Quality Control Boards designated by Water Code Section 13200. Any reference to an action of the Regional Water Board in this Policy also refers to an action of its Executive Officer, including the conducting of public hearings, pursuant to any general or specific delegation under Water Code Section 13223.

“Replacement OWTS” means an OWTS that has its treatment capacity expanded, or its dispersal system replaced or added onto, after the effective date of this Policy.

“Sand” means a soil particle; this term also refers to a type of soil texture. As a soil particle, sand consists of individual rock or mineral particles in soils having diameters ranging from 0.05 to 2.0 millimeters. As a soil texture, sand is soil that is comprised of 85 percent or more sand particles, with the percentage of silt plus 1.5 times the percentage of clay particles comprising less than 15 percent.

“Seepage pit” means a drilled or dug excavation, three to six feet in diameter, either lined or gravel filled, that receives the effluent discharge from a septic tank or other OWTS treatment unit for dispersal.

“Septic tank” means a watertight, covered receptacle designed for primary treatment of wastewater and constructed to:

1. Receive wastewater discharged from a building;
2. Separate settleable and floating solids from the liquid;
3. Digest organic matter by anaerobic bacterial action;
4. Store digested solids; and
5. Clarify wastewater for further treatment with final subsurface discharge.

“Service provider” means a person capable of operating, monitoring, and maintaining an OWTS in accordance to this Policy.

“Silt” means a soil particle; this term also refers to a type of soil texture. As a soil particle, silt consists of individual rock or mineral particles in soils having diameters ranging from 0.05 and 0.002 mm. As a soil texture, silt is soil that is comprised as approximately 80 percent or more silt particles and not more than 12 percent clay particles using the USDA soil classification system.

“Single-family dwelling unit” means a structure that is usually occupied by just one household or family and for the purposes of this Policy is expected to generate an average of 250 gallons per day of wastewater.

“Site” means the location of the OWTS and, where applicable, a reserve dispersal area capable of disposing 100 percent of the design flow from all sources the OWTS is intended to serve.

“Site Evaluation” means an assessment of the characteristics of the site sufficient to determine its suitability for an OWTS to meet the requirements of this Policy.
Definitions

“Soil” means the naturally occurring body of porous mineral and organic materials on the land surface, which is composed of unconsolidated materials, including sandsized, silt-sized, and clay-sized particles mixed with varying amounts of larger fragments and organic material. The various combinations of particles differentiate specific soil textures identified in the soil textural triangle developed by the United States Department of Agriculture (USDA) as found in Soil Survey Staff, USDA; Soil Survey Manual, Handbook 18, U.S. Government Printing Office, Washington, DC, 1993, p. 138. For the purposes of this Policy, soil shall contain earthen material of particles smaller than 0.08 inches (2 mm) in size.

“Soil Structure” means the arrangement of primary soil particles into compound particles, peds, or clusters that are separated by natural planes of weakness from adjoining aggregates.

“Soil texture” means the soil class that describes the relative amount of sand, clay, silt and combinations thereof as defined by the classes of the soil textural triangle developed by the USDA (referenced above).

“State Water Board” is the State Water Resources Control Board

“Supplemental treatment” means any OWTS or component of an OWTS, except a septic tank or dosing tank, that performs additional wastewater treatment so that the effluent meets a predetermined performance requirement prior to discharge of effluent into the dispersal field.

“SWAMP” means Surface Water Ambient Monitoring Program and more information is available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/

“Telemetric” means the ability to automatically measure and transmit OWTS data by wire, radio, or other means.

“TMDL” is the acronym for "total maximum daily load." Section 303(d)(1) of the Clean Water Act requires each State to establish a TMDL for each impaired water body to address the pollutant(s) causing the impairment. In California, TMDLs are usually adopted as Basin Plan amendments and contain implementation plans detailing how water quality standards will be attained.

“Total coliform” means a group of bacteria consisting of several genera belonging to the family Enterobacteriaceae, which includes Escherichia coli bacteria.

“USDA” means the U.S. Department of Agriculture.

“Waste discharge requirement” or “WDR” means an operation and discharge permit issued for the discharge of waste pursuant to Section 13260 of the California Water Code.
Responsibilities and Duties

2.0 OWTS Owners Responsibilities and Duties

2.1 All new, replacement, or existing OWTS within an area that is subject to a Basin Plan prohibition of discharges from OWTS, must comply with the prohibition. If the prohibition authorizes discharges under specified conditions, the discharge must comply with those conditions and the applicable provisions of this Policy.

2.2 Owners of OWTS shall adhere to the requirements prescribed in local codes and ordinances. Owners of new and replacement OWTS covered by this Policy shall also meet the minimum standards contained in Tier 1, or an alternate standard provided by a Local Agency Management Program per Tier 2, or shall comply with the requirements of Tier 3 if near an impaired water body and subject to Tier 3, or shall provide corrective action for their OWTS if their system meets conditions that place it in Tier 4.

2.3 Owners of OWTS shall comply with any and all permitting conditions imposed by a local agency that do not directly conflict with this Policy, including any conditions that are more stringent than required by this Policy.

2.4 To receive coverage under this Policy and the included waiver of waste discharges, OWTS shall only accept and treat flows of domestic wastewater. In addition, OWTS that accept high-strength wastewater from commercial food service buildings are covered under this Policy and the waiver of waste discharge requirements if the wastewater does not exceed 900 mg/L BOD and there is a properly sized and functioning oil/grease interceptor (a.k.a grease trap).

2.5 Owners of OWTS shall maintain their OWTS in good working condition including inspections and pumping of solids as necessary, or as required by local ordinances, to maintain proper function and assure adequate treatment.

2.6 The following owners of OWTS shall notify the Regional Water Board by submitting a Report of Waste Discharge for the following:

2.6.1 a new or replacement OWTS that does not meet the conditions and requirements set forth in either a Local Agency Management Program if one is approved, an existing local program if it is less than 60 months from the effective date of the Policy and a Local Agency Management Program is not yet approved, or Tier 1 if no Local Agency Management Program has been approved and it is more than 60 months after the effective date of this Policy;

2.6.2 any OWTS, not under individual waste discharge requirements or a waiver of individual waste discharge requirements issued by a Regional Water Board, with the projected flow of over 10,000 gallons-per-day;
Responsibilities and Duties

2.6.3 any OWTS that receives high-strength wastewater, unless the waste stream is from a commercial food service building;

2.6.4 any OWTS that receives high-strength wastewater from a commercial food service building: (1) with a BOD higher than 900 mg/L, or (2) that does not have a properly sized and functioning oil/grease interceptor.

2.7 All Reports of Waste Discharge shall be accompanied by the required application fee pursuant to California Code of Regulations, title 23, section 2200.

3.0 Local Agency Requirements and Responsibilities

3.1 Local agencies, in addition to implementing their own local codes and ordinances, shall determine whether the requirements within their local jurisdiction will be limited to the water quality protection afforded by the statewide minimum standards in Tier 0, Tier 1, Tier 3, and Tier 4, or whether the local agency will implement a Local Agency Management Program in accordance with Tier 2. Except for Tier 3, local agencies may continue to implement their existing OWTS permitting programs in compliance with the Basin Plan in place at the effective date of the Policy until 60 months after the effective date of this Policy, or approval of a Local Agency Management Program, whichever comes first, and may make minor adjustments as necessary that are in compliance with the applicable Basin Plan and this Policy. Tier 3 requirements take effect on the effective date of this Policy. In the absence of a Tier 2 Local Agency Management Program, to the extent that there is a direct conflict between the applicable minimum standards and the local codes or ordinances (such that it is impossible to comply with both the applicable minimum standards and the local ordinances or codes), the more restrictive standards shall govern.

3.2 If preferred, the local agency may at any time provide the State Water Board and all affected Regional Water Board(s) written notice of its intent to regulate OWTS using a Local Agency Management Program with alternative standards as authorized in Tier 2 of this Policy. A proposed Local Agency Management Program that conforms to the requirements of that Section shall be included with the notice. A local agency shall not implement a program different than the minimum standards contained in Tier 1 and 3 of this Policy after 60 months from the effective date of this Policy until approval of the proposed Local Agency Management Program is granted by either the Regional Water Board or State Water Board. All initial program submittals desiring approval prior to the 60 month limit shall be received no later than 36 months from the effective date of this Policy. Once approved, the local agency shall adhere to the Local Agency Management Program, including all requirements, monitoring, and reporting. If at any time a local agency wishes to modify its Local Agency Management Program, it shall provide the State Water Board and all affected Regional Water Board(s) written notice of its intended modifications and will continue to implement its existing Local Agency Management Program until the modifications are approved.
3.3 All local agencies permitting OWTS shall report annually to the Regional Water Board(s). If a local agency's jurisdictional area is within the boundary of multiple Regional Water Boards, the local agency shall send a copy of the annual report to each Regional Water Board. The annual report shall include the following information (organized in a tabular spreadsheet format) and summarize whether any further actions are warranted to protect water quality or public health:

3.3.1 number and location of complaints pertaining to OWTS operation and maintenance, and identification of those which were investigated and how they were resolved;

3.3.2 shall provide the applications and registrations issued as part of the local septic tank cleaning registration program pursuant to Section 117400 et seq. of the California Health and Safety Code;

3.3.3 number, location, and description of permits issued for new and replacement OWTS and which Tier the permit is issued.

3.4 All local agencies permitting OWTS shall retain permanent records of their permitting actions and will make those records available within 10 working days upon written request for review by a Regional Water Board. The records for each permit shall reference the Tier under which the permit was issued.

3.5 A local agency shall notify the owner of a public well or water intake and the California Department of Public Health as soon as practicable, but not later than 72 hours, upon its discovery of a failing OWTS as described in sections 11.1 and 11.2 within the setbacks described in sections 7.5.6 through 7.5.10.

3.6 A local agency may implement this Policy, or a portion thereof, using its local authority to enforce the policy, as authorized by an approval from the State Water Board or by the appropriate Regional Water Board.

3.7 Nothing in the Policy shall preclude a local agency from adopting or retaining standards for OWTS in an approved Local Agency Management Program that are more protective of the public health or the environment than are contained in this Policy.

3.8 If at any time a local agency wishes to withdraw its previously submitted and approved Tier 2 Local Agency Management Program, it may do so upon 60 days written notice. The notice of withdrawal shall specify the reason for withdrawing its Tier 2 program, the effective date for cessation of the program and resumption of permitting of OWTS only under Tiers 1, 3, and 4.

4.0 Regional Water Board Functions and Duties

4.1 The Regional Water Boards have the principal responsibility for overseeing the implementation of this Policy.
Responsibilities and Duties

4.2 Regional Water Boards shall incorporate the requirements established in this Policy by amending their Basin Plans within 12 months of the effective date of this Policy, pursuant to Water Code Section 13291(e). The Regional Water Boards may also consider whether it is necessary and appropriate to retain or adopt any more protective standards. To the extent that a Regional Water Board determines that it is necessary and appropriate to retain or adopt any more protective standards, it shall reconcile those region-specific standards with this Policy to the extent feasible, and shall provide a detailed basis for its determination that each of the more protective standards is necessary and appropriate.

4.2.1 Notwithstanding 4.2 above, the North Coast Regional Water Board will continue to implement its existing Basin Plan requirements pertaining to OWTS within the Russian River watershed until it adopts the Russian River TMDL, at which time it will comply with section 4.2 for the Russian River watershed.

4.3 The Regional Water Board designated in Attachment 3 shall review, and if appropriate, approve a Local Agency Management Program submitted by the local agency pursuant to Tier 2 in this Policy. Upon receipt of a proposed Local Agency Management Program, the Regional Water Board designated in Attachment 3 shall have 90 days to notify the local agency whether the submittal contains all the elements of a Tier 2 program, but may request additional information based on review of the proposed program. Approval must follow a noticed hearing with opportunity for public comment. If a Local Agency Management Program is disapproved, the Regional Water Board designated in Attachment 3 shall provide a written explanation of the reasons for the disapproval. A Regional Water Board may approve a Local Agency Management Program while disapproving any proposed special provisions for impaired water bodies contained in the Local Agency Management Program. If no action is taken by the respective Regional Water Board within 12 months of the submission date of a complete Local Agency Management Program, the program shall be forwarded to the State Water Board for review and approval pursuant to Section 5 of this Policy.

4.3.1 Where the local agency’s jurisdiction lies within more than one Regional Water Board, staff from the affected Regional Water Boards shall work cooperatively to assure that water quality protection in each region is adequately protected. If the Regional Water Board designated in Attachment 3 approves the Local Agency Management Program over the written objection of an affected Regional Water Board, that Regional Water Board may submit the dispute to the State Water Board under Section 5.3.

4.3.2 Within 30 days of receipt of a proposed Local Agency Management Program, a Regional Water Board will forward a copy to and solicit comments from the California Department of Public Health regarding a Local Agency Management Program’s proposed policies and procedures, including notification to local water purveyors prior to OWTS permitting.
Responsibilities and Duties

4.4 Once a Local Agency Management Program has been approved, any affected Regional Water Board may require modifications or revoke authorization of a local agency to implement a Tier 2 program, in accordance with the following:

4.4.1 The Regional Water Board shall consult with any other Regional Water Board(s) having jurisdiction over the local agency before providing the notice described in section 4.4.2.

4.4.2 Written notice shall be provided to the local agency detailing the Regional Water Board’s action, the cause for such action, remedies to prevent the action from continuing to completion, and appeal process and rights. The local agency shall have 90 days from the date of the written notice to respond with a corrective action plan to address the areas of noncompliance, or to request the Regional Water Board to reconsider its findings.

4.4.3 The Regional Water Board shall approve, approve conditionally, or deny a corrective action plan within 90 days of receipt. The local agency will have 90 days to begin implementation of a corrective action plan from the date of approval or 60 days to request reconsideration from the date of denial. If the local agency fails to submit an acceptable corrective action plan, fails to implement an approved corrective action plan, or request reconsideration, the Regional Water Board may require modifications to the Local Agency Management Program, or may revoke the local agency’s authorization to implement a Tier 2 program.

4.4.4 Requests for reconsideration by the local agency shall be decided by the Regional Water Board within 90 days and the previously approved Local Agency Management Program shall remain in effect while the reconsideration is pending.

4.4.5 If the request for reconsideration is denied, the local agency may appeal to the State Water Board and the previously approved Local Agency Management Program shall remain in effect while the appeal is under consideration. The State Water Board shall decide the appeal within 90 days. All decisions of the State Water Board are final.

4.5 The appropriate Regional Water Board shall accept and consider any requests for modification or revocation of a Local Agency Management Program submitted by any person. The Regional Water Board will notify the person making the request and the local agency implementing the Local Agency Management Program at issue by letter within 90 days whether it intends to proceed with the modification or revocation process per Section 4.4 above, or is dismissing the request. The Regional Water Board will post the request and its response letter on its website.

4.6 A Regional Water Board may issue or deny waste discharge requirements or waivers of waste discharge requirements for any new or replacement OWTS within a jurisdiction...
Responsibilities and Duties

of a local agency without an approved Local Agency Management Program if that OWTS does not meet the minimum standards contained in Tier 1.

4.7 The Regional Water Boards will implement any notifications and enforcement requirements for OWTS determined to be in Tier 3 of this Policy.

4.8 Regional Water Boards may adopt waste discharge requirements, or conditional waivers of waste discharge requirements, that exempt individual OWTS from requirements contained in this Policy.

5.0 State Water Board Functions and Duties

5.1 As the state agency charged with the development and adoption of this Policy, the State Water Board shall periodically review, amend and/or update this Policy as required.

5.2 The State Water Board may take any action assigned to the Regional Water Boards in this Policy.

5.3 The State Water Board shall resolve disputes between Regional Water Boards and local agencies as needed within 12 months of receiving such a request by a Regional Water Board or local agency, and may take action on its own motion in furtherance of this Policy. As part of this function, the State Water Board shall review and, if appropriate, approve Local Agency Management Programs in cases where the respective Regional Water Board has failed to consider for approval a Local Agency Management Program. The State Water Board shall approve Local Agency Management Programs at a regularly noticed board hearing and shall provide for public participation, including notice and opportunity for public comment. Once taken up by the State Water Board, Local Agency Management Programs shall be approved or denied within 180 days.

5.4 A member of the public may request the State Water Board to resolve any dispute regarding the Regional Water Board’s approval of a Local Agency Management Program if the member of the public timely raised the disputed issue before the Regional Water Board. Such requests shall be submitted within 30 days after the Regional Water Board’s approval of the Local Agency Management Program. The State Water Board shall notify the member of the public, the local agency, and the Regional Water Board within 90 days whether it intends to proceed with dispute resolution.

5.5 The State Water Board shall accept and consider any requests for modification or revocation of a Local Agency Management Program submitted by any person, where that person has previously submitted said request to the Regional Water Board and has received notice from the Regional Water Board of its dismissal of the request. The State Water Board will notify the person making the request and the local agency implementing the Local Agency Management Program at issue by letter within 90 days whether it intends to proceed with the modification or revocation process per Section 4.4.
Responsibilities and Duties

above, or is dismissing the request. The State Water Board will post the request and its response letter on its website.

5.6 The State Water Board or its Executive Director, after approving any Impaired Water Bodies [303 (d)] List, and for the purpose of implementing Tier 3 of this Policy, shall update Attachment 2 to identify those water bodies where: (1) it is likely that operating OWTS will subsequently be determined to be a contributing source of pathogens or nitrogen and therefore it is anticipated that OWTS would receive a loading reduction, and (2) it is likely that new OWTS installations discharging within 600 feet of the water body would contribute to the impairment. This identification shall be based on information available at the time of 303 (d) listing and may be further updated based on new information. Updates to Attachment 2 will be processed as amendments to this Policy.

5.7 The State Water Board will make available to local agencies funds from its Clean Water State Revolving Fund loan program for mini-loan programs to be operated by the local agencies for the making of low interest loans to assist private property owners with complying with this Policy.
Tier 0 – Existing OWTS

Existing OWTS that are properly functioning and do not meet the conditions of failing systems or otherwise require corrective action (for example, to prevent groundwater impairment) as specifically described in Tier 4, and are not determined to be contributing to an impairment of surface water as specifically described in Tier 3, are automatically included in Tier 0.

6.0 Coverage for Properly Operating Existing OWTS

6.1 Existing OWTS are automatically covered by Tier 0 and the herein included waiver of waste discharge requirements if they meet the following requirements:

6.1.1 have a projected flow of 10,000 gallons-per-day or less;

6.1.2 receive only domestic wastewater from residential or commercial buildings, or high-strength wastewater from commercial food service buildings that does not exceed 900 mg/L BOD and has a properly sized and functioning oil/grease interceptor (a.k.a. grease trap);

6.1.3 continue to comply with any previously imposed permitting conditions;

6.1.4 do not require supplemental treatment under Tier 3;

6.1.5 do not require corrective action under Tier 4; and

6.1.6 do not consist of a cesspool as a means of wastewater disposal.

6.2 A Regional Water Board or local agency may deny coverage under this Policy to any OWTS that is:

6.2.1 Not in compliance with Section 6.1;

6.2.2 Not able to adequately protect the water quality of the waters of the State, as determined by the Regional Water Board after considering any input from the local agency. A Regional Water Board may require the submission of a report of waste discharge to receive Region specific waste discharge requirements or waiver of waste discharge requirements so as to be protective.

6.3 Existing OWTS currently under waste discharge requirements or individual waiver of waste discharge requirements will remain under those orders until notified in writing by the appropriate Regional Water Board that they are covered under this Policy.
Tier 1 – Low Risk New or Replacement OWTS

New or replacement OWTS meet low risk siting and design requirements as specified in Tier 1, where there is not an approved Local Agency Management Program per Tier 2.

7.0 Minimum Site Evaluation and Siting Standards

7.1 A qualified professional shall perform all necessary soil and site evaluations for all new OWTS and for existing OWTS where the treatment or dispersal system will be replaced or expanded.

7.2 A site evaluation shall determine that adequate soil depth is present in the dispersal area. Soil depth is measured vertically to the point where bedrock, hardpan, impermeable soils, or saturated soils are encountered or an adequate depth has been determined. Soil depth shall be determined through the use of soil profile(s) in the dispersal area and the designated dispersal system replacement area, as viewed in excavations exposing the soil profiles in representative areas, unless the local agency has determined through historical or regional information that a specific site soil profile evaluation is unwarranted.

7.3 A site evaluation shall determine whether the anticipated highest level of groundwater within the dispersal field and its required minimum dispersal zone is not less than prescribed in Table 2 by estimation using one or a combination of the following methods:

7.3.1 Direct observation of the highest extent of soil mottling observed in the examination of soil profiles, recognizing that soil mottling is not always an indicator of the uppermost extent of high groundwater; or

7.3.2 Direct observation of groundwater levels during the anticipated period of high groundwater. Methods for groundwater monitoring and determinations shall be decided by the local agency; or

7.3.3 Other methods, such as historical records, acceptable to the local agency.

7.3.4 Where a conflict in the above methods of examination exists, the direct observation method indicating the highest level shall govern.

7.4 Percolation test results in the effluent disposal area shall not be faster than one minute per inch (1 MPI) or slower than one hundred twenty minutes per inch (120 MPI). All percolation test rates shall be performed by presoaking of percolation test holes and continuing the test until a stabilized rate is achieved.

7.5 Minimum horizontal setbacks from any OWTS treatment component and dispersal systems shall be as follows:

7.5.1 5 feet from parcel property lines and structures;

7.5.2 100 feet from water wells and monitoring wells, unless regulatory or legitimate data requirements necessitate that monitoring wells be located closer;
Tier 1 – Low Risk New or Replacement OWTS

7.5.3 100 feet from any unstable land mass or any areas subject to earth slides identified by a registered engineer or registered geologist; other setback distance are allowed, if recommended by a geotechnical report prepared by a qualified professional.

7.5.4 100 feet from springs and flowing surface water bodies where the edge of that water body is the natural or levied bank for creeks and rivers, or may be less where site conditions prevent migration of wastewater to the water body;

7.5.5 200 feet from vernal pools, wetlands, lakes, ponds, or other surface water bodies where the edge of that water body is the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies;

7.5.6 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet;

7.5.7 Where the effluent dispersal system is within 1,200 feet from a public water systems’ surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

7.5.8 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems’ surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

7.6 Prior to issuing a permit to install an OWTS the permitting agency shall determine if the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage catchment in which the intake point is located, and is located such that it may impact water quality at the intake point such as being upstream of the intake point for a flowing water body. If the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage catchment in which the intake point is located, and is located such that it may impact water quality at the intake point:

7.6.1 The permitting agency shall provide a copy of the permit application to the owner of the water system of their proposal to install an OWTS within 1,200 feet of an intake point for a surface water treatment. If the owner of the water system cannot be identified, then the permitting agency will notify California Department of Public Health Drinking Water Program.

7.6.2 The permit application shall include a topographical plot plan for the parcel showing the OWTS components, the property boundaries, proposed structures, physical address, and name of property owner.
Tier 1 – Low Risk New or Replacement OWTS

7.6.3 The permit application shall provide the estimated wastewater flows, intended use of proposed structure generating the wastewater, soil data, and estimated depth to seasonally saturated soils.

7.6.4 The public water system owner shall have 15 days from receipt of the permit application to provide recommendations and comments to the permitting agency.

7.7 Natural ground slope in all areas used for effluent disposal shall not be greater than 25 percent.

7.8 The average density for any subdivision of property made by Tentative Approval pursuant to the Subdivision Map Act occurring after the effective date of this Policy and implemented under Tier 1 shall not exceed the allowable density values in Table 1 for a single-family dwelling unit, or its equivalent, for those units that rely on OWTS.

<table>
<thead>
<tr>
<th>Average Annual Rainfall (in/yr)</th>
<th>Allowable Density (acres/single family dwelling unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 15</td>
<td>2.5</td>
</tr>
<tr>
<td>&gt;15 - 20</td>
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<tr>
<td>&gt;20 - 25</td>
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<td>&gt;35 - 40</td>
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</table>

8.0 Minimum OWTS Design and Construction Standards

8.1 OWTS Design Requirements

8.1.1 A qualified professional shall design all new OWTS and modifications to existing OWTS where the treatment or dispersal system will be replaced or expanded. A qualified professional employed by a local agency, while acting in that capacity, may design, review, and approve a design for a proposed OWTS, if authorized by the local agency.

8.1.2 OWTS shall be located, designed, and constructed in a manner to ensure that effluent does not surface at any time, and that percolation of effluent will not adversely affect beneficial uses of waters of the State.

8.1.3 The design of new and replacement OWTS shall be based on the expected influent wastewater quality with a projected flow not to exceed 3,500 gallons per day, the peak wastewater flow rates for purposes of sizing hydraulic components, the projected average daily flow for purposes of sizing the dispersal system, the characteristics of the site, and the required level of treatment for protection of water quality and public health.
Tier 1 – Low Risk New or Replacement OWTS

8.1.4 All dispersal systems shall have at least twelve (12) inches of soil cover, except for pressure distribution systems, which must have at least six (6) inches of soil cover.

8.1.5 The minimum depth to the anticipated highest level of groundwater below the bottom of the leaching trench, and the native soil depth immediately below the leaching trench, shall not be less than prescribed in Table 2.

<table>
<thead>
<tr>
<th>Percolation Rate</th>
<th>Minimum Depth</th>
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<tr>
<td>Percolation Rate ≤ 1 MPI</td>
<td>Only as authorized in a Tier 2 Local Agency Management Program</td>
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<tr>
<td>1 MPI &lt; Percolation Rate ≤ 5 MPI</td>
<td>Twenty (20) feet</td>
</tr>
<tr>
<td>5 MPI &lt; Percolation Rate ≤ 30 MPI</td>
<td>Eight (8) feet</td>
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<tr>
<td>30 MPI &lt; Percolation Rate ≤ 120 MPI</td>
<td>Five (5) feet</td>
</tr>
<tr>
<td>Percolation Rate &gt; 120 MPI</td>
<td>Only as authorized in a Tier 2 Local Agency Management Program</td>
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</tbody>
</table>

MPI = minutes per inch

8.1.6 Dispersal systems shall be a leachfield, designed using not more than 4 square-feet of infiltrative area per linear foot of trench as the infiltrative surface, and with trench width no wider than 3 feet. Seepage pits and other dispersal systems may only be authorized for repairs where siting limitations require a variance. Maximum application rates shall be determined from stabilized percolation rate as provided in Table 3, or from soil texture and structure determination as provided in Table 4.

8.1.7 Dispersal systems shall not exceed a maximum depth of 10 feet as measured from the ground surface to the bottom of the trench.
## Tier 1 – Low Risk New or Replacement OWTS

### Monterey County Local Agency OWTS Management Program

#### Appendix I: State OWTS Policy

Table 3: Application Rates as Determined from Stabilized Percolation Rate

<table>
<thead>
<tr>
<th>Percolation Rate (minutes per inch)</th>
<th>Application Rate (gallons per day per square foot)</th>
<th>Percolation Rate (minutes per inch)</th>
<th>Application Rate (gallons per day per square foot)</th>
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</table>
## Tier 1 – Low Risk New or Replacement OWTS

### Table 4: Design Soil Application Rates
(Source: USEPA Onsite Wastewater Treatment Systems Manual, February 2002)

<table>
<thead>
<tr>
<th>Soil Texture (per the USDA soil classification system)</th>
<th>Soil Structure Shape</th>
<th>Grade</th>
<th>Maximum Soil Application Rate (gallons per day per square foot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse Sand, Sand, Loamy Coarse Sand, Loamy Sand</td>
<td>Single grain</td>
<td>Structureless</td>
<td>0.8</td>
</tr>
<tr>
<td>Fine Sand, Very Fine Sand, Loamy Fine Sand, Loamy Very Fine Sand</td>
<td>Single grain</td>
<td>Structureless</td>
<td>0.4</td>
</tr>
<tr>
<td>Coarse Sandy Loam, Sandy Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>0.2</td>
</tr>
<tr>
<td>Platy</td>
<td>Weak</td>
<td>Moderate, Strong</td>
<td>Prohibited</td>
</tr>
<tr>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>Moderate, Strong</td>
<td>0.6</td>
</tr>
<tr>
<td>Fine Sandy Loam, very fine Sandy Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>0.2</td>
</tr>
<tr>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
<td></td>
</tr>
<tr>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>Moderate, Strong</td>
<td>0.4</td>
</tr>
<tr>
<td>Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>0.2</td>
</tr>
<tr>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
<td></td>
</tr>
<tr>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>Moderate, Strong</td>
<td>0.6</td>
</tr>
<tr>
<td>Silt Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>Prohibited</td>
</tr>
<tr>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
<td></td>
</tr>
<tr>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>Moderate, Strong</td>
<td>0.6</td>
</tr>
<tr>
<td>Sandy Clay Loam, Clay Loam, Silty Clay Loam</td>
<td>Massive</td>
<td>Structureless</td>
<td>Prohibited</td>
</tr>
<tr>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
<td></td>
</tr>
<tr>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>Moderate, Strong</td>
<td>0.4</td>
</tr>
<tr>
<td>Sandy Clay, Clay, or Silty Clay</td>
<td>Massive</td>
<td>Structureless</td>
<td>Prohibited</td>
</tr>
<tr>
<td>Platy</td>
<td>Weak, Moderate, Strong</td>
<td>Prohibited</td>
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</tr>
<tr>
<td>Prismatic, Blocky, Granular</td>
<td>Weak</td>
<td>Prohibited</td>
<td></td>
</tr>
</tbody>
</table>

1 Soils listed as prohibited may be allowed under the authority of the Regional Water Board, or as allowed under an approved Local Agency Management Program per Tier 2.

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8.1.8 All new dispersal systems shall have 100 percent replacement area that is equivalent and separate, and available for future use.

8.1.9 No dispersal systems or replacement areas shall be covered by an impermeable surface, such as paving, building foundation slabs, plastic sheeting, or any other material that prevents oxygen transfer to the soil.

8.1.10 Rock fragment content of native soil surrounding the dispersal system shall not exceed 50 percent by volume for rock fragments sized as cobbles or larger and shall be estimated using either the point-count or line-intercept methods.

8.1.11 Increased allowance for IAPMO certified dispersal systems is not allowed under Tier 1.

8.2 OWTS Construction and Installation

8.2.1 All new or replacement septic tanks and new or replacement oil/grease interceptor tanks shall comply with the standards contained in Sections K5(b), K5(c), K5(d), K5(e), K5(k), K5(m)(1), and K5(m)(3)(ii) of Appendix K, of Part 5, Title 24 of the 2007 California Code of Regulations.

8.2.2 All new septic tanks shall comply with the following requirements:

8.2.2.1 Access openings shall have watertight risers, the tops of which shall be set at most 6 inches below finished grade; and

8.2.2.2 Access openings at grade or above shall be locked or secured to prevent unauthorized access.

8.2.3 New and replacement OWTS septic tanks shall be limited to those approved by the International Association of Plumbing and Mechanical Officials (IAPMO) or stamped and certified by a California registered civil engineer as meeting the industry standards, and their installation shall be according to the manufacturer’s instructions.

8.2.4 New and replacement OWTS septic tanks shall be designed to prevent solids in excess of three-sixteenths (3/16) of an inch in diameter from passing to the dispersal system. Septic tanks that use a National Sanitation Foundation/American National Standard Institute (NSF/ANSI) Standard 46 certified septic tank filter at the final point of effluent discharge from the OWTS and prior to the dispersal system shall be deemed in compliance with this requirement.
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8.2.5 A Licensed General Engineering Contractor (Class A), General Building Contractor (Class B), Sanitation System Contractor (Specialty Class C-42), or Plumbing Contractor (Specialty Class C-36) shall install all new OWTS and replacement OWTS in accordance with California Business and Professions Code Sections 7056, 7057, and 7058 and Article 3, Division 8, Title 16 of the California Code of Regulations. A property owner may also install his/her own OWTS if the as-built diagram and the installation are inspected and approved by the Regional Water Board or local agency at a time when the OWTS is in an open condition (not covered by soil and exposed for inspection).
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Local agencies may submit management programs for approval, and upon approval then manage the installation of new and replacement OWTS under that program. Local Agency Management Programs approved under Tier 2 provide an alternate method from Tier 1 programs to achieve the same policy purpose, which is to protect water quality and public health. In order to address local conditions, Local Agency Management Programs may include standards that differ from the Tier 1 requirements for new and replacement OWTS contained in Sections 7 and 8. As examples, a Local Agency Management Program may authorize different soil characteristics, usage of seepage pits, and different densities for new developments. Once the Local Agency Management Program is approved, new and replacement OWTS that are included within the Local Agency Management Program may be approved by the Local Agency. A Local Agency, at its discretion, may include Tier 1 standards within its Tier 2 Local Agency Management Program for some or all of its jurisdiction. However, once a Local Agency Management Program is approved, it shall supersede Tier 1 and all future OWTS decisions will be governed by the Tier 2 Local Agency Management Program until it is modified, withdrawn, or revoked.

9.0 Local Agency Management Program for Minimum OWTS Standards

The Local Agency Management Program for minimum OWTS Standards is a management program where local agencies can establish minimum standards that are differing requirements from those specified in Tier 1 (Section 7 and Section 8), including the areas that do not meet those minimum standards and still achieve this Policy's purpose. Local Agency Management Programs may include any one or combination of the following to achieve this purpose:

- Differing system design requirements;
- Differing siting controls such as system density and setback requirements;
- Requirements for owners to enter monitoring and maintenance agreements; and/or
- Creation of an onsite management district or zone.

9.1 Where different and/or additional requirements are needed to protect water quality the local agency shall consider the following, as well as any other conditions deemed appropriate, when developing Local Agency Management Program requirements:

9.1.1 Degree of vulnerability to pollution from OWTS due to hydrogeological conditions.

9.1.2 High Quality waters or other environmental conditions requiring enhanced protection from the effects of OWTS.

9.1.3 Shallow soils requiring a dispersal system installation that is closer to ground surface than is standard.

9.1.4 OWTS is located in area with high domestic well usage.

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9.1.5 Dispersal system is located in an area with fractured bedrock.

9.1.6 Dispersal system is located in an area with poorly drained soils.

9.1.7 Surface water is vulnerable to pollution from OWTS.

9.1.8 Surface water within the watershed is listed as impaired for nitrogen or pathogens.

9.1.9 OWTS is located within an area of high OWTS density.

9.1.10 A parcel’s size and its susceptibility to hydraulic mounding, organic or nitrogen loading, and whether there is sufficient area for OWTS expansion in case of failure.

9.1.11 Geographic areas that are known to have multiple, existing OWTS predating any adopted standards of design and construction including cesspools.

9.1.12 Geographic areas that are known to have multiple, existing OWTS located within either the pertinent setbacks listed in Section 7.5 of this Policy, or a setback that the local agencies finds is appropriate for that area.

9.2 The Local Agency Management Program shall detail the scope of its coverage, such as the maximum authorized projected flows for OWTS, as well as a clear delineation of those types of OWTS included within and to be permitted by the program, and provide the local site evaluation, siting, design, and construction requirements, and in addition each of the following:

9.2.1 Any local agency requirements for onsite wastewater system inspection, monitoring, maintenance, and repairs, including procedures to ensure that replacements or repairs to failing systems are done under permit from the local governing jurisdiction.

9.2.2 Any special provisions applicable to OWTS within specified geographic areas near specific impaired water bodies listed for pathogens or nitrogen. The special provisions may be substantive and/or procedural, and may include, as examples: consultation with the Regional Water Board prior to issuing permits, supplemental treatment, development of a management district or zone, special siting requirements, additional inspection and monitoring.

9.2.3 Local Agency Management Program variances, for new installations and repairs in substantial conformance, to the greatest extent practicable. Variances are not allowed for the requirements stated in sections 9.4.1 through 9.4.9.

9.2.4 Any educational, training, certification, and/or licensing requirements that will be required of OWTS service providers, site evaluators, designers, installers, pumpers, maintenance contractors, and any other person relating to OWTS activities.

9.2.5 Education and/or outreach program including informational materials to inform OWTS owners about how to locate, operate, and maintain their

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OWTS as well as any Water Board order (e.g., Basin Plan prohibitions) regarding OWTS restrictions within its jurisdiction. The education and/or outreach program shall also include procedures to ensure that alternative onsite system owners are provided an informational maintenance or replacement document by the system designer or installer. This document shall cite homeowner procedures to ensure maintenance, repair, or replacement of critical items within 48 hours following failure. If volunteer well monitoring programs are available within the local agency’s jurisdiction, the outreach program shall include information on how well owners may participate.

9.2.6 An assessment of existing and proposed disposal locations for septage, the volume of septage anticipated, and whether adequate capacity is available.

9.2.7 Any consideration given to onsite maintenance districts or zones.

9.2.8 Any consideration given to the development and implementation of, or coordination with, Regional Salt and Nutrient Management Plans.

9.2.9 Any consideration given to coordination with watershed management groups.

9.2.10 Procedures for evaluating the proximity of sewer systems to new or replacement OWTS installations.

9.2.11 Procedures for notifying the owner of a public water system prior to issuing an installation or repair permit for an OWTS, if the OWTS is within 1,200 feet of an intake point for a surface water treatment plant for drinking water, is in the drainage area catchment in which the intake point is located, and is located such that it may impact water quality at the intake point such as upstream of the intake point for a flowing water body, or if the OWTS is within a horizontal sanitary setback from a public well.

9.2.12 Policies and procedures that will be followed when a proposed OWTS dispersal area is within the horizontal sanitary setback of a public well or a surface water intake point. These policies and procedures shall either indicate that supplemental treatment as specified in 10.9 and 10.10 of this policy are required for OWTS that are within a horizontal sanitary setback of a public well or surface water intake point, or will establish alternate siting and operational criteria for the proposed OWTS that would similarly mitigate the potential adverse impact to the public water source.

9.2.13 Any plans for the phase-out or discontinuance of cesspool usage.

9.3 The minimum responsibilities of the local agency for management of the Local Agency Management Program include:

9.3.1 Maintain records of the number, location, and description of permits issued for OWTS where a variance is granted.
9.3.2 Maintain a water quality assessment program to determine the general operation status of OWTS and to evaluate the impact of OWTS discharges, and assess the extent to which groundwater and local surface water quality may be adversely impacted. The focus of the assessment should be areas with characteristics listed under section 9.1. The assessment program will include monitoring and analysis of water quality data, review of complaints, variances, failures, and any information resulting from inspections. The assessment may use existing water quality data from other monitoring programs and/or establish the terms, conditions, and timing for monitoring done by the local agency. At a minimum this assessment will include monitoring data for nitrates and pathogens, and may include data for other constituents which are needed to adequately characterize the impacts of OWTS on water quality. Other monitoring programs for which data may be used include but are not limited to any of the following:

9.3.2.1. Random well samples from a domestic well sampling program.
9.3.2.2. Routine real estate transfer samples if those are performed and reported.
9.3.2.3. Review of public system sampling reports done by the local agency or another municipality responsible for the public system.
9.3.2.4. Water quality testing reports done at the time of new well development if those are reported.
9.3.2.5. Beach water quality testing data performed as part of Health and Safety Code Section 115885.
9.3.2.6. Receiving water sampling performed as a part of a NPDES permit.
9.3.2.7. Data contained in the California Water Quality Assessment Database.
9.3.2.8. Groundwater sampling performed as part of Waste Discharge Requirements.
9.3.2.9. Groundwater data collected as part of the Groundwater Ambient Monitoring and Assessment Program and available in the Geotracker Database.

9.3.3 Submit an annual report by February 1 to the applicable Regional Water Board summarizing the status of items 9.3.1 through 9.3.2 above. Every fifth year, submit an evaluation of the monitoring program and an assessment of whether water quality is being impacted by OWTS, identifying any changes in the Local Agency Management Program that will be undertaken to address impacts from OWTS. The first report will commence one year after approval of the local agency’s Local Agency Management Program. In addition to summarizing monitoring data collected per 9.3.2 above, all groundwater monitoring data generated by the local agency shall be submitted in EDF format for inclusion into
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Geotracker, and surface water monitoring shall be submitted to CEDEN in a SWAMP comparable format.

9.4 The following are not allowed to be authorized in a Local Agency Management Program:

9.4.1 Cesspools of any kind or size.

9.4.2 OWTS receiving a projected flow over 10,000 gallons per day.

9.4.3 OWTS that utilize any form of effluent disposal that discharges on or above the post installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond.

9.4.4 Slopes greater than 30 percent without a slope stability report approved by a registered professional.

9.4.5 Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 0.70.

9.4.6 OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.

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

9.4.8 Separation of the bottom of dispersal system to groundwater less than two (2) feet, except for seepage pits, which shall not be less than 10 feet.

9.4.9 Installation of new or replacement OWTS where public sewer is available. The public sewer may be considered as not available when such public sewer or any building or exterior drainage facility connected thereto is located more than 200 feet from any proposed building or exterior drainage facility on any lot or premises that abuts and is served by such public sewer. This provision does not apply to replacement OWTS where the connection fees and construction cost are greater than twice the total cost of the replacement OWTS and the local agency determines that the discharge from the OWTS will not affect groundwater or surface water to a degree that makes it unfit for drinking or other uses.

9.4.10 Except as provided for in sections 9.4.11 and 9.4.12, new or replacement OWTS with minimum horizontal setbacks less than any of the following:

9.4.10.1 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet in depth.

9.4.10.2 200 feet from a public water well where the depth of the effluent dispersal system exceeds 10 feet in depth.

9.4.10.3 Where the effluent dispersal system is within 600 feet of a public water well and exceeds 20 feet in depth the horizontal setback required to achieve a two-year travel time for microbiological contaminants shall be evaluated. A qualified professional shall conduct this evaluation. However in no case shall the setback be less than 200 feet.
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9.4.10.4 Where the effluent dispersal system is within 1,200 feet from a public water systems’ surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

9.4.10.5 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems’ surface water intake point, within the catchment area of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

9.4.11 For replacement OWTS that do not meet the above horizontal separation requirements, the replacement OWTS shall meet the horizontal separation to the greatest extent practicable. In such case, the replacement OWTS shall utilize supplemental treatment and other mitigation measures, unless the permitting authority finds that there is no indication that the previous system is adversely affecting the public water source, and there is limited potential that the replacement system could impact the water source based on topography, soil depth, soil texture, and groundwater separation.

9.4.12 For new OWTS, installed on parcels of record existing at the time of the effective date of this Policy, that cannot meet the above horizontal separation requirements, the OWTS shall meet the horizontal separation to the greatest extent practicable and shall utilize supplemental treatment for pathogens as specified in section 10.8 and any other mitigation measures prescribed by the permitting authority.

9.5 A Local Agency Management Program for OWTS must include adequate detail, including technical information to support how all the criteria in their program work together to protect water quality and public health.

9.6 A Regional Water Board reviewing a Local Agency Management Program shall consider, among other things, the past performance of the local program to adequately protect water quality, and where this has been achieved with criteria differing from Tier 1, shall not unnecessarily require modifications to the program for purposes of uniformity, as long as the Local Agency Management Program meets the requirements of Tier 2.
Tier 3 – Impaired Areas

Tier 3 – Advanced Protection Management Programs for Impaired Areas

Existing, new, and replacement OWTS that are near impaired water bodies may be addressed by a TMDL and its implementation program, or special provisions contained in a Local Agency Management Program. If there is no TMDL or special provisions, new or replacement OWTS within 600 feet of impaired water bodies listed in Attachment 2 must meet the applicable specific requirements of Tier 3.

10.0 Advanced Protection Management Program

An Advanced Protection Management Program is the minimum required management program for all OWTS located near a water body that has been listed as impaired due to nitrogen or pathogen indicators pursuant to Section 303(d) of the Clean Water Act. Local agencies are authorized to implement Advanced Protection Management Programs in conjunction with an approved Local Agency Management Program or, if there is no approved Local Agency Management Program, Tier 1. Local agencies are encouraged to collaborate with the Regional Water Boards by sharing any information pertaining to the impairment, provide advice on potential remedies, and regulate OWTS to the extent that their authority allows for the improvement of the impairment.

10.1 The geographic area for each water body’s Advanced Protection Management Program is defined by the applicable TMDL, if one has been approved. If there is not an approved TMDL, it is defined by an approved Local Agency Management Program, if it contains special provisions for that water body. If it is not defined in an approved TMDL or Local Agency Management Program, it shall be 600 linear feet [in the horizontal (map) direction] of a water body listed in Attachment 2 where the edge of that water body is the natural or levied bank for creeks and rivers, the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies, as appropriate. OWTS near impaired water bodies that are not listed on Attachment 2, and do not have a TMDL and are not covered by a Local Agency Management Program with special provisions, are not addressed by Tier 3.

10.2 The requirements of an Advanced Protection Management Program will be in accordance with a TMDL implementation plan, if one has been adopted to address the impairment. An adopted TMDL implementation plan supersedes all other requirements in Tier 3. All TMDL implementation plans adopted after the effective date of this Policy that contain load allocations for OWTS shall include a schedule that requires compliance with the load allocations as soon as practicable, given the watershed-specific circumstances. The schedule shall require that OWTS implementation actions for OWTS installed prior to the TMDL implementation plan’s effective date shall commence within 3 years after the TMDL implementation plan’s effective date, and that OWTS implementation actions for OWTS installed after the TMDL implementation plan’s effective date shall commence immediately. The TMDL implementation plan may use some or all of the Tier 3 requirements and shall establish the applicable area of implementation for OWTS requirements within the watershed.

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bodies that do have an adopted TMDL addressing the impairment, but the TMDL does not assign a load allocation to OWTS, no further action is required unless the TMDL is modified at some point in the future to include actions for OWTS. Existing, new, and replacement OWTS that are near impaired water bodies and are covered by a Basin Plan prohibition must also comply with the terms of the prohibition, as provided in Section 2.1.

10.3 In the absence of an adopted TMDL implementation plan, the requirements of an Advanced Protection Management Program will consist of any special provisions for the water body if any such provisions have been approved as part of a Local Agency Management Program.

10.4 The Regional Water Boards shall adopt TMDLs for impaired water bodies identified in Attachment 2, in accordance with the specified dates.

10.4.1 If a Regional Water Board does not complete a TMDL within two years of the time period specified in Attachment 2, coverage under this Policy’s waiver of waste discharge requirements shall expire for any OWTS that has any part of its dispersal system discharging within the geographic area of an Advanced Protection Management Program. The Regional Water Board shall issue waste discharge requirements, general waste discharge requirements, waivers of waste discharge requirements, or require corrective action for such OWTS. The Regional Water Board will consider the following when establishing the waste discharge requirements, general waste discharge requirements, waivers of waste discharge requirements, or requirement for corrective action:

10.4.1.1 Whether supplemental treatment should be required.
10.4.1.2 Whether routine inspection of the OWTS should be required.
10.4.1.3 Whether monitoring of surface and groundwater should be performed.
10.4.1.4 The collection of a fee for those OWTS covered by the order.
10.4.1.5 Whether owners of previously-constructed OWTS should file a report by a qualified professional in accordance with section 10.5.
10.4.1.6 Whether owners of new or replacement OWTS should file a report of waste discharge with additional supporting technical information as required by the Regional Water Board.

10.5 If the Regional Water Board requires owners of OWTS to submit a qualified professional’s report pursuant to Section 10.4.1.5, the report shall include a determination of whether the OWTS is functioning properly and as designed or requires corrective actions per Tier 4, and regardless of its state of function, whether it is contributing to impairment of the water body.

10.5.1 The qualified professional’s report may also include, but is not limited to:
10.5.1.1 A general description of system components, their physical layout, and horizontal setback distances from property lines, buildings, wells, and surface waters.
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10.5.1.2 A description of the type of wastewater discharged to the OWTS such as domestic, commercial, or industrial and classification of it as domestic wastewater or high-strength waste.

10.5.1.3 A determination of the systems design flow and the volume of wastewater discharged daily derived from water use, either estimated or actual if metered.

10.5.1.4 A description of the septic tank, including age, size, material of construction, internal and external condition, water level, scum layer thickness, depth of solids, and the results of a one-hour hydrostatic test.

10.5.1.5 A description of the distribution box, dosing siphon, or distribution pump, and if flow is being equally distributed throughout the dispersal system, as well as any evidence of solids carryover, clear water infiltration, or evidence of system backup.

10.5.1.6 A description of the dispersal system including signs of hydraulic failure, condition of surface vegetation over the dispersal system, level of ponding above the infiltrative surface within the dispersal system, other possible sources of hydraulic loading to the dispersal area, and depth of the seasonally high groundwater level.

10.5.1.7 A determination of whether the OWTS is discharging to the ground’s surface.

10.5.1.8 For a water body listed as an impaired water body for pathogens, a determination of the OWTS dispersal system’s separation from its deepest most infiltrative surface to the highest seasonal groundwater level or fractured bedrock.

10.5.1.9 For a water body listed as an impaired water body for nitrogen, a determination of whether the groundwater under the dispersal field is reaching the water body, and a description of the method used to make the determination.

10.6 For new, replacement, and existing OWTS in an Advanced Protection Management Program, the following are not covered by this Policy’s waiver but may be authorized by a separate Regional Water Board order:

10.6.1 Cesspools of any kind or size.

10.6.2 OWTS receiving a projected flow over 10,000 gallons per day.

10.6.3 OWTS that utilize any form of effluent disposal on or above the ground surface.

10.6.4 Slopes greater than 30 percent without a slope stability report approved by a registered professional.
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10.6.5 Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 0.70.

10.6.6 OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.

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

10.6.8 Separation of the bottom of dispersal system to groundwater less than two (2) feet, except for seepage pits, which shall not be less than 10 feet.

10.6.9 Minimum horizontal setbacks less than any of the following:

10.6.9.1 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet in depth;

10.6.9.2 200 feet from a public water well where the depth of the effluent dispersal system exceeds 10 feet in depth;

10.6.9.3 Where the effluent dispersal system is within 600 feet of a public water well and exceeds 20 feet in depth the horizontal setback required to achieve a two-year travel time for microbiological contaminants shall be evaluated. A qualified professional shall conduct this evaluation. However in no case shall the setback be less than 200 feet.

10.6.9.4 Where the effluent dispersal system is within 1,200 feet from a public water systems’ surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.

10.6.9.5 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems’ surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

10.6.9.6 For replacement OWTS that do not meet the above horizontal separation requirements, the replacement OWTS shall meet the horizontal separation to the greatest extent practicable. In such case, the replacement OWTS shall utilize supplemental treatment and other mitigation measures.

10.6.9.7 For new OWTS, installed on parcels of record existing at the time of the effective date of this Policy, that cannot meet the above horizontal separation requirements, the OWTS shall meet the horizontal separation to the greatest extent practicable and shall
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utilize supplemental treatment for pathogens as specified in section 10.10 and any other mitigation measures as prescribed by the permitting authority.

10.7 The requirements contained in Section 10 shall not apply to owners of OWTS that are constructed and operating, or permitted, on or prior to the date that the nearby water body is added to Attachment 2 who commit by way of a legally binding document to connect to a centralized wastewater collection and treatment system regulated through WDRs as specified within the following timeframes:

10.7.1 The owner must sign the document within forty-eight months of the date that the nearby water body is initially listed on Attachment 2.

10.7.2 The specified date for the connection to the centralized community wastewater collection and treatment system shall not extend beyond nine years following the date that the nearby water body is added to Attachment 2.

10.8 In the absence of an adopted TMDL implementation plan or Local Agency Management Program containing special provisions for the water body, all new or replacement OWTS permitted after the date that the water body is initially listed in Attachment 2 that have any discharge within the geographic area of an Advanced Protection Management Program shall meet the following requirements:

10.8.1 Utilize supplemental treatment and meet performance requirements in 10.9 if impaired for nitrogen and 10.10 if impaired for pathogens,

10.8.2 Comply with the setback requirements of Section 7.5.1 to 7.5.5, and

10.8.3 Comply with any applicable Local Agency Management Program requirements.

10.9 Supplemental treatment requirements for nitrogen

10.9.1 Effluent from the supplemental treatment components designed to reduce nitrogen shall be certified by NSF, or other approved third party tester, to meet a 50 percent reduction in total nitrogen when comparing the 30-day average influent to the 30-day average effluent.

10.9.2 Where a drip-line dispersal system is used to enhance vegetative nitrogen uptake, the dispersal system shall have at least six (6) inches of soil cover.
Tier 3 – Impaired Areas

10.10 Supplemental treatment requirements for pathogens

10.10.1 Supplemental treatment components designed to perform disinfection shall provide sufficient pretreatment of the wastewater so that effluent from the supplemental treatment components does not exceed a 30-day average TSS of 30 mg/L and shall further achieve an effluent fecal coliform bacteria concentration less than or equal to 200 Most Probable Number (MPN) per 100 milliliters.

10.10.2 The minimum soil depth and the minimum depth to the anticipated highest level of groundwater below the bottom of the dispersal system shall not be less than three (3) feet. All dispersal systems shall have at least twelve (12) inches of soil cover.

10.11 OWTS in an Advanced Protection Management Program with supplemental treatment shall be designed to meet the applicable performance requirements above and shall be stamped or approved by a Qualified Professional.

10.12 Prior to the installation of any proprietary treatment OWTS in an Advanced Protection Management Program, all such treatment components shall be tested by an independent third party testing laboratory.

10.13 The ongoing monitoring of OWTS in an Advanced Protection Management Program with supplemental treatment components designed to meet the performance requirements in Sections 10.9 and 10.10 shall be monitored in accordance with the operation and maintenance manual for the OWTS or more frequently as required by the local agency or Regional Water Board.

10.14 OWTS in an Advanced Protection Management Program with supplemental treatment components shall be equipped with a visual or audible alarm as well as a telemetric alarm that alerts the owner and service provider in the event of system malfunction. Where telemetry is not possible, the owner or owner’s agent shall inspect the system at least monthly while the system is in use as directed and instructed by a service provider and notify the service provider not less than quarterly of the observed operating parameters of the OWTS.

10.15 OWTS in an Advanced Protection Management Program designed to meet the disinfection requirements in Section 10.10 shall be inspected for proper operation quarterly while the system is in use by a service provider unless a telemetric monitoring system is capable of continuously assessing the operation of the disinfection system. Testing of the wastewater flowing from supplemental treatment components that perform disinfection shall be sampled at a point in the system after the treatment components and prior to the dispersal system and shall be conducted quarterly based on analysis of total coliform with a minimum detection limit of 2.2 MPN. All effluent samples must include the geographic coordinates of the sample’s location. Effluent samples shall be taken by a service provider and analyzed by a California Department of Public Health certified laboratory.
10.16 The minimum responsibilities of a local agency administering an Advanced Protection Management Program include those prescribed for the Local Agency Management Programs in Section 9.3 of this policy, as well as monitoring owner compliance with Sections 10.13, 10.14, and 10.15.
Tier 4 – OWTS Requiring Corrective Action

Tier 4 – OWTS Requiring Corrective Action
OWTS that require corrective action or are either presently failing or fail at any time while this Policy is in effect are automatically included in Tier 4 and must follow the requirements as specified. OWTS included in Tier 4 must continue to meet applicable requirements of Tier 0, 1, 2 or 3 pending completion of corrective action.

11.0 Corrective Action for OWTS

11.1 Any OWTS that has pooling effluent, discharges wastewater to the surface, or has wastewater backed up into plumbing fixtures, because its dispersal system is no longer adequately percolating the wastewater is deemed to be failing, no longer meeting its primary purpose to protect public health, and requires major repair, and as such the dispersal system must be replaced, repaired, or modified so as to return to proper function and comply with Tier 1, 2, or 3 as appropriate.

11.2 Any OWTS septic tank failure, such as a baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating is deemed to be failing, no longer meeting its primary purpose to protect public health, and requires major repair, and as such shall require the septic tank to be brought into compliance with the requirements of Section 8 in Tier 1 or a Local Agency Management Program per Tier 2.

11.3 Any OWTS that has a failure of one of its components other than those covered by 11.1 and 11.2 above, such as a distribution box or broken piping connection, shall have that component repaired so as to return the OWTS to a proper functioning condition and return to Tier 0, 1, 2, or 3.

11.4 Any OWTS that has affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other public nuisance condition shall be modified or upgraded so as to abate its impact.

11.5 If the owner of the OWTS is not able to comply with corrective action requirements of this section, the Regional Water Board may authorize repairs that are in substantial conformance, to the greatest extent practicable, with Tiers 1 or 3, or may require the owner of the OWTS to submit a report of waste discharge for evaluation on a case-by-case basis. Regional Water Board response to such reports of waste discharge may include, but is not limited to, enrollment in general waste discharge requirements, issuance of individual waste discharge requirements, or issuance of waiver of waste discharge requirements. A local agency may authorize repairs that are in substantial conformance, to the greatest extent practicable, with Tier 2 in accordance with section 9.2.3 if there is an approved Local Agency Management Program, or with an existing program if a Local Agency Management Program has not been approved and it is less than 5 years from the effective date of the Policy.
Tier 4  OWTS Requiring Corrective Action

11.6 Owners of OWTS will address any corrective action requirement of Tier 4 as soon as is reasonably possible, and must comply with the time schedule of any corrective action notice received from a local agency or Regional Water Board, to retain coverage under this Policy.

11.7 Failure to meet the requirements of Tier 4 constitute a failure to meet the conditions of the waiver of waste discharge requirements contained in this Policy, and is subject to further enforcement action.
Waiver – Effective Date – Financial Assistance

Conditional Waiver of Waste Discharge Requirements

12.0 In accordance with Water Code section 13269, the State Water Board hereby waives the requirements to submit a report of waste discharge, obtain waste discharge requirements, and pay fees for discharges from OWTS covered by this Policy. Owners of OWTS covered by this Policy shall comply with the following conditions:

12.0.1 The OWTS shall function as designed with no surfacing effluent.

12.0.2 The OWTS shall not utilize a dispersal system that is in soil saturated with groundwater.

12.0.3 The OWTS shall not be operated while inundated by a storm or flood event.

12.0.4 The OWTS shall not cause or contribute to a condition of nuisance or pollution.

12.0.5 The OWTS shall comply with all applicable local agency codes, ordinances, and requirements.

12.0.6 The OWTS shall comply with and meet any applicable TMDL implementation requirements, special provisions for impaired water bodies, or supplemental treatment requirements imposed by Tier 3.

12.0.7 The OWTS shall comply with any corrective action requirements of Tier 4.

12.1 This waiver may be revoked by the State Water Board or the applicable Regional Water Board for any discharge from an OWTS, or from a category of OWTS.

Effective Date

13.0 This Policy becomes effective six months after its approval by the Office of Administrative Law, and all deadlines and compliance dates stated herein start at such time.
Waiver – Effective Date – Financial Assistance

Financial Assistance

14.0 Local Agencies may apply to the State Water Board for funds from the Clean Water State Revolving Fund for use in mini-loan programs that provide low interest loan assistance to private property owners with costs associated with complying with this Policy.

14.1 Loan interest rates for loans to local agencies will be set by the State Water Board using its policies, procedures, and strategies for implementing the Clean Water State Revolving Fund program, but will typically be one-half of the States most recent General Obligation bond sale. Historically interest rates have ranged between 2.0 and 3.0 percent.

14.2 Local agencies may add additional interest points to their loans made to private entities to cover their costs of administering the mini-loan program.

14.3 Local agencies may submit their suggested loan eligibility criteria for the mini-loan program they wish to establish to the State Water Board for approval, but should consider the legislative intent stated in Water Code Section 13291.5 is that assistance is encouraged for private property owners whose cost of complying with the requirements of this policy exceeds one-half of one percent of the current assessed value of the property on which the OWTS is located.
Attachment 2

The tables below specifically identify those impaired water bodies where: (1) it is likely that operating OWTS will subsequently be determined to be a contributing source of pathogens or nitrogen and therefore it is anticipated that OWTS would receive a loading reduction, and (2) it is likely that new OWTS installations discharging within 600 feet of the water body would contribute to the impairment. Per this Policy (Tier 3, Section 10) the Regional Water Boards must adopt a TMDL by the date specified in the table. The State Water Board, at the time of approving future 303 (d) Lists, will specifically identify those impaired water bodies that are to be added or removed from the tables below.

Table 5. Water Bodies impaired for pathogens that are subject to Tier 3 as of 2012.

<table>
<thead>
<tr>
<th>REGION NO.</th>
<th>REGION NAME</th>
<th>WATERBODY NAME</th>
<th>COUNTIES</th>
<th>TMDL Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>North Coast</td>
<td>Clam Beach</td>
<td>Humboldt</td>
<td>2020</td>
</tr>
<tr>
<td>1</td>
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<td>Luffenholtz Beach</td>
<td>Humboldt</td>
<td>2020</td>
</tr>
<tr>
<td>1</td>
<td>North Coast</td>
<td>Moonstone County Park</td>
<td>Humboldt</td>
<td>2020</td>
</tr>
<tr>
<td>1</td>
<td>North Coast</td>
<td>Russian River HU, Lower Russian River HA, Guerneville HSA, mainstem Russian River from Fife Creek to Dutch Bill Creek</td>
<td>Sonoma</td>
<td>2016</td>
</tr>
<tr>
<td>1</td>
<td>North Coast</td>
<td>Russian River HU, Lower Russian River HA, Guerneville HSA, Green Valley Creek watershed</td>
<td>Sonoma</td>
<td>2016</td>
</tr>
<tr>
<td>1</td>
<td>North Coast</td>
<td>Russian River HU, Middle Russian River HA, Geyserville HSA, mainstem Russian River at Healdsburg Memorial Beach and unnamed tributary at Fitch Mountain</td>
<td>Sonoma</td>
<td>2016</td>
</tr>
<tr>
<td>1</td>
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<td>Russian River HU, Middle Russian River HA, mainstem Laguna de Santa Rosa</td>
<td>Sonoma</td>
<td>2016</td>
</tr>
<tr>
<td>1</td>
<td>North Coast</td>
<td>Russian River HU, Middle Russian River HA, mainstem Santa Rosa Creek</td>
<td>Sonoma</td>
<td>2016</td>
</tr>
<tr>
<td>1</td>
<td>North Coast</td>
<td>Trinidad State Beach</td>
<td>Humboldt</td>
<td>2020</td>
</tr>
<tr>
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<td>China Camp Beach</td>
<td>Marin</td>
<td>2014</td>
</tr>
<tr>
<td>2</td>
<td>San Francisco Bay</td>
<td>Lawsons Landing</td>
<td>Marin</td>
<td>2015</td>
</tr>
<tr>
<td>2</td>
<td>San Francisco Bay</td>
<td>Pacific Ocean at Bolinas Beach</td>
<td>Marin</td>
<td>2014</td>
</tr>
</tbody>
</table>
## Attachment 2

<table>
<thead>
<tr>
<th>REGION NO.</th>
<th>REGION NAME</th>
<th>WATERBODY NAME</th>
<th>COUNTIES</th>
<th>TMDL Completion Date</th>
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<tbody>
<tr>
<td>2</td>
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<td>Pacific Ocean at Fitzgerald Marine Reserve</td>
<td>San Mateo</td>
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<tr>
<td>2</td>
<td>San Francisco Bay</td>
<td>Pacific Ocean at Muir Beach</td>
<td>Marin</td>
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</tr>
<tr>
<td>2</td>
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<td>Pacific Ocean at Pillar Point Beach</td>
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</tr>
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<td>Marin, Sonoma</td>
<td>2017</td>
</tr>
<tr>
<td>2</td>
<td>San Francisco Bay</td>
<td>Petaluma River (tidal portion)</td>
<td>Marin, Sonoma</td>
<td>2017</td>
</tr>
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<td>San Francisco Bay</td>
<td>San Gregorio Creek</td>
<td>San Mateo</td>
<td>2019</td>
</tr>
<tr>
<td>3</td>
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<td>Pacific Ocean at Point Rincon (mouth of Rincon Cr, Santa Barbara County)</td>
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<tr>
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<td>Canada Larga (Ventura River Watershed)</td>
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</tr>
<tr>
<td>4</td>
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<td>San Gabriel River Reach 1 (Estuary to Firestone)</td>
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<td>San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam)</td>
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<tr>
<td>4</td>
<td>Los Angeles</td>
<td>San Gabriel River Reach 3 (Whittier Narrows to Ramona)</td>
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</tr>
<tr>
<td>4</td>
<td>Los Angeles</td>
<td>San Jose Creek Reach 1 (SG Confluence to Temple St.)</td>
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</tr>
<tr>
<td>4</td>
<td>Los Angeles</td>
<td>San Jose Creek Reach 2 (Temple to I-10 at White Ave.)</td>
<td>Los Angeles</td>
<td>2015</td>
</tr>
<tr>
<td>4</td>
<td>Los Angeles</td>
<td>Sawpit Creek</td>
<td>Los Angeles</td>
<td>2015</td>
</tr>
<tr>
<td>4</td>
<td>Los Angeles</td>
<td>Ventura River Reach 3 (Weldon Canyon to Confl. w/ Coyote Cr)</td>
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<td>Los Angeles</td>
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<td>5</td>
<td>Central Valley</td>
<td>Wolf Creek (Nevada County)</td>
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<td>5</td>
<td>Central Valley</td>
<td>Woods Creek (Tuolumne County)</td>
<td>Tuolumne</td>
<td>2020</td>
</tr>
<tr>
<td>7</td>
<td>Colorado River</td>
<td>Alamo River</td>
<td>Imperial</td>
<td>2017</td>
</tr>
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</table>

Monterey County Local Agency OWTS Management Program
Appendix I: State OWTS Policy
<table>
<thead>
<tr>
<th>REGION NO.</th>
<th>REGION NAME</th>
<th>WATERBODY NAME</th>
<th>COUNTIES</th>
<th>TMDL Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Colorado River</td>
<td>Palo Verde Outfall Drain and Lagoon</td>
<td>Imperial, Riverside</td>
<td>2017</td>
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<tr>
<td>8</td>
<td>Santa Ana</td>
<td>Canyon Lake (Railroad Canyon Reservoir)</td>
<td>Riverside</td>
<td>2019</td>
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<tr>
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<td>Fulmor, Lake</td>
<td>Riverside</td>
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<td>Goldenstar Creek</td>
<td>Riverside</td>
<td>2019</td>
</tr>
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<td>2017</td>
</tr>
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<td>Lytle Creek</td>
<td>San Bernardino</td>
<td>2019</td>
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<td>Mill Creek Reach 1</td>
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<tr>
<td>8</td>
<td>Santa Ana</td>
<td>Mill Creek Reach 2</td>
<td>San Bernardino</td>
<td>2015</td>
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<td>Santa Ana</td>
<td>Morning Canyon Creek</td>
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<td>8</td>
<td>Santa Ana</td>
<td>Mountain Home Creek</td>
<td>San Bernardino</td>
<td>2019</td>
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<td>8</td>
<td>Santa Ana</td>
<td>Mountain Home Creek, East Fork</td>
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<td>2019</td>
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<td>Silverado Creek</td>
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</tr>
<tr>
<td>8</td>
<td>Santa Ana</td>
<td>Peters Canyon Channel</td>
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<td>Santa Ana</td>
<td>Santa Ana River, Reach 2</td>
<td>Orange, Riverside</td>
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</tr>
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<td>8</td>
<td>Santa Ana</td>
<td>Temescal Creek, Reach 6 (Elsinore Groundwater sub basin boundary to Lake Elsinore Outlet)</td>
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<td>2019</td>
</tr>
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<td>8</td>
<td>Santa Ana</td>
<td>Seal Beach</td>
<td>Orange</td>
<td>2017</td>
</tr>
<tr>
<td>8</td>
<td>Santa Ana</td>
<td>Serrano Creek</td>
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<td>2017</td>
</tr>
<tr>
<td>8</td>
<td>Santa Ana</td>
<td>Huntington Harbour</td>
<td>Orange</td>
<td>2017</td>
</tr>
</tbody>
</table>
## Attachment 2

**Table 6.** Water Bodies impaired for nitrogen that are subject to Tier 3.

<table>
<thead>
<tr>
<th>REGION NO.</th>
<th>REGION NAME</th>
<th>WATERBODY NAME</th>
<th>COUNTIES</th>
<th>TMDL Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>North Coast</td>
<td>Russian River HU, Middle Russian River HA, mainstem Laguna de Santa Rosa</td>
<td>Sonoma</td>
<td>2015</td>
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<td>San Francisco Bay</td>
<td>Lagunitas Creek</td>
<td>Marin</td>
<td>2016</td>
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<td>San Francisco Bay</td>
<td>Napa River</td>
<td>Napa, Solano</td>
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<td>Petaluma River</td>
<td>Marin, Sonoma</td>
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<td>San Francisco Bay</td>
<td>Petaluma River (tidal portion)</td>
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<td>2017</td>
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<td>San Francisco Bay</td>
<td>Sonoma Creek</td>
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<td>San Francisco Bay</td>
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<td>Los Angeles</td>
<td>Malibu Creek</td>
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<td>2016</td>
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<td>4</td>
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<td>San Antonio Creek (Tributary to Ventura River Reach 4)</td>
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<td>Grout Creek</td>
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<td>Santa Ana</td>
<td>Rathbone (Rathbun) Creek</td>
<td>San Bernardino</td>
<td>2015</td>
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<td>Santa Ana</td>
<td>Summit Creek</td>
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<td>2015</td>
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<td>8</td>
<td>Santa Ana</td>
<td>Serrano Creek</td>
<td>Orange</td>
<td>2017</td>
</tr>
</tbody>
</table>
Attachment 3

Regional Water Boards, upon mutual agreement, may designate one Regional Water Board to regulate a person or entity that is under the jurisdiction of both (Water Code Section 13228). The following table identifies the designated Regional Water Board for all counties within the State for purposes of reviewing and, if appropriate, approving new Local Agency Management Plans.

Table 7. Regional Water Board designations by County.

<table>
<thead>
<tr>
<th>County</th>
<th>Regions with Jurisdiction</th>
<th>Designated Region</th>
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<tbody>
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<td>Alameda</td>
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<td>Alpine</td>
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<td>Butte</td>
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