

**ORDINANCE NO. \_\_\_\_\_**

**AN ORDINANCE OF THE COUNTY OF MONTEREY, STATE OF CALIFORNIA,  
AMENDING CHAPTER 15.20 OF THE MONTEREY COUNTY CODE RELATING TO  
SEWAGE DISPOSAL**

**County Counsel Summary**

*This ordinance amends and updates Chapter 15.20 of the Monterey County Code relating to sewage disposal. The amendments implement the County's Local Agency Management Program for Onsite Wastewater Treatment Systems (LAMP) which was adopted in 2018 in compliance with the state's Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems. The ordinance stipulates when connection to public sewer is required and specifies when sewage disposal by means of onsite wastewater treatment is allowable. The ordinance includes permitting requirements and standards for installation and operation of onsite wastewater treatment systems (OWTS), alternative OWTS, and onsite treated nonpotable water systems (OTNWS) in unincorporated Monterey County. The ordinance also establishes an annual registration program for qualified professionals who design, install, inspect, maintain, repair, or replace OWTS in unincorporated Monterey County. The ordinance also includes enforcement provisions. The ordinance will take effect on the thirty-first day after adoption.*

The Board of Supervisors of the County of Monterey hereby ordains as follows:

SECTION 1. Chapter 15.20 of the Monterey County Code is hereby amended to read as follows:

**Chapter 15.20 -- SEWAGE DISPOSAL**

**15.20.005 – Derivation of regulatory authority**

On June 19, 2012, pursuant to California Water Code section 13290 et seq., the California Water Resources Control Board (State Water Board) adopted Resolution No. 2012-0032, adopting the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems ("OWTS Policy"). The OWTS Policy establishes a statewide, tiered approach for regulation and management of onsite wastewater treatment systems (OWTS). The OWTS Policy authorizes local implementation of the OWTS Policy. In accordance with Tier 2 of the OWTS Policy, on April 3, 2018, the County of Monterey adopted the County's Local Agency Management Program for Onsite Wastewater Treatment Systems ("LAMP"). On May 10-11, 2018, the Central Coast Regional Water Quality Control Board approved the County's LAMP. (Central Coast Regional Water Quality Control Board Resolution No. R3-2018-0004). The LAMP establishes standards for all new, replacement and expansion OWTS and for OWTS demolition within Monterey County. The standards and specifications of the LAMP became effective on May 11, 2018. This Chapter 15.20 implements the LAMP and replaces the prior regulations in Chapter 15.20.

### **15.20.010 – Purpose**

The purpose of this Chapter is to allow the continued use of onsite wastewater treatment systems while protecting water quality and public health through the proper design, placement, installation, maintenance, and evaluation of individual onsite wastewater treatment systems in Monterey County. These regulations are intended to implement the County's LAMP and update Chapter 15.20 of the County Code to be consistent with the LAMP.

### **15.20.020 – Applicability**

A. This Chapter applies in the unincorporated area of Monterey County. The LAMP and this Chapter may also apply to a city or other jurisdictional area by written agreement approved by the County and the subject jurisdiction.

B. The standards of this Chapter and the LAMP shall be applicable to all Onsite Wastewater Treatment Systems (OWTS) with subsurface dispersal that discharge ten thousand (10,000) gallons per day or less of domestic wastewater and to OWTS over which the County has delegated authority, as provided below.

1. An OWTS installation permit from the County is required when the total discharge is ten thousand (10,000) gallons per day or less of domestic wastewater.
2. An OWTS installation permit from the County is required when the total discharge of domestic wastewater is greater than ten thousand (10,000) gallons per day or any volume of non-domestic wastewater when the Central Coast Regional Water Quality Control Board (RWQCB) has delegated, in writing, permit authority for the OWTS to the County.
3. An OWTS operating permit from the County is required when the County has determined that routine monitoring or maintenance is necessary to ensure the system is operating in an acceptable manner and as designed.

C. Notwithstanding Subsection B, the County may also require OWTS with discharges of ten thousand (10,000) gallons per day or less to obtain a discharge permit from the RWQCB, in addition to an installation permit from the County, when the proposed wastewater treatment system has not been tested to meet NSF/ANSI standards.

D. The standards of this Chapter shall also be applicable to all Onsite Treated Nonpotable Water Systems (OTNWS) that require a plumbing permit from the County.

E. It is unlawful and a violation of the County Code to construct, replace, modify or abandon an OWTS or OTNWS without obtaining all required permits.

### **15.20.030 - Definitions**

As used in this Chapter, unless otherwise apparent from the context:

A. “Accessory Structure” means a subordinate structure, the use of which is incidental to that of a main structure on the same building site. For the purposes of this Chapter, an accessory structure shall be considered a detached bedroom when:

1. The structure is classified with a Residential Group (i.e. “R” occupancy), as determined by the California Building Standards Code (Title 24 of the California Code of Regulations); and
2. The restroom includes a shower and/or bathtub.

B. “Aerobic” means an environment providing readily available molecular oxygen to aerobic bacteria metabolizing wastewater.

C. “Alternative OWTS” means a type of onsite wastewater treatment system (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.

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

F. “At grade system” means 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 twelve inches (12”) of suitable soil that will support vegetative growth. Wastewater effluent is applied to the gravel distribution bed using pressure distribution.

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

H. “Bedroom” means any room in the conditioned (heated) area of a dwelling unit which:

1. Is seventy square feet (70ft<sup>2</sup>) or greater in size; and
2. Is not less than seven feet (7’) in any horizontal dimension; and
3. Includes an exterior door or window for egress that meets the most current edition of the California Building Standards Code (California Code of Regulations, Title 24); and
4. 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; dining room; breakfast nook; pantry; laundry room; closet/dressing room opening from a bedroom. Living rooms, family rooms,

dens, and other interior rooms that lack a door and have an opening five feet (5') or wider shall not be considered a bedroom.

I. "Beneficial uses" means those qualities in waters of the State of California that may be protected against quality degradation that include, but are not necessarily limited to, the following uses: domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife and other aquatic resources or preserves.

J. "Biochemical oxygen demand" (BOD) measures the 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. BOD5 expresses milligrams of oxygen consumed per liter of sample during five days of incubation at twenty degrees Celsius (20 °C.)

K. "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 one inch into the soil matrix. It provides physical, chemical, and biological treatment of the OWTS effluent as effluent migrates toward groundwater.

L. "Central Coast Regional Water Quality Control Board" (RWQCB) means the Regional Water Quality Control Board for the Central Coast region of California as designated by Water Code Section 13200. Any reference to an action of the Regional Water Board in this Chapter and in the 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.

M. "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 the LAMP. The term cesspool does not include pit-prives and out-houses which are not regulated under this Chapter.

N. "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 less than two-thousandths of a millimeter (<0.002 mm.) As a soil texture, clay is the soil material that is comprised of forty percent (40%) or more clay particles, not more than forty five percent (45%) sand and not more than forty percent (40%) silt particles using the USDA soil classification system.

O. "Cobbles" means rock fragments seventy six millimeters (76 mm) or larger using the USDA soil classification systems.

P. “Conforming dispersal system” means an existing dispersal system that meets all water-related horizontal and vertical setback requirements, pursuant to Tables 3, 4 and 5 of this Chapter, is not covered by an impermeable surface, and is less than ten feet (10’) total depth.

Q. “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: 1) the permeability difference between the absorption area and any deeper horizons; 2) the depth between the absorption area and the change in permeability; and 3) the land slope.

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

S. “Curtain drain” means a lined, rock-filled trench with a pipe in the bottom of the trench for the purpose of intercepting and diverting subsurface water.

T. “Director” means the Director of the Monterey County Health Department, or the Director’s authorized deputies, assistants, or designees.

U. “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.

V. “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 and is defined as having average concentration of the following constituents:

1. BOD5 less than or equal to two hundred eighty six milligrams per liter (286 mg/L); or
2. TSS less than or equal to three hundred thirty milligrams per liter (330 mg/L); or
3. FOG less than or equal to one hundred five milligrams per liter (105 mg/L); or
4. Total Nitrogen (TN) less than seventy five milligrams per liter (75 mg/L.)

Domestic wastewater may include wastewater from commercial buildings such as office buildings, retail stores, and restaurants or industrial facilities where the domestic wastewater remains separate from the wastewater generated from commercial or industrial processes. Domestic wastewater may include incidental dumping of holding tanks from a personal recreational vehicle (RV) (e.g. no more than one (1) time per month), 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 generated from commercial or industrial processing.

W. "Downhill embankment" means an embankment that has a slope of thirty percent (30%) or greater or one that interrupts the soil strata of the natural slope of the land. The slope is measured by taking into consideration the entire slope of the hillside. The embankment can

either be humanmade or created by natural processes. Examples: humanmade (e.g., road cuts, pool/spa excavations etc.); natural (e.g., thirty percent (30%) slope, erosion gully, cliff face, etc.).

X. “Drainageway” means a natural or artificial channel that is not a watercourse as defined by the LAMP and this Chapter. Examples of a drainageway include irrigation and drainage ditches that flow only for hours or days following rainfall, grass-lined swales, concrete-lined canals, and storm water runoff devices.

Y. “Dwelling unit” means a place of human habitation that is self-sufficient (i.e., bedroom/s; kitchen with sink, oven/stove, refrigerator, and storage of food; bathroom/s) and conforms with the edition of the Uniform Building Code and the Uniform Housing Code in place at the time of construction. For the purposes of this Chapter, this definition shall also apply to Accessory Dwelling Unit’s (ADU’s). A guesthouse, as defined in Titles 20 and 21 of this Code, is not considered a dwelling unit.

Z. “Effective depth” means the depth of the useable, permeable layers of soil below the bottom of the distribution pipe in a dispersal system.

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

BB. “Environmental Health Bureau” (EHB) means Monterey County Health Department, Environmental Health Bureau.

CC. “Existing OWTS” means an OWTS that has been installed and is in operation. References in this Chapter to “existing OWTS” may include conventional or alternative OWTS.

DD. “Expansion OWTS” means installation of a larger capacity septic tank or installation of additional dispersal system area to increase the capacity of an existing OWTS. Expansion OWTS shall also include the installation of a supplemental treatment unit to improve the quality of treated wastewater effluent to support additional development on the property.

EE. “Fats, oils and grease” (FOG) means biological lipids and mineral hydrocarbons. High amounts of FOG result in significantly increased biological demand on downstream OWTS components, such as the dispersal area, and may drastically shorten the life of the system.

FF. “Future dispersal system area” means the area of land on a property that is set aside and protected from all uses except future OWTS dispersal system replacement. A future dispersal system that will be installed after the primary and secondary dispersal systems is sometimes referred to as a “tertiary” or “third” dispersal system.

GG. “Gleying” means a soil condition that occurs in soils that have been waterlogged for prolonged periods of time. It is a technical term that describes the gray, blue, purple, or green soil colors that occur in soils when anaerobic microbes flourish in the absence of air, reducing iron and manganese minerals. Gleying is distinguishable from mottling due to its uniform coloration while mottling exhibits splotchy coloration.

HH. “Gray water” or “graywater” means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes (as defined by Health and Safety Code section 17922.12, as may be periodically amended). Gray water includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs. Gray water does not include wastewater from kitchen sinks or dishwashers.

II. “Gray water system” means a system that disposes of or reuses exclusively gray water and conforms with the latest edition of the California Plumbing Code and Title 18 of this Code, as each may be amended from time to time.

JJ. “Groundwater” means water below the land surface and includes perched water or subsurface sheeting water.

KK. “Guesthouse” means the same as defined by Titles 20 or 21 of this Code and is considered a detached bedroom for purposes of sizing the OWTS.

LL. “Hardpan” means a hardened impervious layer, typically of clay, occurring in or below the soil and impairing drainage. There are different types of hardpan, all sharing the general characteristic of being a distinct soil layer that is largely impervious to water.

MM. “Haul away system” means a wastewater management system that does not include onsite dispersal and consists of wastewater being stored in a tank until it is pumped out by a registered liquid waste hauler and hauled to an approved wastewater treatment facility for disposal.

NN. “Health Department” means the Monterey County Health Department.

OO. “High strength wastewater” means wastewater with a measured strength greater than domestic wastewater, based on seven (7) day composite sampling of untreated wastewater prior to the septic tank or a supplemental treatment component. Sources of high strength wastewater may include but are not limited to recreational vehicle (RV) dump stations, wineries, commercial centers, and rest stops.

PP. “Infiltrative Area” means the surface area of the sidewalls below the effluent distribution pipe where the dispersal field media makes direct contact with the soil or permeable rock. The surface area of the bottom of the dispersal system can be included in specific circumstances.

QQ. “International Association of Plumbing and Mechanical Officials” (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.

RR. “Impervious layer or material” means a layer or material within the soil column that is characterized as having a percolation rate slower than one hundred twenty minutes per inch (120 MPI) or having clay content of sixty percent (60%) or greater.

SS. “Junior accessory dwelling unit” (JADU) means a dwelling unit that is created fully within the walls of a proposed or existing single family dwelling and that is no more than five hundred square feet (500 ft<sup>2</sup>). For the purposes of this Chapter, a JADU shall not be evaluated as a separate dwelling unit, and instead, OWTS requirements shall be applied in consideration of the number of bedrooms proposed within the JADU.

TT. “Local Agency Management Program for Onsite Wastewater Treatment Systems” (LAMP) means the regulatory document adopted by the Board of Supervisors of the County of Monterey on April 3, 2018 and approved by the Central Coast Regional Water Quality Control Board on May 10-11, 2018, which conforms to all of the applicable Tier 2 criteria listed in 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 (OWTS Policy), including adherence to the prohibitions specified in the OWTS Policy.

UU. “Leachfield” means a system of trenches or beds filled with drain rock, or other approved aggregate material, and overlain by a perforated pipe that distributes treated sewage effluent for subsurface dispersal into the soil. A leachfield is also known as a “drainfield” or a “soil absorption system”.

VV. “Mottling” means a soil condition that results from oxidizing or reducing minerals due to the change of soil moisture 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. This soil condition can be indicative of historic seasonal high groundwater level, but the lack of this condition does not preclude the presence of groundwater.

WW. “Mound system” means 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.

XX. “National Sanitation Foundation” (“NSF”, also known as NSF International) is a not for profit, non-governmental organization that develops health standards that help protect water and the environment and performs product certification.

YY. “New OWTS” means any OWTS proposed to be installed or for which a permit has been issued that will serve a new building with plumbing.

ZZ. “Nitrogen” means a chemical or forms of chemical compounds which act as a potentially limiting nutrient for photosynthetic autotrophs in surface water and are a potential health risk in groundwater. The principal forms of nitrogen found in wastewater are organic nitrogen (Organic-N), ammonia nitrogen (NH<sub>3</sub>-N), ammonium nitrogen (NH<sub>4</sub>-N), nitrite nitrogen (NO<sub>2</sub>-N), and nitrate nitrogen (NO<sub>3</sub>-N). Total Nitrogen (TN) is the sum of TKN, NO<sub>2</sub>-N and NO<sub>3</sub>-N.

AAA. “Nitrogen loading limit” means the maximum mass of Total Nitrogen, measured in grams, allowed in wastewater that is or will be discharged into the ground through an OWTS during a specified period. For the purposes of this Chapter, no new or expanded development



shall be approved when the OWTS discharge will exceed forty grams (40g) of Total Nitrogen per acre of land per day. For example: 0.5 acre parcel is limited to 20 grams Total Nitrogen discharge per day; 1-acre parcel is limited to 40 grams Total Nitrogen discharge per day; and a 2-acre parcel is limited to 80 grams Total Nitrogen discharge per day.

BBB. “Oil/Grease interceptor” means a passive interceptor that has a rate of flow exceeding fifty (50) gallons-per-minute and collecting oil and grease from wastewater.

CCC. “Onsite Wastewater Treatment System” (OWTS) means any of the following that use subsurface dispersal: individual wastewater systems, community collection systems, and alternative collection systems. The short form of the term may be singular or plural. OWTS do not include graywater systems. OWTS do not require a Certified Wastewater Operator to control the performance or outcome of one or more wastewater treatment processes.

DDD. “Onsite Treated Nonpotable Water Systems” (OTNWS) means a system that collects and treats nonpotable water that is intended to be used onsite and is suitable for direct beneficial use (as defined by California Plumbing Code (CPC) Section 217.0, as may be periodically amended). For the purposes of this Chapter, onsite treated nonpotable water systems shall include both gray water and rainwater systems.

EEE. “OWTS Policy” means 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, as may be amended from time to time.

FFF. “Pathogens” means disease-causing microorganisms whose presence is indicated by sampling wastewater for coliform bacteria.

GGG. “Percolation rate” means a unit to indicate the speed at which water moves through soil, usually reported in minutes per inch.

HHH. “Percolation test” means a subsurface test conducted to measure the absorption rate of water in soil strata. The test is conducted with clean water after an initial presaturation period, and test results are usually expressed in minutes per inch.

III. “Permeable rock” means decomposed granite, shale or other weathered bedrock formations. For the purposes of the LAMP and this Chapter, permeable rock may be considered a viable substrate to accommodate a dispersal system, provided stabilized percolation rates and vertical separation requirements to groundwater, pursuant to Table 4 of this Chapter, and an impervious layer, pursuant to Table 13 of this Chapter, have been met.

JJJ. “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 Chapter or the OWTS Policy.

KKK. “Primary dispersal system” means the first of two dispersal systems designed and installed as part of a new OWTS. A diversion valve is used to alternate the flow of wastewater effluent between a primary dispersal system and the secondary dispersal system, or other future dispersal systems.

LLL. “Primary treatment” means temporary holding of wastewater in a septic tank where heavy solids can settle to the bottom while oil, grease, and lighter solids float to the surface.

MMM. “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.

NNN. “Proprietary non-rock dispersal media products” means plastic leaching chambers, polystyrene bundles, subsurface drip dispersal piping, and other dispersal media alternatives to traditional pipe and gravel leachfield systems.

OOO. “Qualified professional” means an individual or business that is licensed or registered by the State of California to design, install, maintain and/or replace OWTS in Monterey County and to practice as a professional for other associated reports, as allowed under their license or registration. Qualified professionals must obtain an annual registration from the Health Department. “Qualified professionals” are more particularly described as and include the following:

1. “Qualified consultants”: qualified consultants conduct site evaluations, soil investigations and percolation testing. A qualified consultant shall be a registered California professional, including Civil Engineer, Registered Environmental Health Specialist, Professional Geologist, or Certified Engineering Geologist. At the discretion of EHB, a qualified installer with demonstrated experience with site evaluation and soil investigation may perform the duties of a qualified consultant for replacement OWTS only.
2. “Qualified designers”: qualified designers design an OWTS using information prepared by a qualified consultant. A qualified designer shall be a registered California professional, including Civil Engineer, Registered Environmental Health Specialist, Professional Geologist, or Certified Engineering Geologist. At the discretion of EHB, a qualified installer with demonstrated experience in OWTS design may perform the duties of a qualified designer for replacement OWTS only.
3. “Qualified installers”: qualified installers construct, modify, repair, replace, 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).
4. “Qualified service providers”: qualified service providers operate, maintain, and service alternative OWTS. A qualified service provider shall be an individual or business certified by an alternative OWTS manufacturer or proprietor to conduct operation, maintenance, and service activities for each

type of supplemental treatment or alternative dispersal system they service, or other qualified service provider as approved by the EHB.

PPP. “Repair” means either: (1) repairs to an existing OWTS dispersal system that are installed in a “like-for-like” configuration to maintain the design specifications and location of the dispersal field; or (2) patching cracks in a septic tank in a manner that does not degrade the structural integrity of the tank and does not allow wastewater to exfiltrate or allow groundwater to infiltrate the tank.

QQQ. “Replacement OWTS” means either a conventional or alternative OWTS that is installed to replace an existing OWTS that serves an existing building with plumbing because the system is no longer capable of receiving, treating, or dispersing wastewater as designed.

RRR. “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).

SSS. “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.

TTT. “Sand” means a type of soil particle or soil texture. As a soil particle, sand consists of individual rock or mineral particles in soils having diameters ranging from five-hundredths to two millimeters (0.05 - 2.0 mm). As a soil texture, sand is soil that is comprised of eighty-five percent (85%) or more sand particles, with the percentage of silt plus one and a half (1.5) times the percentage of clay particles comprising less than fifteen percent (15%).

UUU. “Sanitary sewer” means a system for collecting residential or municipal wastewater and directing the collected wastewater to a wastewater treatment facility prior to dispersal or reuse.

VVV. “Secondary dispersal system” means the second of two dispersal systems designed and installed as part of a new OWTS. A diversion valve is used to alternate the flow of wastewater effluent between a primary dispersal system and the secondary dispersal system, or other future dispersal systems.

WWW. “Secondary treatment” means wastewater treatment which removes dissolved and suspended biological matter. Secondary treatment is typically performed by indigenous, water-borne microorganisms in a septic tank or treatment tank. Secondary treated wastewater effluent shall meet five-day average concentration limits of thirty milligrams per liter (30 mg/L) for biological oxygen demand and thirty milligrams per liter (30 mg/L) for total suspended solids.

XXX. “Seepage pit” means a drilled or dug excavation, usually 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.

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

ZZZ. “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.

AAAA. “Shallow pressure-distribution trench” means a type of 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.

BBBB. “Silt” means a type of soil particle or texture. As a soil particle, silt consists of individual rock or mineral particles in soils having diameters ranging from between five-hundredths to two-thousandths of a millimeter (0.05 - 0.002 mm). As a soil texture, silt is soil that is comprised as approximately eighty percent (80%) or more silt particles and not more than twelve percent (12%) percent clay particles using the USDA soil classification system.

CCCC. “Soil” means the naturally occurring body of porous mineral and organic materials on the land surface, which is composed of unconsolidated materials, including but not limited to 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). For the purposes of this Chapter and the LAMP, soil shall contain earthen material of particles smaller than eight-hundredths (0.08) of an inch (2 mm) in size.

DDDD. “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.

EEEE. “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 (USDA).

FFFF. “Steep slope” means an area of land that inclines or declines six vertical inches or more per one horizontal foot, also referred to as fifty percent (50%) slope or greater.

GGGG. “Subsurface drip dispersal” means 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 eight to twelve inches below finished grade.

HHHH. “Subsurface perched water” means subsurface drainage or groundwater that has stagnated above or flows in a relatively thin sheet upon an impervious or low-permeability material, such as clay.

IIII. “Supplemental treatment” means a proprietary wastewater treatment device or system that has been designed and tested for use as an OWTS component to perform additional wastewater treatment functions, beyond primary treatment, and is capable of reliably producing wastewater effluent of secondary treatment quality or better, prior to discharge to the dispersal system.

JJJJ. “Tanks” means septic tank, supplemental treatment tank, or pump chamber tank.

KKKK. “Telemetric monitoring system” means a system with the capability to automatically measure and transmit OWTS data by wire, radio, or other means.

LLLL. “Total suspended solids (TSS)” means 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. In wastewater with high TSS, inorganics are less easily broken down and can accelerate mechanical clogging of the infiltrative surface of the dispersal system.

MMMM. “United States Department of Agriculture (USDA)” is a federal agency that develops and implements federal law related to agriculture and economic development. The USDA is also responsible for providing technical assistance for agricultural lands and has developed techniques for soil classification.

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

OOOO. “Wastewater” means sewage, gray water, and contaminated liquid waste substances associated with human habitation, including but not limited to sewage and/or gray water.

PPPP. “Wastewater Treatment Plant” means a facility that accepts wastewater from one or more sources and is designed to produce effluent that meets discharge standards set forth by the Regional Water Quality Control Board in Waste Discharge Requirements or a General Order. A wastewater treatment plant is sometimes referred to as a Sewage Treatment and Reclamation Facility, as in Chapter 15.23 of this Code. When a wastewater treatment plant includes subsurface dispersal, the dispersal system shall be subject to the standards of this Chapter.

QQQQ. “Watercourse” means either:

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 that consistently conveys water for more than three months out of the year, or is used by fish.

**15.20.040 - Flush toilets required.**

A. Except as provided by this Section, no person(s) shall use or maintain any building, structure, or place where people reside, congregate, or are employed unless it is equipped with an adequate number of flush toilets, as determined by the California Plumbing Code, supplied by a source of water. The source of water shall be plumbed in accordance with the standards of the California Plumbing Code and Title 18 of this Code, as each may be amended from time to time. The water source shall not include water which is transported by any manner of vehicle or container to the distribution system. The flush toilet shall be connected either to an OWTS complying with the standards specified in this Chapter or, when required by this Chapter, to an approved sanitary sewer system.

B. When the EHB has determined that installation of flush toilets with a connection to an approved sanitary sewer system or OWTS is not feasible, flush toilets shall not be required. In that case, unless otherwise determined by the Director to be detrimental to the environment or public health, the following alternatives to flush toilets may be used under the circumstances described below:

1. Haul away system:
  - a. For remote public restrooms (e.g. remote trailheads) maintained by a public agency, where there is no existing infrastructure to supply water, and it would be prohibitive to construct flush toilets; or
  - b. On a privately owned, existing lot of record where recycled water irrigation is in place and existing potable water infrastructure is not available within one thousand feet (1,000'); or
  - c. On a privately owned, existing lot of record, when a qualified professional has determined, with concurrence from the EHB and the Monterey County Building Official, that severe constraints have left no viable area to accommodate an adequate OWTS to serve an existing, legally established building with plumbing, and when all options for subsurface dispersal, including alternative dispersal systems, have been exhausted.
2. Privies or chemical toilets:
  - a. For construction sites pursuant to Health and Safety Code Section 5416, as may be amended from time to time; or

- b. For a mobile workplace (i.e. work crews that move from one worksite to another worksite) when the EHB has determined that a portable toilet is necessary to remain with the mobile work crews to protect the health and safety of the employees and/or the public pursuant to California Code of Regulations, Title 8, Sections 3360-3376, as may be amended from time to time; or
  - c. For sites where food crop growing and harvesting is occurring pursuant to Health and Safety Code Sections 113310-113360 and California Code of Regulations, Title 8, Section 3457, as may be amended from time to time; or
  - d. For publicly owned and operated facilities, such as buildings, parks, beaches, and recreation areas.
  - e. Privies or chemical toilets may be used for up to thirty (30) days per calendar year as follows:
    - i. For workplaces to provide an adequate number of toilet and handwashing facilities for temporary employees.
    - ii. For activities involving the assemblage of people, including but not limited to circuses, carnivals, festivals, picnics, barbecues, or races. When food will be available for consumption or sale, hand washing facilities with soap, water, and paper towels shall be provided.
3. For the purposes of subsection 2 of this Section, the following standards shall apply:
- a. No less than one chemical toilet per forty (40) persons. When flush toilets are also provided, the facility shall follow the standards specified by Section 422.1 of the California Plumbing Code and Title 18 of this Code, as each may be amended from time to time.
  - b. All toilets must be serviced and cleaned at least once per day. All toilets must be clean, sanitary, and serviceable at all times. Toilet paper must be provided at all times.
  - c. Chemical toilets shall be pumped at least once per day, or more often if necessary, by a liquid waste hauler registered to operate in Monterey County. Disposal of pumped waste must be at a site approved by the EHB. More frequent pumping may be substituted for the required number of toilets as follows:

- i. If toilets are pumped and emptied twice a day, one chemical toilet per eighty (80) persons shall be adequate.
  - ii. If toilets are pumped and emptied three times a day, one chemical toilet per one hundred twenty (120) persons shall be adequate.
- d. At least one hand wash basin, with soap, water, and paper towels, shall be provided per ten chemical toilets.

**15.20.050 - Connection to public sewers required.**

A. Any structure, containing plumbing, where people reside, congregate, or are employed shall be connected to an approved sanitary sewer when a sewer main is located within three hundred feet (300') of the structure and when the parcel on which the structure is located abuts the road, street, or alley where the sewer main has been installed. This requirement shall not apply, and the structure shall be connected to an approved OWTS or implement an alternative specified in Section 15.20.040 of this Chapter when:

1. Such building or structure is connected to an OWTS which is functioning in a lawful manner. A system that requires the contents of the septic tank to be pumped three times per year or more frequently to prevent overflow or other malfunction shall be conclusively presumed to be not functioning in a lawful manner; or
2. The owner of the sewer refuses to permit such connection and/or the Monterey County Local Agency Formation Commission does not approve annexation into the service area; or
3. The owner of the property is unable after the exercise of all diligence to obtain any easement necessary for the connection pipe; or
4. For replacement OWTS only, when the connection fees and installation cost are greater than two times the total estimated cost of the replacement OWTS, be it a conventional or alternative OWTS, whichever type of system is deemed necessary by a qualified professional to comply with the minimum standards of this Chapter, and the continued use of OWTS on the property will not impact groundwater or surface water to a degree that makes it unfit for drinking or other uses as determined by EHB.

**15.20.060 – Application requirements for OWTS installation permits.**

A. Except when a privy is permitted by this Chapter, no person shall do any of the following without first obtaining an OWTS installation permit from the EHB:

1. Commence the construction, installation, or emplacement of any building or structure or mobile home where people reside, congregate, or are employed, unless the structure will be connected to a sanitary sewer system.



2. Excavate for, construct, or otherwise install or emplace an OWTS tank, dispersal system, or any part thereof.
3. Repairs, as defined by this Chapter, shall be exempt from requiring an OWTS installation permit but will require written notification to EHB prior to starting work. Such notification shall be completed on an approved form and submitted for EHB review and acceptance at least forty- eight (48) hours before moving equipment on site. EHB reserves the right to inspect the work in progress and determine compliance with this Chapter.

B. An application for a new, expansion, or replacement OWTS shall be in writing, on an EHB-approved form. The application shall be signed by the owner of the property, or his or her authorized agent together with written agent authorization, and shall be accompanied by payment of applicable fees as adopted by the Board of Supervisors. An OWTS Feasibility Report shall be submitted with the application and shall contain the following information:

1. Subject property's street address and Assessor's Parcel Number;
2. Copy of most recent grant deed with the property's legal description;
3. Associated project number from the County of Monterey Housing and Community Development Department (HCD), if applicable;
4. Acreage of the subject property;
5. Water source(s) for subject property;
6. Description of the proposed project, or for replacement OWTS, description of existing conditions;
7. Qualified professionals associated with the OWTS project;
8. Estimated daily volume of wastewater generation;
9. A determination, by a qualified professional, that nitrogen loading meets minimum standards, or a Nitrogen Loading Assessment that determines the proportionate quantity of nitrogen loading for the property and verifies that the proposed OWTS will not exceed the that determined value;
10. Information as to whether the subject property is located within a Potential Aquifer Recharge Area, as identified in the LAMP and County GIS Data;
11. Summary of site evaluation activities, including:
  - a. The name of the person performing test and their license or registration number;
  - b. Date or period of testing;

- c. A summary of soil profile analysis, including but not limited to:
    - i. Thickness, depth and texture of soil layers encountered;
    - ii. Depth to bedrock, hardpan or impervious layer;
    - iii. Evidence of soil mottling or gleying;
  - d. Summary of absorptive characteristics of soil, either by direct inspection or percolation testing, with raw data and/or field logs included as exhibit;
  - e. Depth to groundwater as determined by direct observation and/or the highest extent of soil mottling;
  - f. Other conditions affecting the potential use of the soil for sewage disposal, including but not limited to the evidence of roots, fissures, and dampness;
  - g. Conclusions and recommendations that specifically state whether the proposed OWTS (or proposed lots of record, in the case of new subdivisions of land) meet(s) the standards in this Chapter and the LAMP. Specific recommendations shall be made about the location and design of the OWTS(s), including soil application rate for each dispersal system area.
12. A summary of conformance or non-conformance with horizontal and vertical setback requirements for conventional OWTS;
13. An elevation of house sewer outlet and proposed elevation of septic tank and dispersal system(s);
14. A site plan scaled no less than one inch (1") equals forty feet (40'), showing the location of:
- a. Property lines and all recorded easements; and
  - b. All existing and proposed structures and hard surfaces, such as patios, driveways, walkways, etc.; and
  - c. Existing wells or wells proposed as part of the project, whether domestic or irrigation, and whether in use or abandoned, either on the property or within one hundred feet (100') of the property lines of the property; and
  - d. Existing trees within twenty feet (20') of septic system with a note indicating whether they are proposed to be removed or remain in place; and
  - e. Existing or proposed embankments with slopes exceeding thirty percent (30%) or any existing or proposed downhill cuts whether natural or humanmade. Any proposed humanmade cuts or excavations depicting

height, length and/or area must also be shown (e.g. road cuts, pool/spa excavations, basements, pad cuts, etc.); and

- f. Surface water bodies on the property and within two hundred feet (200') of the property lines of the property; and
- g. 10-year flooding elevation, determined or estimated from published flood maps or on the basis of historical evidence acceptable to the Director; and
- h. Existing OWTS on the property; and
- i. Proposed OWTS; and
- j. All applicable horizontal setbacks.

15. Such other information as the Director determines is necessary to process the application.

C. Application for a septic tank demolition permit does not require a comprehensive OWTS feasibility report but shall be submitted with a site plan scaled at one inch (1") equals forty feet (40') or larger.

D. Applications for alternative OWTS with a supplemental treatment unit and/or alternative dispersal system shall also include engineered plans for the system prepared and signed by a qualified designer. Engineered plans will be reviewed by the EHB. When a proposed alternative OWTS does not meet one or more of the standards specified by Tables 8, 11, 12 and 13 of this Chapter (Max Slope of Dispersal Systems, Effluent Limitations, Vertical GW for Alt OWTS, Minimum Soil Depth), the EHB may refer the plans to the Central Coast Regional Water Quality Control Board staff and/or an external third-party consultant(s) for additional review, at the applicant's expense.

E. Applications for OWTS shall remain valid for one year from the date the OWTS application was received. When the applicant demonstrates that the applicant has actively pursued the permit application (e.g., submission of revised or outstanding information) and requests an extension of the application, EHB shall extend the application for one additional year.

F. EHB shall approve an OWTS installation permit when EHB has received a complete application, the applicant has paid all application fees, and EHB has determined that the design complies with all applicable standards of this Chapter. If a discretionary permit is required by Titles 20 or 21 of this Code for proposed development and that development is proposed to be served by OWTS, then the applicant shall obtain the necessary permit from the County prior to EHB issuance of an OWTS installation permit.

G. An OWTS installation permit shall expire and become null and void if any work authorized thereby is not installed or completed within two years from the date of issuance. Upon expiration of the permit, no further work shall be done until a new OWTS permit has been obtained or the EHB has reinstated the OWTS installation permit. This requirement shall not

apply when an OWTS permit is issued concurrently with a construction permit from the County. Such an OWTS permit shall not expire so long as the associated construction permit remains valid in an active, issued status. In the event the corresponding construction permit expires and the OWTS installation permit was approved more than two years prior to the expiration of the construction permit, the OWTS permit shall expire and become null and void.

H. An application to reinstate an expired OWTS installation permit shall be filed in writing, on an EHB-approved form signed by the owner of the property or his or her authorized agent, accompanied by payment of applicable fees as adopted by the Board of Supervisors, together with such other information as the Director determines is necessary to process the application.

I. Prior to reinstatement of an expired OWTS installation permit, the EHB shall determine if additional OWTS feasibility analysis and/or an updated design is required for the system to conform with this Chapter and the LAMP.

J. Reinstated OWTS installation permits shall remain valid for a period of one additional year from the date of reissuance.

K. Installation permits approved for alternative OWTS are subject to the same expiration and renewal time frames for conventional systems as specified in this Chapter for conventional OWTS.

L. When an OWTS installation permit is issued concurrent with a construction permit from the County, the applicant shall notify the EHB, in writing, of any proposed subsequent revision to construction permit plans, including changes to floor plan, footprint or location, or a change of use that will increase wastewater generation. The EHB shall determine if the approved OWTS design is sufficient or if the OWTS installation permit requires an amendment to meet the minimum standards of this Chapter and the LAMP.

M. An OWTS installation permit amendment is required when an applicant intends to alter any of the following design criteria of a previously issued OWTS installation permit:

- a. Wastewater volume;
- b. Wastewater strength;
- c. Method of wastewater dispersal; or
- d. Dispersal system location.

N. An application to amend an approved OWTS installation permit shall be filed in writing, on an EHB-approved form signed by the owner of the property or his or her authorized agent, together with such other information as the Director determines is necessary to process the application. The application fee will be based on staff hours required to complete the review of the application materials and conduct a site inspection, charged at the current hourly rate as adopted by the Board of Supervisors.

O. In the case of obtaining a retroactive OWTS installation permit under this Chapter when an OWTS has been installed without permits:

1. The applicant must submit to the EHB for review and acceptance the following information, including but not limited to:
  - a. OWTS Feasibility Report, meeting the standards of this Chapter;
  - b. Receipts for components and/or materials;
  - c. Unearthing the OWTS component(s) and distribution piping;
  - d. Video-televising the system (also referred to as a “snake and locate”);
  - e. Performance Evaluation of the installed OWTS, with such evaluation to be prepared by a third party, registered qualified professional;
  - f. Diagram of the installed OWTS prepared by a third party, registered qualified professional;
  - g. Written acknowledgement, signed by the property owner, indicating that the OWTS was installed without a permit and was not subject to inspection by EHB; and
  - h. Such other information as the Director may require to evaluate the application.
2. The EHB shall evaluate the application and the evidence to determine if the OWTS requires modification, is eligible to remain in use as installed, or must be partially or completely abandoned.

**15.20.070 – Application requirements for OTNWS installation permits.**

A. All new onsite treated nonpotable water systems (OTNWS), or any part thereof, and all repairs to existing systems, or any part thereof, shall comply with the standards and design specifications set forth by the California Plumbing Code and Title 18 of this Code, as each may be amended from time to time.

B. A plumbing permit shall be obtained from the County prior to installation of the system unless said system meets the definition of a clothes washer system, as defined by Chapter 15 of the California Plumbing Code, as may be amended from time to time. EHB shall review the OTNWS design prior to issuance of the plumbing permit and determine if an operating permit will be required based on the features of the system and proposed use of the treated nonpotable water.

C. Installation of a OTNWS shall be completed in accordance with Section 15.20.120 of this Chapter.

**15.20.080 – Site evaluation standards.**

A. Site evaluation means an assessment of a property’s soil characteristics, including soil profile analysis and absorptive characteristics, topography, and groundwater level. A comprehensive site evaluation shall be completed by a qualified professional that provides sufficient information to identify suitable locations to accommodate the primary, secondary, and future dispersal systems.

B. Site evaluation is required for proposed subdivisions that propose use of OWTS for wastewater disposal and for proposed new OWTS on existing lots of record. The site evaluation must meet the standards listed below:

1. Soil profile analysis shall be completed for the primary, secondary, and future dispersal areas in accordance with methods approved by the Director.
2. Percolation testing shall be completed for the primary, secondary, and future dispersal areas to assess the absorptive characteristics of the soil in accordance with methods approved by the Director.
3. A minimum of one deep monitoring boring or excavation is required to demonstrate the minimum vertical distance to groundwater and an impervious layer as specified by Tables 4 and 13 of this Chapter, respectively.
  - a. When the deep boring will remain in place for more than seventy two (72) hours to provide for monitoring of the groundwater level over time, a monitoring well permit shall first be obtained from the County and the boring shall be constructed in accordance with the standards of that permit and Chapter 15.08 of this Code.
4. EHB may reduce the requirements for soil profile analysis and percolation testing when the qualified professional demonstrates that conformity to a given soil type can be established to the satisfaction of the EHB.
  - a. For proposed subdivisions, at least one soil profile excavation or boring and percolation test shall be completed for each proposed lot to identify suitable dispersal system locations and future dispersal system areas on each parcel. Alternative OWTS or gravel-filled seepage pits shall not be used to demonstrate OWTS feasibility for new subdivisions. The site evaluation shall be completed prior to approval of the tentative map or tentative parcel map. In order for the County to approve OWTS for wastewater disposal for the proposed subdivision, the site evaluation must demonstrate that the use and installation of OWTS meeting the standards of this Chapter are feasible.

C. Site evaluation for replacement or expansion OWTS that serve existing building(s) with permitted plumbing must meet the standards listed below.

1. Soil profile analysis for the proposed dispersal area shall be completed in accordance with methods approved by the Director.

2. Assessment of absorptive characteristics shall be completed using either direct inspection or percolation testing for the proposed dispersal area in accordance with methods approved by the Director.
3. A minimum of one deep monitoring boring or excavation is required to demonstrate that the minimum vertical distance to groundwater and an impervious layer can be met as specified by Tables 4 and 13 of this Chapter.
  - a. When a groundwater monitoring boring of any depth is proposed to be installed to observe groundwater levels over time and will remain in place for more than seventy two (72) hours, a separate monitoring well permit shall first be obtained from the County, and the boring shall be constructed in accordance with the standards of the permit and Chapter 15.08 of this Code.

D. When seasonally high groundwater or subsurface perched water is suspected by the EHB based on the installation and use of alternative OWTS to overcome high groundwater on a property located within one thousand (1,000) feet of the subject property, wet-weather testing shall be performed. These tests shall be performed during the time when perched water or when high groundwater levels would be expected. Wet weather testing must be performed in accordance with methods approved by the Director.

1. When wet-weather borings will remain in place for an extended period, such as the duration of wet weather testing, a monitoring well permit shall first be obtained from the County.
2. The qualified professional shall perform all work in a safe and skillful manner in compliance with all applicable laws and regulations. All work that is required by law to be performed or supervised by licensed personnel shall be performed in accordance with such licensing requirements.

E. A site evaluation summary report shall be submitted to the EHB upon completion of testing. Such report shall include the site plan scaled no less than one inch (1") = forty (40') feet, updated to reflect the actual location of all borings, excavations and/or monitoring wells. The Assessor's Parcel Number(s) shall be placed on both the map and the reports. The report shall contain the following information:

1. Assessor's Parcel Number(s);
2. Associated Housing and Community Development (HCD) – Planning or Building Project Number;
3. Date or period of testing;
4. Soil logs, and when applicable, percolation test results;
5. The name of the person performing the test and their license and registration number; and

6. Conclusions and recommendations which specifically state whether the lot(s) meet(s) the standards found in this Chapter and the LAMP. Specific recommendations shall be made about the location and design of the OWTS(s), including soil application rate.

F. To determine if minimum vertical setbacks to groundwater will be maintained for the proposed OWTS, monitoring for a stabilized groundwater elevation shall be required during the site evaluation. The minimum depth of a groundwater monitoring boring or excavation is dependent on the absorptive characteristics of the soil.

1. Because soil moisture and groundwater do not always immediately flow into a test boring, EHB may require a minimum of twenty-four (24) hours to pass before an accurate groundwater measurement is taken. If groundwater is immediately observed after drilling or digging, the EHB shall be notified, and the groundwater measurement shall be taken no sooner than twenty-four (24) hours later. All holes shall be adequately covered to preclude any safety hazard.
2. When an existing alternative OWTS, with supplemental treatment, has been installed within five hundred feet (500') of the project property to overcome an insufficient vertical groundwater separation, EHB may require wet weather monitoring during the site evaluation for the proposed OWTS, with such monitoring to be performed in accordance with the methods approved by the Director.

G. Site evaluations shall include slope stability analysis when required by this Chapter. The slope stability analysis shall be completed by a California registered professional engineer or geologist, in conformance with California Division of Mines and Geology standards. The report shall specify all formulas, methods, and assumptions used by the geologist or engineer and include the following:

1. Certification that installation of the proposed OWTS will not contribute to failure of the slope causing earth movement or landslide and will not adversely affect water determination of the maximum contour loading rate;
2. Analysis of impact to slope stability due to effluent and irrigation water;
3. Assessment of stability of any structures on the project parcel(s) and any adjoining parcels at a lower elevation than the proposed OWTS;
4. Proof to the satisfaction of the EHB that leachate will remain subsurface;
5. A detailed grading map, including stabilization or mitigation plans during the development of the slope;
6. Cross sections of slopes, including stabilization or mitigation plans (generalized sections will not be accepted). These cross sections must represent the entire slope, width, height, and length;



7. Results of soil sampling and percolation testing that provide data representative of the entire disposal area and proof to the satisfaction of the EHB that conditions are uniform below the entire disposal area. The minimum testing requirements are:
  - i. Two soil profile borings that extend five feet (5') beyond the proposed trench depth;
  - ii. Two percolation tests at a depth equal to the proposed trench depth;
  - iii. Two percolation tests five feet (5') below the proposed trench depth; and
  - iv. Percolation testing must show rates of ninety (90) minutes per inch or less.

H. The qualified professional shall submit a workplan to the EHB for review and acceptance by EHB prior to the qualified professional starting site evaluation activities when the proposed subsurface disposal or OWTS will be associated with the following:

1. A commercial operation or congregate housing facility that will generate more than one thousand (1,000) gallons of domestic wastewater per day; or
2. A new or expanded dispersal system for a wastewater treatment facility; or
3. A proposed subdivision of land; or
4. Installation on slopes greater than fifty percent (50%).

I. The EHB shall notify the qualified professional in writing of any required changes, and the qualified professional shall revise and resubmit the workplan as necessary. When the workplan is acceptable, the EHB shall notify the qualified professional in writing that the workplan is acceptable and confirm the date that site evaluation activities may commence.

J. For projects that require Report of Waste Discharge, as described in the OWTS Policy, the EHB will confer with Central Coast RWQCB to determine if the workplan is acceptable and to establish which agency will have authority to issue permits for the proposed wastewater discharge and notify the applicant accordingly in writing.

#### **15.20.090 - Design specifications for OWTS.**

A. OWTS for single family dwellings and accessory dwelling units shall be designed in accordance with Table 6 of this Chapter.

B. OWTS that will receive domestic wastewater associated with commercial, multi-unit residential, industrial, or institutional uses shall be estimated in accordance with Table 7 of this Chapter. Alternatively, if acceptable to EHB, the qualified professional may use estimates based on empirical data from existing, similar uses, or from standards of accepted good practice recognized by state and federal authorities. When empirical data are utilized, the average daily

flow shall be doubled to provide a safety factor of two. All OWTS shall be designed in consideration of maximum daily volume of wastewater, not the average.

1. The liquid capacity of septic tanks proposed to serve structures that include multi-unit residential occupancies (such as multi-unit housing, congregate housing, or mixed-used development) shall be at least three times the maximum anticipated daily volume of wastewater. The liquid capacity of septic tanks for commercial, industrial, and institutional buildings shall be a minimum of one thousand (1,000) gallons and at least two times the maximum anticipated daily volume of wastewater.

C. OWTS tanks (including septic tanks, supplemental treatment units, and pump chambers) shall be designed and located to meet the following requirements:

1. Tanks shall be located on a site so that the lids will remain accessible for pumping.
2. When a tank is proposed to be installed beneath an area that will be subject to vehicular traffic, either the tank must be rated to withstand such conditions, or the installation must be engineered to support the additional weight.
3. A two-way sewer line cleanout, with riser to the surface, located two feet (2') in front of the inlet end of the septic tank will be required to be installed on all OWTS, unless manhole risers are otherwise provided for. The clean-out riser must extend at least six inches (6'') above the ground and be capped to be gas-tight unless another means of effectively locating the septic tank is approved by the EHB.
4. An inline effluent filter, capable of at least one sixteenth inch (1/16'') filtration, shall be installed in the outlet tee of any septic tank associated with a new, replacement, or expansion OWTS, including dispersal system-only replacements.
5. Tanks shall be installed as shallow as practical and be covered by at least six inches (6'') of soil. When a septic tank or pump chamber must be placed deeper than six inches (6'') below finished grade, then each compartment shall be fitted with watertight risers that extend to within six inches (6'') of finished grade.
  - a. Manhole risers shall be watertight and of a size sufficient for removal of the tank lids.
  - b. Regardless of the depth of the tank, manhole risers are required to be installed under either of the following circumstances:
    - i. When a tank is proposed to be installed beneath an impermeable surface, then each compartment shall be fitted with watertight risers that extend to finished grade. Traffic-rated lids shall be required in areas subject to vehicular traffic; or

- ii. When the OWTS will serve commercial, multi-unit residential, industrial, or institutional uses, watertight risers that extend to finished grade shall be installed on each compartment of the tank(s).

D. The following standards shall apply when a pump will convey untreated wastewater from a structure to a septic tank or supplemental treatment tank, or to convey effluent to a dispersal system:

1. A pump shall not be installed in the outlet compartment of a septic tank and shall require a separate chamber (compartment). This requirement shall not apply to:
  - a. A supplemental treatment system that has been designed and tested to meet performance standards with the pump incorporated within the unit; or
  - b. A pump system that will be telemetrically monitored.
2. The capacity of a pump chamber shall be no less than three hundred (300) gallons and shall have surge capacity above the high-water float level equal to at least one hundred percent (100%) of the estimated daily wastewater generation volume.
  - a. The qualified professional may propose a reduced pump chamber capacity for review and approval by the EHB when the system will be telemetrically monitored and subject to an annual operating permit from the EHB.
3. All pump chambers shall be equipped with an audible and visual alarm to alert when the high-water level in the pump chamber is reached.
4. In areas subject to interruption of power, the pump chamber shall be sized to allow for a holding capacity equivalent to a minimum of three days flow or an emergency disposal field must be installed.
5. Macerating (grinder) pumps shall not be allowed.
6. Any pump chamber (e.g., lift station, ejection basin) preceding a septic tank shall require a construction permit from the County and shall meet the specifications of the California Plumbing Code, Section 710.3, Sewage Ejector and Pumps, and Title 18 of this Code, as each may be amended from time to time.
7. When pumping of raw sewage cannot be avoided, the qualified professional shall incorporate additional design measures if reviewed and approved by the EHB to mitigate negative effects (e.g. surging and turbulence) on overall treatment system performance. Options that may be considered include but are not limited to:
  - a. Pumping to a gravity feed sewer some minimum distance upstream of the septic tank instead of directly into the septic tank;

- b. Installation of an inlet baffle in the septic tank to deflect the inlet discharge;
- c. Installation of a septic tank with greater capacity;
- d. Installation of a surge tank prior to the septic tank; and
- e. Installation of multiple septic tanks in series, or compartmented septic tanks.

E. No permit shall be approved for a new or expansion OWTS, unless, in addition to the other requirements of this Chapter, it complies with all of the following provisions:

1. The infiltrative capacity of the dispersal system shall not be less than the number of square feet calculated using the following formula:

$$\text{Infiltrative Capacity} = \frac{\text{Estimated Wastewater Generation (in gallons, pursuant to Table 6 or 7)}}{\text{Soil Application Rate (gallons per square foot of dispersal system per day)}}$$

2. The infiltrative area of the sidewall and/or bottom of a dispersal system shall be limited to four square feet (4ft<sup>2</sup>) per linear foot.
  - a. When a qualified professional demonstrates that an existing lot of record is constrained by existing conditions (e.g. structures, steep slopes, or trees), a replacement dispersal system may be eligible for up to ten square feet (10ft<sup>2</sup>) of infiltrative area per linear foot of trench.
  - b. No limit on infiltrative area shall apply, as calculated using sidewall area only, when an OWTS includes supplemental treatment that meets the standards specified by Table 11 of this Chapter.
3. The infiltrative capacity of a dispersal system shall be calculated using sidewall area only, except:
  - a. When a trench is thirty six inches (36'') inches wide, the bottom of the trench may also be included as an infiltrative surface.
  - b. For bed systems, the sidewall areas and bottom of the bed may both be included as an infiltrative surface.
  - c. For gravel-less chambers, the chamber open area width and louvered sidewall height shall both be included as infiltrative surface.
4. Leach fields shall be designed to meet the following standards:

- a. The bottom of a leach field dispersal trench shall be between eighteen inches (18") and thirty six inches (36") wide.
  - b. The depth of rock below the perforated distribution pipe (infiltrative depth) shall be at least one foot (1').
  - c. Total trench depth shall not exceed ten feet (10') unless a supplemental treatment system, including nitrogen reduction, has been incorporated into the OWTS.
  - d. Separation between leachfield dispersal systems and individual trenches within a dispersal system shall be measured sidewall to sidewall and be at least equal to the trench width or two times the effective depth of the trench, whichever is greater.
    - i. An additional one foot (1') of separation between dispersal system trenches is required for each five percent (5%) increase in slope when the average slope of the dispersal system area exceeds thirty percent (30%).
5. Shallow pressure distribution trench systems, including bed dispersal systems, shall also be designed to meet the following standards:
- a. Bed dispersal systems shall be pressurized to ensure even distribution throughout the dispersal system.
  - b. Separation between bed dispersal systems shall be measured sidewall to sidewall and be at least eight feet (8').
6. The excavation for conventional dispersal systems (rock-filled leachfields or beds) shall be filled with clean rock of an average diameter not less than one and one half inches (1 ½") nor more than two and one half inches (2 ½"), added to a depth of two inches (2") above the drain line. No rock with a high percentage of fines shall be used (i.e. greater than fifty percent (50%) percent passing a Number 200 sieve). Untreated building paper, or a suitable substitute that meets the approval of the EHB (e.g. filter fabric), shall be used to cover the rock, and there shall be a minimum backfill of one foot (1') of earth over the building paper.
7. Pipe in the dispersal system shall have a slope of not more than two inches (2") per one hundred feet (100') and shall be carefully placed to ensure even distribution of effluent along the leachfield trench or bed.
8. Plastic leaching chambers are a conventional method of OWTS dispersal and shall be designed in accordance with the manufacturer's recommendations.
- a. The qualified professional may specify a reduction in minimum infiltrative area required when plastic leaching chambers will be utilized, in accordance with the infiltrative capacity reduction approved by the EHB.

9. Individual wastewater dispersal lines shall not exceed one-hundred feet (100') in length and shall be capped at the end.
  - a. Each individual trench in a dispersal system shall be constructed with a permanent inspection port at the terminal end of the trench which allows for monitoring of the effluent level for the full depth of the system. Each riser must extend from the bottom of the dispersal field to at least one foot (1') above the surface of the ground and be capped, or the riser may be terminated within six inches (6") below grade provided a valve box is installed to allow permanent access to the riser.
  - b. Tracer wire shall be laid along the length of each individual trench or around the perimeter of a bed system.
    - i. When a dispersal system consists of trenches that do not curve or bend and inspection ports have been installed at the beginning and end of each trench, respectively, this requirement shall not apply.
10. When a dispersal system is comprised of multiple trenches, a properly constructed distribution box or equalization device shall be installed to maintain equal flow to each trench. The distribution box or equalization device must be approved by the EHB and shall be placed outside the leaching area to ensure that settling does not occur.
  - a. A concrete pad may be required to be installed under the distribution box or equalization device when soil conditions could cause uneven settling of backfilled soil. The EHB may require the applicant to submit plans and specifications prepared and signed by a California licensed civil engineer for such a pad.
  - b. Distribution boxes and equalization devices shall be accessible and constructed with watertight risers brought to or within six inches (6") of finished grade.
11. Minimum cover over wastewater dispersal pipelines in conventional OWTS is fourteen inches (14"), consisting of two inches (2") of rock/gravel and untreated building paper/straw/geotextile fabric and at least twelve inches (12") of soil backfill.
  - a. Soil cover requirements must also conform to those allowed by the manufacturer of any gravel-less/chamber design.
12. When conventional dispersal systems are used on sloping ground, the following additional design and installation procedures shall be followed:
  - a. The bottom of the leach field trenches and the field disposal line shall have a slope of not more than two inches (2") per one hundred feet (100').

- b. The trenches shall follow the surface contours of the ground to minimize variations in trench depth.
  - c. Backfill may be increased to accommodate the slope of the ground and provide for adequate fall in the distribution and dispersal system piping, if approved by the EHB and provided that the total depth of the trench conforms with the requirements of this Chapter.
- 13. OWTS dispersal systems are prohibited in areas where the natural ground slope exceeds the value identified in Table 8 of this Chapter unless a slope stability analysis report demonstrates, to the satisfaction of the EHB, that the installation and ongoing use of the dispersal system(s) will not contribute to failure of the slope causing earth movement or landslide.
  - a. A slope stability analysis including additional soil testing shall be required under this Section when a dispersal system is proposed to be:
    - i. Installed in an area where the slope is thirty percent (30%) percent or more, and the minimum setback to an impervious layer pursuant to Table 13 of this Chapter cannot be met; or
    - ii. Installed in an area where the slope does not conform to Table 8 of this Chapter; or
    - iii. Located closer to a steep slope than the minimum setback specified by Table 3 of this Chapter.
  - b. EHB may require third party review of the slope stability analysis report, subject to applicable review fees at the expense of the applicant.
- 14. If the dispersal field is to be installed in an area subject to vehicular traffic, the septic system shall be reinforced to assure that components of the system will not be damaged by vehicular traffic and the components of the OWTS will not adversely affect the structural integrity of the vehicle traffic area. Site-specific engineering that considers the anticipated vehicle load and traffic distribution shall be required.
  - a. For residential OWTS, a qualified professional may elect to incorporate measures that will protect the OWTS and the vehicle traffic area in lieu of site-specific engineering. Use of these proposed measures will be subject to review and approval by the EHB.
- 15. New, expansion, or replacement OWTS dispersal systems shall not be covered by an impervious surface unless supplemental treatment is incorporated into the system to meet the effluent quality standards specified in Table 11 of this Chapter. Permeable concrete (e.g., porous concrete, no fines concrete, or porous pavement) shall be allowed to cover a dispersal system.

16. When an existing dispersal system that is covered by an impervious surface is proposed to accept additional wastewater due to a change in the structure or use of property (e.g. building remodel or addition, or a commercial change of use), a qualified professional shall first verify that the dispersal system is eligible to remain in use per Table 10 of this Chapter. If the dispersal system will remain in use, then the qualified professional shall recommend an appropriate supplemental treatment unit to reduce TSS, BOD and TN as required for the specific site conditions.
17. When the distance between the building with permitted plumbing and the tank, or the tank and the dispersal system, exceeds fifty feet (50'), a two-way cleanout shall be installed, and one additional two-way cleanout shall be installed per one-hundred feet (100') of unperforated distribution piping.
18. A dispersal system shall be installed in native soil or engineered fill, as recommended by the qualified designer.

F. No permit shall be approved for the replacement of an OWTS dispersal system for an existing OWTS, unless it also complies with the standards of this Chapter with the following exception:

1. A replacement OWTS that is proposed to serve existing development that lacks sufficient area for an appropriately sized system to be installed and where the qualified professional has demonstrated, to the satisfaction of the EHB, that there will be no anticipated groundwater or surface water contamination or otherwise be detrimental to public health or safety, shall be authorized to install a dispersal system of the maximum practicable square footage that is otherwise consistent with the standards of this Chapter. The EHB will require a deed restriction that describes the limitations of the OWTS to be recorded on the property on a form approved by the EHB and at the property owner's expense, prior to final approval of the OWTS installation. Future development that will result in an increase in the anticipated volume or strength of wastewater generated will be prohibited unless the OWTS is concurrently expanded or replaced to meet the current standards.

**15.20.100 - Additional design specifications for alternative OWTS.**

A. An alternative OWTS shall be required for the replacement or expansion of any existing OWTS and to support new development on an existing lot of record when conventional OWTS cannot dispose of sewage in a sanitary manner compliant with the standards of this Chapter. When use of a conventional OWTS is feasible, the property owner may elect to utilize an alternative OWTS. The alternative OWTS shall be designed to provide equal or greater protection to public health and the environment than a conventional OWTS.

B. Supplemental treatment is required to be incorporated into an OWTS design when the conventional OWTS standards of this Chapter cannot be met or when an alternative dispersal system necessitates clarified effluent to prevent clogging of the system. Alternative OWTS must comply with the specific requirements set forth in this Chapter and the LAMP.



C. Supplemental treatment systems shall be capable of meeting the effluent constituent limitations specified by Table 11 of this Chapter.

D. All proprietary treatment units shall be tested and certified by an independent testing organization such as the NSF, to provide secondary or better effluent quality. Part of the testing must include an evaluation of the system's effectiveness in reducing TSS, BOD, and TN. Any supplemental treatment system shall be listed by the testing organization and under the appropriate material testing standard before being considered for permitting. Applicable standards for supplemental treatment system performance include, but are not limited to:

1. NSF Standard 40 - Residential: Onsite Systems.
2. NSF Standard 245- Nitrogen Reduction.

E. The tank of a supplemental treatment system shall include a sample tap on the dosing discharge line, or other suitable location as agreed upon by the EHB, for effluent sampling.

F. Alternative dispersal systems. The alternative dispersal systems listed below may be approved for use subject to compliance with the siting and design criteria specified by this Chapter.

1. At-grade;
2. Mound;
3. Raised sand filter bed;
4. Seepage pit;
5. Subsurface drip dispersal; or
6. Other alternative dispersal systems approved by the Director and Central Coast Regional Water Quality Control Board.

G. Alternative OWTS shall be subject to the same siting criteria, design and installation requirements specified in this Chapter for conventional OWTS, except as specified below.

1. Horizontal setbacks. Horizontal setback distances for alternative dispersal systems should be the same as those specified for conventional septic tanks and dispersal systems in Table 3 of this Chapter to the greatest extent feasible. The qualified professional designing the alternative OWTS shall indicate how the proposed alternative OWTS component(s) will allow for a horizontal setback reduction without compromising water quality and/or public health, and the proposal shall be subject to review and approval by the EHB.

2. The vertical distance between the bottom of the dispersal system of an alternative OWTS and bedrock or an impervious layer shall conform with the minimum separation specified by Table 13 of this Chapter.
  - a. Additional soil depth requirements may be imposed by EHB based on system size (i.e., volume of wastewater flow) or site conditions or geographic locations to prevent groundwater mounding or surfacing effluent.
3. The vertical distance between the bottom of the dispersal system of an alternative OWTS and groundwater may be reduced from the requirements that apply to conventional OWTS as specified by Table 12 of this Chapter. The reduction of this vertical setback to groundwater is subject to review and approval by EHB.
  - a. In all cases where the vertical groundwater setback for an OWTS specified by Tables 4 and 5 of this Chapter cannot be met, the owner shall be required to install a permanent monitoring well and will be subject to all permit and construction requirements specified by Chapter 15.08 of this Code. A separate monitoring well permit is required to be obtained from the County, subject to applicable fees. The monitoring well shall be covered with an appropriate cap to prevent infiltration of surface water.

H. Areas of flooding. New or expansion alternative OWTS shall not be located in areas subject to flooding as defined by the limits of the 10-year floodplain, determined or estimated from published flood maps or based on historical evidence acceptable to the EHB. On existing, developed lots of record, a replacement alternative OWTS with supplemental treatment for nitrogen reduction may be installed in areas known to be below the 10-year floodplain only when no other viable area exists on the property. The system shall be located and designed to avoid contamination of or damage from inundation by floodwaters during a 10-year flood event to the extent feasible. Mitigation measures shall include but are not limited to the following:

1. Protecting OWTS supplemental treatment, pressure distribution and/or drip dispersal components from flood damage using structural tie-downs and/or elevating any component that is susceptible to water damage above the 10-year flood level;
2. Preventing discharge of wastewater into flooded dispersal areas from pump systems (e.g., using flood-activated float switches to override/disable pump operation during high water conditions); and
3. Providing additional emergency storage capacity for flood periods.

I. Ground slope. The maximum ground slope for different types of alternative wastewater dispersal systems shall be as specified by Table 8 of this Chapter.

J. All wastewater discharged to a subsurface drip system shall receive supplemental treatment. Subsurface drip dispersal systems are subject to the same siting, design and installation requirements as specified in this Chapter for conventional OWTS, except as specified below:

1. Horizontal setbacks for subsurface drip systems shall be the same as for conventional dispersal fields except that they may be reduced to two feet (2') from structures and property lines.
2. Drip fields shall not be placed in fill material unless the fill material has been specifically engineered for that purpose. The drip fields shall also be installed as level as possible and parallel to elevation contours.
3. Soil cover shall be at least six inches (6"). Fill material may be placed over the drip lines in order to meet the minimum cover requirements, provided that the slope of dispersal area is not more than twenty percent (20%).
4. The area of the drip dispersal system shall be designed, located, and maintained to prevent vehicular traffic over it and shall be planted with appropriate vegetation upon installation to allow for uptake of nutrients from the wastewater.
5. Head loss calculations shall be provided to ensure proper hydraulic pressure at the emitter.
6. Emitter lines shall be designed as a continuous loop circuit with no dead-ends.
7. Vacuum release valves shall be installed at the highpoint of the emitter lines.
8. All drip dispersal systems shall incorporate an automatic mechanism for backwashing or flushing the drip lines and filters.
9. The maximum emitter longitudinal spacing on an emitter line shall be two feet (2'). The maximum spacing between adjacent emitter lines in an absorption bed configuration shall be two feet (2').
10. Drip dispersal systems shall be time dosed over a twenty four (24) hour period. Demand control dosing shall override timed dosing in periods of flow where timed dosing cannot accommodate the excessive flow.
11. Drip dispersal systems shall be designed, installed, operated, and maintained in accordance with the manufacturer's recommendations, in addition to the requirements specified above.

K. All wastewater discharged to a new, expansion, or replacement seepage pit system shall receive supplemental treatment. Seepage pits shall not be utilized on existing lots of record, unless the following criteria are met:

1. The qualified professional has demonstrated to the satisfaction of the EHB that there is no other area on the lot that will accommodate a conventional leach field or drip dispersal with supplemental treatment; and
2. The qualified professional incorporates supplemental treatment, including reduction of total nitrogen, into the OWTS design that meets or exceeds the effluent standards specified in Table 11 of this Chapter, including total nitrogen reduction. When the

separation to groundwater is less than ten feet (10'), bacterial disinfection shall also be required. The distance between a seepage pit and groundwater shall not be less than five feet (5'), even when the alternative OWTS utilizes supplemental treatment and disinfection.

3. The qualified professional shall submit a report to the EHB demonstrating that the installation and ongoing use of a seepage pits system(s) will be adequate to accommodate wastewater dispersal from the existing or proposed development. Soil evaluation requirements are different for vacant lots and lots that have not previously utilized seepage pits compared to lots that have successfully utilized seepage pits for onsite wastewater dispersal; however, the design specifications are the same for all proposed seepage pits.
  - a. When a seepage pit(s) has not previously been utilized on the site or when a seepage pit(s) has been used on the site but there is evidence that deep soil conditions preclude the continued use of seepage pits (e.g. premature failure), an exploratory boring that extends at least ten feet (10') past the proposed total depth of the seepage pit shall be required prior to EHB approval of the OWTS installation permit.
    - i. The boring shall be conducted and logged by a certified geologist or other qualified professional as approved by the EHB.
    - ii. The qualified professional shall determine the appropriate soil application rate in accordance with Table 5 of this Chapter.
  - b. When a seepage pit(s) has been previously utilized on the site and there is no evidence that deep soil conditions preclude the continued use of seepage pits, an exploratory boring shall not be required prior to EHB approval of the OWTS installation permit. However, the permit shall be conditioned to require at least one of the seepage pit excavations be over-drilled by ten feet (10') at the time of installation.
  - c. In the event groundwater is encountered during the installation of the seepage pits, the boring or excavation shall remain open for as long as necessary to allow the groundwater level to stabilize. The property owner maintains full responsibility for protecting the public from any hazards related to the test borings or excavations.
    - i. Once the qualified professional has determined the stabilized groundwater level, the boring or excavation shall be backfilled and compacted to the extent feasible to at least ten feet (10') above stabilized groundwater, or five feet (5') when an approved disinfection unit is incorporated into the alternative OWTS with supplemental treatment. A six inch (6") layer of bentonite pellets, cement slurry, or other impermeable material as approved by the EHB shall be deposited into the boring to reestablish an

impervious layer. The perforated pipe shall be placed in the center of the boring on top of the layer of impermeable material and backfilled with drain rock or other approved material to the depth of the distribution pipe.

4. Seepage pit design specifications.

- a. The minimum diameter of the pit shall be three feet (3’).
- b. The infiltrative capacity of a seepage pit shall be calculated based on the sidewall area below the inlet of the distribution pipe, exclusive of any hardpan, rock or clay formation, or fill material, i.e. the effective depth.

Infiltrative Capacity = Diameter of Pit (feet) x 3.14 x Effective Depth of Pit (feet)

- c. The distance between adjacent pits shall be at least twenty feet (20’), measured between side walls of the pits.
- d. The pit shall be filled with clean rock of a diameter not less than one and one-half inches (1 ½”) and not more than two and one-half inches (2 ½”) to a depth of two inches (2”) above the drain line, and covered with untreated building paper, or other material and earth backfill as approved by the EHB.
- e. The drain line in the pit shall be perforated pipe three inches (3”) or more in diameter that extends to the bottom of the pit, positioned in the center of the pit.
- f. Seepage pits shall have the wastewater distributed evenly between the pits by means of a distribution box or equalization device.

L. Alternative OWTS dosing methods. Pressurized dispersal systems shall be controlled by means of a programmable timer (time dosing) when the OWTS is designed to receive one thousand (1,000) gallons per day or more.

1. Demand control dosing shall override timed dosing in periods of flow where timed dosing cannot accommodate the excessive flow.
2. Time dosing is strongly encouraged for pressurized dispersal systems designed to receive less than one thousand (1,000) gallons per day; however, demand dosing may be utilized when the qualified professional deems it to be the most appropriate method of dosing in consideration of the wastewater generating use.

**15.20.110 - Standards for OWTS installation permits.**

A. All new, replacement or expansion OWTS, or any part thereof, and all replacement of existing OWTS, or any part thereof, shall comply with the standards, specifications, and regulations set forth in this Chapter. This section applies to the installation of both conventional and alternative OWTS.

B. If the proposed OWTS is associated with construction of a proposed structure that will generate domestic wastewater, no OWTS installation permit shall be approved until the construction permit for the proposed structure has been approved by all appropriate governmental agencies. In the case of existing development, the structure being served by the proposed OWTS shall have been permitted for the existing and/or proposed use by the appropriate governmental agencies before EHB will issue an OWTS installation permit. The EHB may request evidence of such permits and approvals from other governmental agencies as part of the application for the new, replacement, or expansion OWTS.

C. No OWTS permit shall be approved in any area where continued onsite domestic wastewater discharge would constitute a public health hazard, or where an existing or threatened condition of water pollution, contamination, or nuisance exists.

D. No OWTS permit shall be approved when any part of the system is proposed to be located on or within any lot other than the lot where the plumbed building or structure exists, unless an easement or other legally binding written recorded document provides permanent rights to the specific area of land for OWTS related use. Right of access for the landowner with the building or structure served by the proposed OWTS shall be demonstrated to the satisfaction of the EHB.

E. Domestic wastewater discharge from an OWTS shall be limited to the equivalent of forty (40) grams per gross acre per day of total Nitrogen.

1. 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 as prescribed by Table 2 of this Chapter, and which verifies that the proposed OWTS, alternative OWTS with supplemental treatment, or alternative dispersal system will sufficiently treat the wastewater so that it does not exceed that determined value.

- a. Domestic wastewater from commercial or industrial operations shall be evaluated as high strength wastewater. The qualified professional may utilize empirical data from existing, similar uses to estimate wastewater characteristics. The qualified professional shall specify the maximum volume of daily onsite wastewater dispersal allowed that will conform with nitrogen loading limits for the site in consideration of lot size.
- b. When the use of conventional OWTS to serve new or expanded development would exceed the nitrogen loading limit for the property, a supplemental treatment system, including nitrogen reduction, shall be incorporated into the OWTS design to conform with the forty (40) grams per gross acre per day limit.

F. A cumulative impact analysis shall be completed by a qualified professional in accordance with the method approved by the Director, prior to approval of any OWTS installation permit for systems proposed to accept wastewater from non-domestic sources, such as restaurants or commercial/industrial operations, or that are designed to receive more than two

thousand five hundred (2,500) gallons of wastewater per day. The OWTS shall be subject to additional restrictions on permissible groundwater separation distances as determined appropriate by the qualified professional in the cumulative impact analysis and as approved by EHB.

G. All new OWTS shall include two dispersal systems that meet the minimum specifications of this Chapter. The systems shall be separated by a diversion valve. Area for a future (third) dispersal system on the property that is equal to or greater than the land area necessary to accommodate the larger of the first or second dispersal systems shall be required for all new OWTS, unless the qualified professional recommends reduced land area based on site-specific soil evaluation. Suitable area for a future (third) dispersal system shall be set aside and protected through a written instrument recorded on the property that limits the area from all uses except future dispersal system replacement.

1. When proposed construction on the property will make the future (third) dispersal area inaccessible to installation equipment, the dispersal system shall be specified as part of the design to be installed at initial installation of the OWTS.
2. When a qualified professional determines that sufficient land area for a future (third) dispersal system is unavailable, a deed restriction shall be recorded at the owner's expense to notify the current and future property owners that an alternative OWTS with supplemental treatment may be required to accommodate any future replacement of OWTS or expansion of OWTS.

H. No OWTS permit shall be approved when subsurface conditions are comprised of permeable rock, as defined by this Chapter, unless the dispersal system area is shown by a qualified professional to yield percolation test results within the acceptable range specified in Table 4 of this Chapter and unless vertical separation requirements to groundwater, consolidated bedrock or another impervious layer are met in accordance with Table 13 of this Chapter.

I. No OWTS permit shall be issued unless the system conforms with the minimum horizontal setback distances specified by Table 3 of this Chapter.

1. When the minimum horizontal setback to a water source, watercourse, or body of water specified by this Chapter cannot be met, an alternative OWTS, which may include a supplemental treatment unit and/or an alternative dispersal system, shall be required. The qualified professional shall demonstrate that the proposed alternative OWTS is adequate to protect the water source, watercourse, or body of water from the OWTS discharge. For water sources that serve public water systems, the alternative OWTS shall also include a supplemental treatment unit with disinfection.
2. When the minimum horizontal setback distance to a structure cannot be met, a professional engineer shall verify that the proposed distance will not jeopardize the structural integrity of the OWTS or the structure itself.

3. When a qualified professional proposes to install an OWTS component within the minimum horizontal setback to a tree protected by Title 20 or 21 of this Code, an arborist report shall be required to confirm that the installation and ongoing use of the OWTS will not detrimentally impact the tree(s).
4. The minimum horizontal setback distance to a property line may be reduced for replacement OWTS only when the adjacent property is determined to be at the same or similar elevation or higher elevation than the invert of the OWTS dispersal system. The qualified professional shall demonstrate, to the satisfaction of the EHB, that no other suitable area is available for the OWTS and that the maximum practicable setback is maintained. In no case shall the minimum horizontal setback to a structure on an adjacent property be reduced.

J. No OWTS permit for new or expansion OWTS permit shall be approved for a conventional OWTS in an area subject to ten (10) year flood events, as determined or estimated from published floodplain maps, or based on historical evidence acceptable to the Director.

K. No OWTS permit shall be approved when the system will accept high strength wastewater from commercial food service buildings unless the wastewater does not exceed nine hundred milligrams per liter (900 mg/L) BOD and there is a properly sized and functioning oil/grease interceptor.

L. Grease interceptors or other devices, approved as part of a construction permit from the County, which remove grease from the waste stream, must be installed in food facilities with food preparation. Grease traps under pot sinks are generally not acceptable but may be approved when the proposed operation is not anticipated to generate significant volumes of grease, such as yogurt or smoothie shops.

M. Where a line carrying potable water must cross a dispersal field, the line shall be at least one foot (1') above the top of the dispersal field, and no joint in the pipeline shall be closer than eight feet (8') to the field dispersal line.

N. Any OWTS proposed within four hundred feet (400') of a watercourse with year-round flow or that has been designated as a beneficial use for domestic water supply shall comply with the following requirements:

1. No OWTS permit shall be issued when a conventional dispersal system is proposed to be located at any point having less than a minimum distance of one hundred feet (100') from the watercourse.
2. The piping of any part of the OWTS, including the pipe from the house to the septic tank, is prohibited if the pipe runs across or under any watercourse designated as a beneficial use for domestic water supply. Site specific engineering may be approved at the discretion of the EHB to overcome the obstacle if no other suitable area is available on the property.
3. Prior to approval of a permit that includes an OWTS dispersal system proposed to be located between one hundred feet (100') to one-hundred and forty-nine feet



(149') away from the watercourse, percolation testing shall be required, and the qualified professional shall make a determination, subject to EHB review and acceptance, as to whether a nitrate-contaminant study is required. A supplemental treatment system, including nitrogen reduction and disinfection, shall be incorporated into the OWTS if the percolation rate is found to be less than or equal to five minutes per inch.

- a. If a nitrate-contaminant study is required, the location and number of samples shall be specified in a workplan, submitted to the EHB for review and acceptance prior to initiating work. The analysis must meet the minimum standards specified for a nitrate contaminant study, in accordance with the methods approved by the Director.

O. Wastewater effluent shall not be piped across a drainageway or watercourse that does not have year-round flow unless the effluent has first passed through a septic tank or supplemental treatment unit. The wastewater piping shall be sleeved for at least eight feet (8') beyond the high-water mark on each side of the watercourse with as few joints in the sleeve as practical, preferably none.

P. The distance between the bottom of a dispersal system and bedrock or an impervious layer shall conform with the minimum vertical separation specified by Table 13 of this Chapter.

Q. When a dispersal system is proposed to be situated fifty feet (50') or closer to or within a cut bank or downhill slopes that exceed thirty percent (30%), a minimum vertical distance of five feet (5') between the bottom of the dispersal system and bedrock or other impervious layer shall be required. This vertical separation may be reduced at the discretion of a qualified professional when a linear loading evaluation has been completed to demonstrate that sufficient soil is available below the dispersal system to ensure that wastewater effluent will not surface or mound below ground.

R. The minimum vertical separation between the bottom of a conventional OWTS dispersal field and seasonal high groundwater shall be determined by Table 4 or 5 of this Chapter as appropriate.

1. When groundwater is encountered, the qualified professional shall determine if the construction of subsurface drainage improvements would be sufficient to divert the water away from the dispersal system area and protect against comingling of the wastewater effluent and groundwater. The qualified professional's determination is subject to EHB's consideration and acceptance.
2. When the minimum vertical separation between the bottom of the dispersal field and groundwater cannot be met and construction of subsurface drainage improvements would not be sufficient to divert the water away from the dispersal area, an alternative OWTS with supplemental treatment, including nitrogen reduction, shall be required.
3. In all cases where the vertical groundwater setback for an OWTS specified by this Chapter cannot be met, a permanent monitoring well shall be required and will be

subject to all permit and construction requirements specified by Chapter 15.08 of this Code.

4. Community dispersal systems shall demonstrate that at least fifteen feet (15') of vertical separation will exist between the bottom of the proposed dispersal system and groundwater, including perched water, regardless of the minimum separation specified in this Chapter.

S. Stormwater and subsurface sheeting water shall be diverted away from the dispersal area. This may require site grading and installation of a diversion ditch or berm on the upslope side of the dispersal area. Subsurface sheeting water may be intercepted by a curtain drain and diverted around the dispersal system provided the following conditions exist:

1. Natural ground slope is greater than or equal to five percent (5%);
2. Site investigation by a qualified professional shows groundwater to be perched on a clearly definable layer of bedrock or impervious soil; and
3. The curtain drain(s) is designed by a qualified engineer or geologist.

T. The qualified professional shall determine the appropriate soil application rate for each dispersal system in consideration of the soil profile, percolation testing and/or direct inspection pursuant to Tables 4 or 5 of this Chapter, as applicable.

1. When percolation testing is utilized to assess the absorptive characteristics of the soil, the following criteria must be utilized:
  - a. The qualified designer shall use the final, stabilized percolation rate obtained for each boring to determine the soil application rate.
  - b. Percolation rates of more than one hundred and twenty (120) minutes per inch (less than one-half inch per hour) are unsuitable for any kind of sewage disposal field. Where there are areas of percolation rates that have conflicting results (e.g. some passing and some failing), there must be a statistical preponderance of passing percolation rates, as determined by the EHB, for that area to be considered suitable for subsurface disposal of septic tank effluent.
  - c. Percolation rates more than ninety (90) but less than one hundred and twenty (120) minutes per inch are considered marginal. The qualified professional shall consider other constraints on the property that may make the property unsuitable for OWTS, such as total lot size, depth to groundwater, topography, well site location, and streams. The EHB shall not approve an OWTS permit based on marginal percolation rates when a consideration of the above criteria indicates that ground water, surface water, or public health will be put at risk.

2. When both percolation testing and direct inspection are utilized to assess absorptive characteristics of the soil, the qualified professional shall make a recommendation of the appropriate soil application rate for review and approval by the EHB.

U. When a water treatment system will be installed to treat water from a domestic water source (including but not limited to a spring, private well, or a connection on a water system) to meet drinking water standards, the discharge of water treatment wastewater into the OWTS may be authorized by the EHB in the following situations:

1. A Point-of-Use (POU) water treatment device is installed within the structure just prior to the tap, so that only water from the affected tap is treated. The OWTS design volume does not need to be increased to accept POU wastewater unless multiple POU water treatment devices are approved for use by the EHB and installed throughout a structure.
2. A Point-of-Entry (POE) water treatment device treats all of the domestic water before it enters the structure. The qualified professional shall determine the wastewater generation rate of the approved water treatment system and revise the OWTS design to accommodate the additional wastewater .
3. If a water treatment system supplies water for human consumption to more than one service connection on the same property, then wastewater from that system may be discharged into an OWTS, provided the OWTS has sufficient capacity to accept the additional volume. When the service connections are located on more than one property, a separate disposal trench shall be installed pursuant to the specifications of the water system permit. For the purposes of this Chapter, if a separate disposal trench will be utilized for drinking water treatment waste, the trench shall meet the OTNWS design standards.
4. If a water treatment system relies on resin filter media, the resin filter backwash may be discharged to the OWTS. Portable exchange of resin filter media tanks is preferred, but if the backwash is intended to be discharged into the OWTS, the design volume shall be increased to include recurring filter backwash wastewater when the anticipated backwash volume is more than five percent (5%) of the estimated domestic wastewater volume over a given time period (e.g., one week).
5. Water treatment devices are prohibited if their use would result in the disposal of additional salts or binding agents into an OWTS. This prohibition does not include disinfection devices such as chlorinators.

#### **15.20.120 - Installation requirements for OWTS and OTNWS.**

A. The qualified installer shall notify the EHB in writing at least forty eight (48) hours before moving equipment on site to commence installation of an OWTS or OTNWS, Monday through Friday. The EHB will not accept notice on Saturdays, Sundays, or County holidays. The notice shall include the address of the subject property and installation permit number, in addition to the contact and license information of the installer.

B. A copy of the approved installation permit shall be on site throughout the duration of installation or replacement. For OWTS installations, the EHB shall be notified at least forty eight (48) hours prior to commencing installation if the applicant elects to change the designated qualified installer.

C. All connections from buildings with permitted plumbing to a tank, including the grade of the pipe from the building to the tank, shall be made in accordance with the most recent edition of the California Plumbing Code and Title 18 of this Code, as each may be amended from time to time.

D. Tanks shall be installed in accordance with the manufacturer's specifications. Unless otherwise specified by the manufacturer's recommendations, soil around tanks shall be hard-compacted. All new, replacement, and expansion tanks shall be certified to be watertight in accordance with one of the methods approved by the Director of EHB, prior to final approval of any OWTS permit.

E. All work for which a permit is required by this Chapter shall be subject to inspection by the EHB. A final inspection of a completed system must be obtained before any piping or component is covered with earth. EHB reserves the right to waive a final inspection, in which case the qualified installer shall provide written confirmation that the system has been installed in substantial conformance with the EHB-approved plan and reflects any changes approved by the EHB during the process of installation. No OWTS or OTNWS system shall be used until EHB has granted final approval of the installation.

F. Whenever an OWTS is designed or engineered to overcome site-specific constraints or includes a supplemental treatment system or alternative dispersal system, the qualified professional that designed or engineered the system shall conduct inspections throughout the installation in order to certify that it has been installed in substantial conformance with the EHB-approved plan and any changes approved by the EHB during the process of installation. Documentation of these inspections shall be provided to the EHB upon request. In the event that the qualified professional who designed the system is no longer available, the owner shall obtain approval from the EHB to substitute a different qualified professional to perform inspections during the installation process.

G. Prior to EHB's final approval of OWTS installation, the qualified professional shall submit an as-built diagram, including but not limited to any changes approved by the EHB during the process of installation, and show the exact dimensions, geometry, and location of all elements of the OWTS.

H. It is the responsibility of the qualified installer or property owner to request such final inspection, and any other inspections which the EHB may have required in the permit, and to ensure that the work is ready for such inspection. Request for inspection shall be made not less than forty eight (48) hours in advance of any required inspection. The EHB will not conduct

inspections on Saturdays, Sundays and County holidays, unless determined necessary at the discretion of the EHB.

I. EHB shall provide final approval of the installation in writing. EHB approval shall be withheld until the owner or his or her authorized agent has paid all associated fees and completed and submitted documentation to the EHB which demonstrates, to the satisfaction of EHB, that all special conditions identified on the permit have been addressed and that the installation conforms to the approved plans or any subsequent approved revisions to the plans.

J. Failure to provide notice to EHB of any required inspections is a violation of this Chapter. If additional inspections are necessary because the OWTS was not ready during a requested inspection, EHB may charge the owner for the additional staff time required to complete inspection(s) at the current hourly rate as adopted by the Board of Supervisors, in addition to any OWTS application fee.

**15.20.130 - Additional installation requirements for alternative OWTS.**

A. All alternative OWTS shall be installed by a qualified professional in accordance with the specifications for location, components, size, and depth as designed by the qualified professional and approved by the EHB. When the installation includes a supplemental treatment unit, the installer shall also provide to the EHB any required manufacturer certification, if applicable.

B. The qualified professional shall also be responsible for inspection of system installation to assure conformance with approved plans and shall provide an as-built drawing of the installation to the Director and property owner. The installation inspection by the qualified professional designer shall be in addition to standard County inspection work carried out in accordance with this Chapter.

C. The qualified professional shall prepare an Owner's Manual for the alternative OWTS and provide a copy to the EHB and to the property owner, which includes the following:

1. License and contact information for the certified designer, installer, and service provider;
2. As-built drawing with installation and system start-up dates;
3. Treatment process and performance expectations;
4. Lists of typical materials, tools, equipment, and spare parts;
5. Routine cleaning and maintenance procedures;
6. Effluent testing procedures; and
7. Troubleshooting tips.

**15.20.140 - Application requirements for OWTS operating permit.**

A. An application for an OWTS operating permit shall be in writing, on an EHB-approved form. The application shall be signed by the owner of the property, or his or her authorized agent, and accompanied by payment of applicable fees as adopted by the Board of Supervisors. The application submittal shall include the following:

1. Property information, to include Assessor's Parcel Number and, if available, the subject property's street address;
2. Copy of most recent grant deed with the property's legal description;
3. Physical and mailing address and email of property owner and, if owner has authorized an agent, the mailing address and email of the agent;
4. If the application is signed by an agent, written agent authorization signed by the property owner;
5. Copy of current, executed O&M Service Agreement; and
6. Such other information as the Director determines is necessary to process the application.

B. Renewal of the operating permit shall be required annually, unless otherwise specified in the permit by EHB.

C. An application for renewal of a previously issued operating permit shall be in writing on an EHB-approved form. The application shall be signed by the owner of the property, or his or her authorized agent, and accompanied by payment of applicable fees as adopted by the Board of Supervisors. In addition to the requirements of this Section, the submittal shall also include the following:

1. An operating permit report summarizing all monitoring, inspection and service activities during the interval specified in the operating permit (e.g. one year);
2. If the application is signed by an agent, written agent authorization signed by the property owner; and
3. Such other information as the Director determines is necessary to process the application.

**15.20.150 - Operating permit requirements for OWTS and OTNWS.**

A. Operating permits are intended to serve as the basis for verifying the adequacy of OWTS and OTNWS performance and to ensure on-going activities are completed, such as maintenance and/or water quality monitoring. The owner of real property served by a new or existing OWTS or OTNWS shall be required to apply for an operating permit in each of the following circumstances:

1. At the time of application for an alternative OWTS or OTNWS;

2. Within thirty (30) days of transfer of title of property on which an OWTS or OTNWS subject to an existing operating permit exists;
3. Within thirty (30) days of receiving written notification from the EHB that an alternative OWTS or OTNWS exists on the property;
4. Prior to issuance of permit to install a haul away system; and
5. At the time of application for conventional OWTS or OTNWS that will necessitate water quality analysis pursuant this Chapter.

B. An operating permit may also be required for circumstances other than alternative OWTS, such as for larger flow OWTS (e.g. >2,500 gpd), or where the Director determines that the type, size, location or other aspects of a particular OWTS installation warrant the additional level of oversight provided by an operating permit. In such cases, the issuance and scope of operating permits will be governed by the general requirements of this Chapter and subject to the monitoring and inspection requirements specified by the Director and in consideration of recommendations by the qualified professional.

C. Performance monitoring and reporting. EHB will establish a monitoring and reporting schedule for each operating permit at the time of permit issuance and may amend the schedule at the time of permit renewal. Said monitoring shall be performed to ensure that the system is functioning satisfactorily to protect water quality and public health and safety.

1. Monitoring requirements, including frequency of monitoring, will vary depending upon the specific type of system and will be based on upon the manufacturer's specifications and methods approved by the Director. Permanent groundwater monitoring wells installed as a condition of an alternative OWTS permit shall be measured annually in accordance with methods approved by the Director.
2. Monitoring of OWTS shall be conducted by or under the supervision of a registered qualified service provider in accordance with methods approved by the Director.
3. The performance objectives for an OWTS may be amended from time to time by EHB when water quality monitoring indicates that the ongoing use of the OWTS is contributing to a decline in groundwater quality.
4. Monitoring reports shall be prepared and signed by the registered qualified professional who completed the service and shall also be signed by the property owner or authorized agent.
5. The property owner or authorized agent shall submit an operating permit report to the EHB on an EHB-approved form. Notwithstanding septic tank pumper

reports or operating permit reports, the owner or owner's authorized agent shall notify EHB immediately of any system problems observed during inspection and/or monitoring of the wastewater system that threaten public health or water quality.

6. The EHB will review the operating permit report for conformance with requirements of the operating permit and may require corrective action or general changes in monitoring and inspection requirements in order to protect public health and safety.
7. In addition to regular inspection and monitoring activities, inspection and evaluation of OWTS or OTNWS will be required at the discretion of the EHB in the event of significant flooding or an earthquake causing significant ground shaking in the region. The EHB will issue appropriate notices when such inspections are required and will specify how the registered qualified service provider conducting the inspection and evaluation will be required to report their findings to the EHB. The purpose of such inspections will be to assess and document any damage to the OWTS or OTNWS and to require the property owner to implement corrective measures, as needed, in a timely manner.
8. Any component, control system, or monitoring device subject to an operating permit from the EHB shall be maintained in good working order, and operated as efficiently as possible, to meet requirements specified by the operating permit. The property owner shall be responsible to arrange for corrective actions to be completed when monitoring or inspection activities indicate that the system is not operating in accordance with the standards of this Chapter, the conditions of the permit, or policies approved by the Director, or is not meeting performance objectives.
9. A deed restriction recorded on title shall be required to notify current and future owners that an OWTS or OTNWS is installed and requires on-going operation and maintenance to be completed by a qualified professional and that an operating permit shall be maintained in perpetuity or so long as the OWTS and/or OTNWS is to be utilized.

**15.20.160 - Water quality monitoring required.**

A. As part of an operating permit, EHB may require the owner to conduct on-going water quality monitoring. The EHB will analyze routine water quality monitoring of onsite water wells or surface water to identify problem areas throughout Monterey County that are served by OWTS to determine if an area-specific groundwater or surface water quality monitoring program is warranted. Monitoring of an onsite well, surface water, or other source shall be required in any of the following circumstances:

1. When a conventional OWTS dispersal system will be located one hundred feet (100') or more, but less than one hundred fifty feet (150') away, from a



watercourse with year round flow or that has been designated as a beneficial use for domestic water supply, the watercourse shall be sampled in accordance with the methods approved by the Director.

2. When an insufficient horizontal setback to an onsite water well or surface water, as described in this Chapter, prompts the requirement for an alternative OWTS with supplemental treatment, the onsite water well or surface water shall be sampled in accordance with the methods approved by the Director.
3. When an OWTS dispersal system will be installed within two hundred fifty feet (250') of an onsite water well or surface water supply, the onsite water well or surface water supply shall be sampled in accordance with the methods approved by the Director.

B. Baseline sampling shall be completed prior to issuance of an OWTS installation permit when water quality monitoring is required by this Section. Ongoing, routine monitoring shall be completed in accordance with the frequency prescribed by the operating permit.

C. Water quality analysis shall be completed by a California Environmental Laboratory Accreditation Program (ELAP) certified laboratory and shall include all of the following constituents:

1. total nitrogen;
2. chloride;
3. sodium;
4. total dissolved solids;
5. bacteria by enumeration (total coliform, *E. coli* and enterococcus); and
6. other pollutants of concern as determined by the Director.

D. When water quality analysis results of two consecutive sampling events indicate that the level of a monitored constituent has increased by more than ten percent (10%) compared to the previous sample, a qualified professional shall determine if the ongoing use of the OWTS is contributing to the decline in water quality by conducting a site-specific water quality monitoring program that meets the standards approved by the Director or the qualified professional may propose improvements to the OWTS to mitigate the impact to water quality.

1. The proposed water quality monitoring program or improvements shall be submitted to the EHB for review and approval. As required by this Code, a permit shall be obtained prior to modification of the OWTS or installation of a monitoring well(s).

**15.20.170 - Standards and specifications for existing OWTS.**

A. When an existing OWTS installed under permit from the EHB does not comply with the nitrogen loading standards specified by Table 2 of this Chapter or is discovered to encroach upon the horizontal setback requirements specified by Table 3 of this Chapter, the OWTS shall be allowed to remain in place until such time that it is proposed to be replaced or expanded unless continued use of the OWTS is likely to cause negative impacts to groundwater, surface water, or public health.

B. To protect an existing OWTS from new or expanded development on a parcel, such new or expanded development must be sited in a manner that ensures that the minimum horizontal setback requirements specified by Table 3 of this Chapter can be met.

C. Prior to approval of a discretionary land use permit or, if no discretionary permit required, a construction permit, for an addition, remodel, tenant improvement, or change of use on a property that is served by OWTS:

1. The applicant shall demonstrate that adequate land area is available on the property to accommodate a future dispersal system replacement when the proposed development will increase the structural footprint (i.e. lot coverage) or will increase the estimated daily volume of wastewater generation. The approximate size for a future dispersal system area shall be based on the estimated daily volume of wastewater generation and soil application rate specified by Table 4 or 5 of this Chapter, as applicable. When site specific soil information is unavailable to identify the soil application rate, a soil application rate of two-tenths (0.2) gallons per square foot per day shall be utilized.
  - a. If it is determined that sufficient land area for a future (third) dispersal system is unavailable, a deed restriction shall be recorded at the owner's expense to notify the current and future property owners that an alternative OWTS with supplemental treatment may be required to accommodate any future replacement or expansion of the OWTS.
2. The applicant shall provide documentation to the satisfaction of the EHB that the existing OWTS will conform to the OWTS design volumes as specified by this Chapter when the proposed addition, remodel, tenant improvement or change of use will increase wastewater generation on the property.
  - a. When the design volume of existing OWTS is inadequate, the OWTS shall be expanded under permit from EHB to meet the standards set forth in this Chapter. All necessary improvements to the OWTS shall be completed prior to final inspection conducted for the construction permit. 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.

- b. Expansion of an existing OWTS shall be required to meet the same standards set forth by this Chapter for new OWTS and must be protective of human health and the environment, including but not limited to nitrogen loading limitations prescribed by Table 2 of this Chapter.
- c. The structural and operational condition of an existing OWTS shall be determined by a qualified professional and confirmed by EHB prior to EHB approval of a construction permit, when required by Table 9 of this Chapter, by way of an OWTS Performance Evaluation completed in accordance with the methods approved by the Director.
- d. Any OWTS component that is deemed to be in unacceptable condition (failed) shall be repaired or replaced in accordance with the minimum standards of this Chapter prior to the final inspection for the construction permit that prompted the requirement for a performance evaluation.
- e. A redwood or a poured-in-place concrete tank that maintains acceptable structural integrity and is operating as designed shall not be construed to be in unacceptable condition.

D. For the purposes of this Section and Table 10 of this Chapter, a conforming dispersal system is one that meets all water-related horizontal or vertical setback requirements, is not covered by an impermeable surface, and is less than ten feet (10') total depth. A non-conforming dispersal system is one that does not meet all minimum water-related horizontal or vertical setback requirements, is covered by an impermeable surface, or is greater than ten feet (10') total depth, including but not limited to seepage pits.

1. When a construction permit for an addition, remodel, tenant improvement or change of use will result in increased volume, a conforming dispersal system is eligible to remain in use and expanded as necessary. Installation of a supplemental treatment unit shall be required when a change in wastewater strength will exceed the nitrogen loading limit for the property.
2. When a construction permit for an addition, remodel, tenant improvement or change of use will result in increased wastewater strength or volume, a non-conforming dispersal system shall be allowed to remain in use only when a supplemental treatment system that meets the effluent constituent limitations specified by Table 11 of this Chapter is incorporated into the OWTS prior to final inspection of the construction permit or commencement of this use.
3. EHB may, in its discretion, determine that installation of supplemental treatment is not required in the following circumstances:

- a. When a construction permit for an addition, remodel, tenant improvement or change of use will not result in increased wastewater strength or volume;
- b. When an allowed conversion of an existing bedroom or habitable structure into a Junior Accessory Dwelling Unit (JADU) on a property meets all additional requirements identified in this Chapter;
- c. When one bedroom is added to an existing two bedroom dwelling on a minimum lot size greater than three-quarters (0.75) of an acre.

E. Existing, conforming dispersal systems and certain non-conforming dispersal systems as specified by Table 10 of this Chapter are eligible to have their dispersal capacity reassessed to determine if the system can increase its daily design flow in consideration of site-specific soil characteristics or percolation rates in accordance with Table 4 or 5 of this Chapter, as applicable. A qualified professional may assess the absorptive characteristics of the soil using either direct inspection or percolation testing in the vicinity of the existing dispersal system or consider information in an existing soil or percolation testing report, to determine if it is appropriate to utilize an alternate soil application rate from that which was used in the original OWTS design. Any such reassessment is subject to EHB review and approval.

F. When the information necessary to reassess the capacity of the existing dispersal system is unavailable, the soil application rate shall be evaluated using a soil application rate of three-tenths (0.3) gallons of wastewater per square foot of dispersal system per day unless the original soil application rate is known and was based on site-specific information.

G. When supplemental treatment, including nitrogen reduction, is incorporated into an existing OWTS, the estimated daily volume of wastewater generation may increase by up to one-hundred and fifty (150) gallons without the requirement to expand the dispersal system capacity.

**15.20.180 - New subdivisions of land that propose OWTS for sewage disposal.**

A. For proposed subdivisions of land that will use OWTS for sewage disposal, the minimum lot size shall not be less than one (1) gross acre; however, a minimum lot size of two and one-half (2.5) acres shall be required when the source of water for the subdivision's domestic water supply, such as a water well, spring or other source of domestic water, exists or is proposed on the proposed lot.

B. For proposed subdivisions creating five or more parcels, the lot size criteria in Table 1 of this Chapter shall also be met. The applicant shall consider annual rainfall data from an observation station(s) in the Global Historical Climatology Network-Daily database to establish the average annual rainfall for the property, subject to review and acceptance by the EHB. For the purposes of this Chapter, average annual rainfall shall mean the average amount of precipitation for a location over a year for the preceding three decades.

C. Development shall be limited to onsite wastewater discharge of forty (40) grams per acre per day of total Nitrogen. Subdivisions of land creating two parcels with existing residential development may utilize supplemental treatment technology to meet the nitrogen standard of this Section.

D. The applicant shall clearly demonstrate that the proposed use of OWTS will not adversely affect groundwater or other beneficial water uses in the future and that the anticipated use(s) of the OWTS will comply with all the requirements of this Chapter.

E. Proposed subdivisions shall be required to complete a comprehensive site evaluation, as prescribed by this Chapter, for each proposed lot. The site evaluations shall be completed by a qualified professional and provide sufficient information to identify suitable locations to accommodate the primary, secondary, and future (third) dispersal systems and shall be based on a daily design volume of four hundred fifty (450) gallons per day.

F. Soil profile analysis and percolation testing for proposed subdivisions 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. In all cases, at least one soil profile excavation or boring and one percolation test shall be completed for each proposed lot. Alternative OWTS or gravel-filled seepage pits shall not be used to demonstrate OWTS feasibility for new subdivisions.

G. Any pending subdivision application that was not deemed complete prior to May 10, 2018, and that proposes to rely on OWTS for sewage disposal must conform to the comprehensive site evaluation and soil testing criteria and the minimum lot size criteria specified by Table 1 of this Chapter prior to approval of the tentative map, tentative parcel map, or vesting tentative map. Any pending subdivision application that was deemed complete but not approved as of May 10, 2018 and that proposes to rely on OWTS for sewage disposal must conform to the comprehensive site evaluation and soil testing criteria specified by this Chapter prior to approval of the tentative map, tentative parcel map, or vesting tentative map. These requirements are necessary to protect the public health and safety and to comply with state OWTS Policy as implemented through the LAMP.

H. In accordance with Section 66498.1 of the Subdivision Map Act (California Government Code Sections 66410 to 66499.58), to protect the public health and safety, and to comply with state OWTS Policy as implemented through the LAMP, for vesting tentative maps and tentative maps approved by the County prior to adoption of the LAMP on May 10, 2018, the EHB may require, prior to OWTS permit issuance, that the owner conduct additional site evaluation and soil testing to demonstrate conformance with the OWTS standards in place at the time of OWTS permit issuance. Additionally, the EHB may require the installation and ongoing use of an alternative onsite wastewater treatment system with supplemental treatment to meet minimum standards.

**15.20.190 - Nitrogen Management Area, supplemental treatment required.**

All new and replacement OWTS dispersal systems proposed within the Carmel Highlands Special Area of Concern Boundary, as shown by Figure 6-1 of the LAMP, shall

incorporate supplemental treatment measures, including nitrogen reduction, designed to meet the standards specified by Table 11 of this Chapter.

**15.20.200 - Abandoned sewage disposal facilities.**

A. Every septic tank and pump chamber which has been abandoned, or has been otherwise discontinued from further use, or to which no waste or soil pipe from a plumbing fixture is connected, shall be properly abandoned in place or demolished, under permit from the EHB in accordance with the standards specified by this Section. A permit to abandon or demolish shall be obtained from the EHB prior to any work being performed.

B. Hollow seepage pits and cesspools are a significant threat to groundwater and a physical safety threat due to the tendency to collapse. Upon discovery, cesspools shall be properly abandoned following the septic tank demolition standards of this Section. Hollow seepage pits may be retroactively brought into compliance by filling in the void space with EHB-approved rock when vertical and horizontal setbacks can be met. When the setbacks cannot be met, hollow seepage pits shall be properly abandoned. A permit shall be obtained from EHB for the abandonment of cesspools and hollow seepage pits.

C. Proper abandonment of cesspools, septic tanks, pump chambers, or hollow seepage pits shall mean the following for the purposes of this Chapter:

1. The tank, pit or pump chamber shall be pumped completely by a registered liquid waste hauler. The bottom of a septic tank or pump chamber shall be broken out to prevent the ponding of water, or be removed from the ground completely and disposed of at an approved solid waste disposal site. The void space or excavation shall be backfilled with sand, gravel, cement or compacted earth and made to be level with the natural ground slope.

D. Any requirement to maintain an ongoing operating permit for a wastewater system shall become null and void upon demolition of said system conducted pursuant to the demolition permit from the EHB.

**15.20.210 - Annual registration requirements for qualified professionals.**

A. The qualified professionals that design, install, inspect, maintain, repair and/or replace OWTS and OTNWS in Monterey County are required to register with EHB to do work under this Chapter and are required to renew their registration annually to remain qualified to do work under this Chapter. The registered qualified professional is responsible for being knowledgeable and compliant with all requirements of this Chapter and the LAMP. They are also responsible for ensuring that their employees and agents are knowledgeable and compliant with the requirements of this Chapter and the LAMP.

B. All qualified professionals shall register with the EHB prior to conducting activities related to OWTS and OTNWS design, installation, maintenance, and repair of an OWTS or OTNWS in the unincorporated areas of Monterey County and in any other jurisdiction which has elected to apply the requirements of this Chapter.

1. An owner-builder that does not possess any of the specified contractor's licenses is limited to performing septic tank abandonment or demolition under permit from the EHB and is not required to register as a qualified professional.
2. Individuals performing design, installation, maintenance, and repair of OTNWS are not required to register as a qualified professional.

C. All applications for registration as a qualified professional shall be made in writing on a form prescribed by the EHB and shall include such information as the EHB determines is necessary in order to verify the applicant's qualifications as a qualified professional pursuant to this Chapter.

1. Any person applying for registration as a qualified professional shall submit the following information to the EHB as part of the registration application:
  - a. Completed qualified professional registration application form, personally signed by the professional license or certificate holder.
  - b. Proof of a valid professional license or certificate.
  - c. The name and contact information of a person or persons who shall act as the principal contact or intermediary with the EHB.
  - d. Applicable fee as adopted by the Board of Supervisors, no part of which shall be refundable.
2. Qualified professionals are required to register with EHB on an annual basis to do work under this Chapter. All registration certificates issued by EHB expire on the 30th of June, regardless of the date of issuance. Renewal of registration is required for a qualified professional to do work under this Chapter.
3. A registered qualified professional may renew their qualified professional registration by submitting the following to the EHB:
  - a. Proof of a valid, unexpired professional license or certification; and
  - b. Payment of annual registration fee in the amount set by the Board of Supervisors.
4. An individual or business is not eligible to renew their qualified professional registration for one year after revocation of a qualified professional registration or for such length of time as specified if the County revokes or suspends the registration.
5. A registered qualified professional must give the EHB immediate written notice of any suspension or revocation of their professional license or certification. The EHB may suspend or revoke the qualified professional registration at any time if the registered qualified professional ceases to have a valid professional license or certification, or if it has expired.

6. A registered qualified professional must give the EHB written notice within fifteen calendar days of any changes in contact information.
7. The EHB shall maintain a current list of names and business addresses of all registered qualified professionals and of all registered qualified professionals who are currently disqualified due to suspension or revocation of registration.

**15.20.220 - Application for approval of tanks, proprietary non-rock dispersal media, and supplemental treatment devices or systems.**

A. The EHB shall maintain a list of septic tank models, proprietary non-rock dispersal media, and supplemental treatment devices or systems that are approved for use.

1. All tanks shall be constructed of materials approved by the EHB and meet all of the following standards:
  - a. Tanks shall be watertight and constructed of durable, corrosion resistant material, such as reinforced concrete, fiberglass or polyethylene plastic;
  - b. Tanks must conform to the structural standards set forth by the IAPMO or American Society for Testing and Materials (ASTM);
  - c. Tanks shall be structurally designed to withstand all anticipated earth or other loads, and shall be installed level;
  - d. Tank design must allow access for inspection and cleaning;
  - e. Tanks shall be capable of being pumped out completely without the need to backfill with water to maintain structural integrity; and
  - f. Septic tanks shall have two compartments, separated by a baffle and include an air vent between the tank compartments.

B. Prior to installation, any septic tank model that is proposed to be used, and not already on the EHB approved materials list, is required to receive approval from EHB. Once approved, the use of the tank model shall be acceptable for use in subsequent OWTS installation permits, at the discretion of EHB. To apply for approval, the manufacturer, distributor, or other applicant must submit all of the following information to the EHB:

1. Letter requesting approval for the size of septic tanks or other materials;
2. Certificate of approval from the IAPMO;
3. Statement that the septic tank conforms with minimum design and installation standards specified by this Section, including but not limited water tightness;
4. Plans of the septic tank(s) for which approvals are being requested;



5. Installation instructions; and
6. A review fee as adopted by the Board of Supervisors.

C. Proprietary non-rock dispersal media products shall be constructed of materials approved by the EHB and must conform to the structural standards set forth by IAPMO or ASTM, and shall be designed to withstand all anticipated earth or other loads.

D. Prior to installation, any dispersal media alternative to traditional pipe and gravel leachfield system that is proposed to be used, and not already on the EHB approved materials list, is required to receive approval from EHB. To apply for approval, the manufacturer, distributor, or other applicant shall submit all of the following information to the EHB:

1. A letter requesting approval for the specific product or other material;
2. A product listing certificate from IAPMO;
3. Plans and specification sheets for the product or material for which approval is being requested;
4. Installation instructions;
5. When the applicant contends that use of the product or material would decrease the minimum amount of infiltrative area required (using a multiplier no less than 0.70), a statement of the proposed infiltrative capacity reduction with supporting documentation (e.g. third party testing) to support the claim; and
6. A review fee as adopted by the Board of Supervisors.

E. Supplemental treatment devices or systems require approval by the EHB and shall meet the following standards:

1. NSF certification for one or more of the following standards:
  - a. NSF/ANSI Standard 40: Residential Onsite Systems;
  - b. NSF/ANSI Standard 245: Nitrogen Reduction; or
  - c. Other NSF/ANSI standard that evaluates quality of wastewater effluent;
2. Two or more distributors within the State of California;
3. Prior approval of the proprietary supplemental treatment system by two or more other California counties; and
4. When a tank is included with supplemental treatment system, the tank shall meet the standards specified by subsection A of this Section.

5. The application materials shall include, but are not limited to, the following:
  - a. NSF certification and Evaluation Report;
  - b. Product specifications, design standards, and treatment objectives;
  - c. Installation manual;
  - d. Sample operation and maintenance manual;
  - e. Sample service contract;
  - f. List of qualified professionals authorized to provide operation and maintenance services within a two hundred fifty (250) mile radius of Monterey County;
  - g. Parts and/or service distributor information;
  - h. Five years of “live operation” performance history; and
  - i. Any further documentation as the EHB determines is necessary to ensure the protection of public health and safety.

F. The EHB shall issue a letter to the applicant granting approval to use the new septic tank or treatment technology when the proposed new product has been demonstrated to the satisfaction of EHB to meet the standards and specifications of this Section.

1. When a product or material has been approved by the EHB to decrease the minimum amount of infiltrative area required, this information shall also be specified.
2. When approval is not granted, the letter shall indicate disapproval and specify the standards that have not been met.

**15.20.230 - Septage disposal.**

Disposal of septage shall be accomplished in a manner acceptable to the Director. Septage shall be discharged to an authorized facility, such as a municipal wastewater facility or permitted solid waste site that accepts disposal of septage.

**15.20.240 - Septic tank pumper reporting program.**

A. Liquid waste haulers that conduct septic tank pumping in the incorporated and unincorporated areas of Monterey County must first obtain and continue to hold an unrevoked registration issued by the EHB pursuant to California Health and Safety Code Section 117405 et seq., as may be amended from time to time. The registration must be renewed each calendar year.

B. A registered liquid waste hauler shall prepare a report on a form approved by the EHB and shall submit the report to the EHB for each septic tank pump out completed in Monterey

County no later than ten business days after the end of the month that the septic tank pump out occurred. One report shall be completed for each tank that is pumped out.

C. EHB will notify a registered liquid waste hauler, in writing, if the hauler fails to report septic tank pump outs accurately or in a timely manner. A liquid waste hauler's continued lack of compliance with this Section or any other violation of federal or state law or County regulation may result in suspension, revocation or non-renewal of the annual liquid waste hauler registration with the County. The EHB may revoke the registration for cause upon providing ten days advance notice, served by registered mail or in person pursuant to California Health and Safety Code section 117445, as may be periodically amended.

**15.20.250 - Prohibited disposition of sewage and other waste matter.**

A. No person shall construct, use, or maintain any privy, cesspool, septic tank, gray water, sewage treatment works, sewer pipes or conduits, or other pipes or conduits for the treatment or discharge of sewage, impure waters, or any other matter or substance which is offensive or dangerous to health or sanitation, in such a manner as to: (1) overflow to any lands whatever; or (2) affect or enter any river, stream, creek, spring, lake.

B. No person shall accumulate, or allow to accumulate, or deposit upon the surface of the ground or within an unauthorized excavation on any premises owned and occupied by him or her, or under his or her possession and control, garbage, rubbish, trash, debris, refuse, cans, dead animals, or any offensive waste matter, unless a permit to do so, pursuant to State or county law, regulation, or ordinance, has been obtained.

C. No person shall accumulate, or allow to accumulate, on any premises owned and occupied by him or her, or under his or her possession and control, any garbage, rubbish, trash, debris, refuse, cans, dead animals, which may be attractive to insects or rodents, or may create offensive odor, or may be scattered by wind, unless such materials are enclosed in rodent-proof containers with tight-fitting lids. Such material shall be disposed at an approved disposal site at least every seven days.

D. No commercial scavenger or refuse collector or dumper shall place or deposit any garbage, rubbish, trash, debris, refuse, cans, dead animals, or any offensive waste matter upon any refuse disposal site without approval from the disposal site operator. Disposal site operators may require additional screening of wastes to prevent disposal of hazardous materials.

**15.20.260 - Enforcement and Penalties.**

A. Any failure to comply with any provision of this Chapter, including but not limited to failure to obtain permits required by this Chapter, failure to comply with a condition of a permit issued pursuant to this Chapter, failure to submit the specified monitoring and inspection information and reports, failure to undertake any specified corrective work required by the County, and failure to pay required fees, is unlawful and a violation of the County Code.

B. In the event of a violation of this Chapter, the County may in its discretion, in addition to all other remedies, take such enforcement action as is authorized under the Monterey County

Code and the LAMP and any other action authorized by law. If the County elects to utilize the administrative procedures set forth in Chapter 1.22 of the Monterey County Code to enforce this Chapter, the Director shall serve as the Enforcement Official. In the event of a violation, the County shall issue a notice of violation which shall specify the violation and provide for reasonable time for the responsible person to correct or otherwise remedy the violation unless the violation creates an immediate threat to the public health or safety.

C. Whenever one or more of the conditions of an OWTS installation or operating permit issued pursuant to this Chapter have not been, or are not being complied with, or when the permit was granted on the basis of false material information, written or oral, given willfully or negligently by the applicant, remedies may include suspension or revocation of the permit following notice and opportunity for hearing in accordance with Titles 1, 20, or 21 of this Code, as applicable. In the event of revocation of the permit, a new and separate OWTS application shall be required, subject to the standards of this Chapter and payment of applicable permit application fees.

D. Installation without a permit. In the case of installation of OWTS without obtaining all required permits, the County may, in addition to all other remedies, direct that all work cease and require that the property owner obtain the appropriate permit or demolish the OWTS. The property owner and qualified professional that commenced or completed the work may be subject to such enforcement action. To resume use of the OWTS that was installed or operated without the appropriate permits, the property owner must retroactively apply for an OWTS permit, subject to double application fees as penalty, and obtain all appropriate permits. Alternatively, if the County requires the property owner to discontinue use of the unpermitted OWTS or the property owner chooses to discontinue the use, the owner must apply for and obtain an OWTS demolition permit from the EHB and properly abandon or demolish the system.

**15.20.270- Penalties specific to qualified professionals.**

A. A cost recovery penalty may be assessed against the qualified installer when adequate notice is not provided pursuant to Section 15.20.120 of this Chapter or when additional inspections are necessary because the OWTS was not ready during a requested inspection. The penalty will be based on staff hours to evaluate documentation and complete the required inspection(s), invoiced at the current hourly rate as adopted by the Board of Supervisors.

B. When the EHB determines that a registered qualified professional has not complied with the standards of this Chapter, the EHB may revoke the qualified professional registration, suspend the registration for a fixed period of time, or disqualify the qualified professional from future registration for a period of time.

C. Prior to suspending or revoking a qualified professional registration, the EHB shall:

1. Issue a notice of intent to suspend or revoke the qualified professional registration. The notice of intent shall be in writing and shall describe with particularity the nature of the violation, including a reference to the statutory provision, standard, order or regulation alleged to have been violated. The notice of intent shall provide a reasonable time to correct or otherwise remedy the

violation. The notice of intent shall be served upon the registered qualified professional personally or by certified mail or by other means by which receipt has been verified.

2. A registered qualified professional may request a hearing to contest the proposed suspension or revocation of their qualified professional registration. The hearing shall be conducted in accordance with the administrative hearing procedures set forth in Chapter 1.22 of this Code, with the Director serving as the Enforcement Official. The administrative hearing shall be held as soon as possible after receipt of the request for hearing.
3. The Director may temporarily suspend any qualified professional registration issued pursuant to this Chapter prior to any hearing when the action is necessary to prevent an immediate threat to the public health or safety. The temporary suspension shall remain in effect until a final determination has been made.

**15.20.280 - Administration and enforcement—Right of entry.**

The Director and his or her authorized deputy(ies), assistant(s), or designee(s) shall administer and enforce the provisions of this Chapter. They shall have the right to enter any building or premises at all reasonable times to make an inspection to enforce any provision of this Chapter if the property owner or other person having charge or control of the building or premises consents or if EHB obtains an inspection warrant or other legally authorized means to secure entry.

**15.20.290 - Indemnification.**

Each permit approved pursuant to this Chapter shall require as a condition of the permit that the owner of the property for which the permit is issued and their successors in interest defend, indemnify, and hold harmless the County and its officers, agents, and employees from actions or claims of any description brought on account of approval of the permit or any injury or damages sustained, by any person or property, resulting from the issuance of the permit and the conduct of the activities authorized under said permit.

**15.20.300 – Administrative Manual**

The Board of Supervisors may, in its discretion, adopt an administrative manual to establish guidelines, procedures, and forms to implement the LAMP and this Chapter. Such manual may be adopted and updated periodically by resolution of the Board of Supervisors.

**15.20.310 – Incorporation of Tables**

Tables 1 through 13 set forth below and the standards set forth therein are hereby incorporated into this Chapter.

**Table 1. Allowable Average Densities per Subdivision**

<b>Average Annual Rainfall (inches per year)</b>	<b>Allowable Density (acres per single family dwelling unit or equivalent)</b>
0 - 15	2.5
>15 - 20	2.0
>20 - 25	1.5
>25	1.0

**Table 2. Nitrogen Loading Limitations Using Conventional OWTS:  
Each Residential Dwelling-Unit**

<b># of Bedrooms</b>	<b>Estimated Nitrogen Load on Site<sup>1</sup> (grams)</b>	<b>Minimum Acreage<sup>2,3</sup> (acres)</b>
1	20	0.50
2	30	0.75
3	40	1
4	50	1.25
5	60	1.5
6	70	1.75

<sup>1</sup> Add 10g Nitrogen per additional bedroom in a dwelling unit beyond 6 bedrooms.

<sup>2</sup> Add 0.25 acres per additional bedroom in a dwelling unit beyond 6 bedrooms.

<sup>3</sup> This standard shall not be construed to conflict with or supersede the minimum lot sizes for subdivisions specified by the Monterey County General Plan or Titles 20 or 21 of the Monterey County Code, as may be amended from time to time.

**Table 3. Minimum Horizontal Setback Distances for OWTS**

Setback Element		Septic Tank (feet)	Dispersal Field (feet)
1. Wells: Potable, Irrigation, Monitoring, Cathodic Protection		100 <sup>d</sup>	100 <sup>a</sup>
2. Wells: Geothermal		50	50
3. Domestic Water Supplies (that do not serve a public water system)		100 <sup>d</sup>	100 <sup>a</sup>
4. Public Water System Supply Wells (Existing)			
Where the dispersal system is less than or equal to 10 feet deep		100 <sup>d</sup>	150
Where the dispersal system is deeper than 10 feet and supplemental treatment has been incorporated		100 <sup>d</sup>	150 <sup>e</sup>
5. Public Water Systems' Surface Water Intake			
Where the effluent dispersal system is less than 1,200 feet from a public water systems' surface water intake, 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 (measured from high water mark of the reservoir, lake or flowing water body)		100 <sup>d</sup>	400
Where the effluent dispersal system is more than 1,200 feet but less than 2500 feet from a public water systems' surface water intake, 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 (measured from high water mark of the reservoir, lake or flowing water body)		100 <sup>d</sup>	200
6. Bodies of Water: Vernal Pools, Wetlands, Lakes, Ponds or other Surface Water Bodies)		100 <sup>d</sup>	200
7. Watercourse: measured from the high-water mark		100	100
8. Springs, natural or any part of man-made spring		100	100 <sup>a</sup>
9. Drainageway: measured from edge of flow path			
Up slope (when elevation of the bottom of the drainage way is at or above the elevation of the effluent distribution pipe)		25	25
Down slope (when elevation of the bottom of the drainage is below the elevation of the effluent distribution pipe)		25	50
10. Curtain Drains			
Up slope		10	<u>Requires Site Specific Engineering</u>
Down slope		10	50
11. Domestic Water Line		10	10

12. Building, Structure, or Mobile Home	5	10
13. Property Line	5	10
14. Large trees (when diameter of trunk is greater than or equal to 5 inches, measured 2 feet from ground level)	10	10
15. Downhill Embankment with change in slope greater than 20% or Cut Slope	10	4 x H <sup>bc</sup>
16. Steep slopes >50 percent (measured from the break of the slope)		
Height of steep slope is less than 12 feet	10	25
Height of steep slope is greater than or equal to 12 feet	10	50
17. In ground Swimming Pools/Spas		
Up slope (when the elevation of the bottom of the pool or spa is at or above the elevation of the OWTS component)	10	10
Down slope	10	25
18. Unstable Land Mass or Areas Subject to Landslides	100 <sup>c</sup>	100 <sup>c</sup>

<sup>a</sup> The required setback distance between a proposed well and existing seepage pits without supplemental treatment shall not be less than 150 feet.

<sup>b</sup> H equals the height of cut or embankment, in feet. The required setback distance shall not be more than 50 feet, measured from the distribution pipe.

<sup>c</sup> This distance may be reduced by up to 50% at the discretion of the Director if supported by recommendations in a geotechnical report and approved by EHB

<sup>d</sup> All new or replacement septic tanks, pump tanks and supplemental treatment system tanks will be tested and confirmed to be watertight prior to final inspection; therefore, a 100 feet horizontal setback is adequate to protect public water supply wells, bodies of water and public water system intake points from contamination.

<sup>e</sup> A disinfection unit shall be incorporated into the alternative OWTS with supplemental treatment when a variance is required for a replacement OWTS and this horizontal setback cannot be met.



**Table 4. Soil Application Rate and Minimum Vertical Separation from Bottom of Dispersal Field to Groundwater, Determined from Stabilized Percolation Rates**

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

<b>Percolation Rate (minutes per Inch)</b>	<b>Maximum Soil Application Rate (gallons per day per square foot)</b>	<b>Vertical Groundwater<sup>1</sup> Separation (feet)</b>
< 1	1.2 (Requires alternative OWTS with supplemental treatment)	Refer to Table 12 (Minimum Vertical Separation to Groundwater for Alternative OWTS)
1 – 5	1.2	20
6 – 10	0.8	8
11 – 17	0.7	8
18 – 24	0.6	8
25 – 33	0.5	8
34 – 42	0.4	5
43 – 51	0.3	5
52 – 60	0.3	5
61 – 66	0.18	5
67 – 72	0.16	5
73 – 78	0.14	5
79 – 84	0.12	5
85 – 90	0.1	5
> 90 – 120 <sup>2</sup>	0.1 (Requires alternative OWTS with supplemental treatment)	Refer to Table 12 (Minimum Vertical Separation to Groundwater for Alternative OWTS)

<sup>1</sup> Includes all groundwater that cannot be captured and redirected around an OWTS using a curtain drain system.

<sup>2</sup>When percolation testing yields slower than 90 MPI, the qualified professional shall incorporate 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 not required. No OWTS permit shall be issued when the percolation rate is slower than 120 MPI.

<b>Table 5. Soil Application Rate and Minimum Vertical Separation from Bottom of Dispersal System to Groundwater, Determined from Soil Texture, Structure and Grade</b>				
<i>(Source: OWTS Policy Tier 1 Table 4, based on US EPA Onsite Wastewater Treatment Systems Manual,</i>				
<b>Soil Texture (per the USDA Soil Classification System)</b>	<b>Soil Structure Shape</b>	<b>Grade</b>	<b>Maximum Soil Application Rate (gallons per day per square foot)</b>	<b>Vertical Groundwater<sup>1</sup> Separation (feet)</b>
Coarse Sand, Sand, Loamy Coarse Sand, Loamy Sand	Single grain	Structureless	0.8	20
Fine Sand, Very Fine Sand, Loamy Fine Sand, Loamy Very Fine Sand	Single grain	Structureless	0.4	8
Coarse Sandy Loam, Sandy Loam	Massive	Structureless	0.2	8
	Platy	Weak	0.2	8
		Moderate, Strong	Prohibited	n/a
	Prismatic, Blocky, Granular	Weak	0.4	8
Moderate, Strong		0.6	20	
Fine Sandy Loam, very fine Sandy Loam	Massive	Structureless	0.2	8
	Platy	Weak, Moderate, Strong	Prohibited	n/a
	Prismatic, Blocky, Granular	Weak	0.2	8
		Moderate, Strong	0.4	8
Loam	Massive	Structureless	0.2	8
	Platy	Weak, Moderate, Strong	Prohibited	n/a
	Prismatic, Blocky, Granular	Weak	0.4	8
		Moderate, Strong	0.6	20
Silt Loam	Massive	Structureless	Prohibited	n/a
	Platy	Weak, Moderate, Strong	Prohibited	n/a
	Prismatic, Blocky, Granular	Weak	0.4	8
		Moderate, Strong	0.6	20
Sandy Clay Loam, Clay Loam, Silty Clay Loam	Massive	Structureless	Prohibited	n/a
	Platy	Weak, Moderate, Strong	Prohibited	n/a
	Prismatic, Blocky, Granular	Weak	0.2	8
		Moderate, Strong	0.4	8
Sandy Clay, Clay, or Silty Clay	Massive	Structureless	Prohibited	n/a
	Platy	Weak, Moderate, Strong	Prohibited	n/a

	Prismatic, Blocky, Granular	Weak	Prohibited	n/a
		Moderate, Strong	0.2	8

<sup>1</sup> Includes all groundwater that cannot be captured and redirected around an OWTS using a curtain drain system.

<b>Table 6. Minimum Residential OWTS Design Volume and Septic Tank Capacity</b>		
<b>Number of Bedrooms</b>	<b>OWTS Design Volume (gallons per day)</b>	<b>Septic Tank Capacity</b>
1 bedroom or studio	150	1,000 gallons
2 bedrooms	300	
3 bedrooms	375	
4 bedrooms	450	1,500 gallons
5 bedrooms:	525	2,000 gallons
6 bedrooms:	600	
Each additional bedroom	add 75 gallons	Add 250 gallons
With garbage grinder (per unit)		Add 500 gallons

**Table 7. Domestic Wastewater OWTS Design Volumes for Commercial, Multi-Unit Residential, Industrial and Institutional Uses**

Type of Establishment	Gallons/Person/Day
Apartments (central laundry facility)	60
Apartments (with individual laundry facility)	75
Bars (no food preparation): 1,000 gallons +	15/seat
Per employee	20
Boarding House	50
Bowling Alleys (snack bar only)	75/lane
Camps:	
Campground w/ central comfort station	
Flush toilets only	25
Flush toilets and showers	35
Day camps (no meals served)	15
Resort Camps:	
Limited plumbing	50
Full plumbing including laundry	75
Summer and seasonal	50
Churches (Sanctuary: minimum of 1,000 gallons)	1 x church membership
W/ kitchen waste: 1,000 gallons +	1 x church membership
Condominiums:	
Central laundry facility	60
Individual laundry facility	75
Congregate Housing (w/ individual laundry and food preparation on-site)	75
With centralized laundry	(-15)
Without on-site laundry	(-20)
Without on-site food preparation	(-15)
Factory Workers (per 8 hr. shift exclusive of industrial waste):	
Without Showers	15
With Showers	35
Cafeteria, add	5/employee

Hotels:	
without private baths [per bed (2 people/bed)]	50
with private baths [per bed (2 people/bed)]	60
Institutions:	
Nursing home	125
Rest Home	125
Resident	75
Laundries (self-service; gallons/wash/customer)	50
Mobile Home Parks	
Per space – single wide	250
Per space - double wide	300
Motels	
per bed (2 people/bed)	50
with Kitchen [per bed (2 people/bed)]	60
Offices (8 hr. shift)	15
Parks:	
Picnic Parks:	
W/ toilets only	5
W/ toilets and showers	10
Trailer Parks:	
Individual hookup	250/space
Central restroom (shower and laundry)	200/space
Central restroom (shower only)	150/space
Central restroom only	100/space
Restaurants (Grease interceptors required):	
Full-service w/toilets:	1,000 gallons + 30/seat
Paper service type w/ toilets: 1,000 gallons +	15/seat
W/ bar add	15/bar seat
For each employee add	20
Rooming Houses	40
Schools:	
Elementary students	15

Intermediate and High	20
W/ gym and showers add	5
W/ cafeteria add	3
Boarding (total waste)	100
Service Stations: 1,000 gallons +	5/vehicle served
Single Family Dwellings (minimum 1,000 gallons)	75
Stores: (1,000 gallons minimum)	
Per employee	20
Per 10 square feet	1
Swimming Pools and Bath Houses	10
Theaters	
Auditoriums	5/seat
Drive-in	10/space

**Table 8. Maximum Allowable Ground Slope by Dispersal System Type**

Type of Dispersal System	≤ 20%	21-30%	31-40% <sup>1</sup>	41-50% <sup>2</sup>
At-Grade	X			
Cover Fill	X			
Mound	X			
Conventional Leach Field		X		
Seepage Pit with Supplemental Treatment		X		
Raised Sand Filter Bed			X	
Shallow-Pressure-Distribution			X	
Subsurface Drip Dispersal				X

<sup>1</sup> Supplemental treatment is required for slopes greater than 30%

<sup>2</sup> Supplemental treatment with disinfection is required for slopes greater than 40%

**Table 9. Performance Evaluation Requirements**

Type of Permit Application	Is a performance evaluation required to be conducted by a qualified professional?	
	Tank	Dispersal System
Septic tank replacement to allow for a building remodel or addition	Not applicable	Yes
Septic tank replacement that does not exceed the minimum standards of Table 6, Minimum Septic Tank Capacity	Not applicable	No. Existing dispersal system shall be allowed to remain in use.
Dispersal system replacement to allow for a for a building remodel or addition	Yes	Not applicable
Dispersal system replacement that does not exceed the minimum infiltrative area as calculated using Soil Application Rate (Table 4 or 5) and the OWTS Design Volume (Table 6 or 7)	Yes	Not applicable
Building remodel and/or addition, that proposes additional bedrooms or that will increase wastewater generation	Yes	Yes
Building remodel and/or addition, that proposes to change the habitable area of a residential structure by 500 square feet or more	Yes	Yes
Addition to, tenant improvement of, or change of use of a commercial/industrial structure	Yes	Yes
Subdivision of land with existing OWTS	Yes	Yes

**Table 10. Retention and Reassessment of Existing, Non-Conforming Dispersal Systems**

<b>Does the Project Propose to Increase Wastewater Volume or Strength?  Or Electively Increase Capacity?</b>	<b>Does the Dispersal System Meet Water-Related Horizontal Setbacks?</b>	<b>Does the Dispersal System Meet Vertical Groundwater Setbacks?</b>	<b>Can Existing, Non-Conforming OWTS Dispersal System be Retained?</b>	<b>Can the Existing Dispersal Capacity be Reassessed?</b>
No	No	No	Yes: Supplemental Treatment Required <sup>2,3</sup>	No
		Yes <sup>1</sup>	Yes <sup>3</sup>	No
	Yes	No	Yes: Supplemental Treatment Required <sup>2</sup>	No
		Yes <sup>1</sup>	Yes <sup>3</sup>	No
Yes	No	No	Yes: Supplemental Treatment Required <sup>2,3</sup>	No
		Yes	Yes: Supplemental Treatment Required <sup>3</sup>	Yes
	Yes	No	Yes: Supplemental Treatment Required <sup>2</sup>	No
		Yes	Yes: Supplemental Treatment Required	Yes

<sup>1</sup> When the EHB determines that there is a high potential for subsurface perched or sheeting water, or high seasonal groundwater levels, based on EHB records or site conditions, a groundwater monitoring boring may be required at the discretion of the EHB. The timing of the boring (i.e. wet weather testing) will be determined on a case by case basis by the EHB in consultation with the qualified professional.

<sup>2</sup> The existing dispersal system is eligible to remain in use provided a supplemental treatment system with nitrogen reduction is incorporated into the OWTS and adequate vertical separation exists between the bottom of the existing dispersal system and high seasonal groundwater as determined by Table 4 or 5 of this Chapter.



<sup>3</sup> The existing dispersal system is eligible to remain in use provided the qualified professional demonstrates to the satisfaction of the EHB that continued use of the dispersal system will not pose a risk to surface water, groundwater or public health.

**Table 11 - Effluent Constituent Limitations for Supplemental Treatment Systems**

Type of Dispersal System	Average Effluent Concentrations (mg/L)		
	5-Day Biological Oxygen Demand (BOD)	30-Day Average Total Suspended Solids	Total Nitrogen (TN) <sup>1,2</sup>
<b>New or Expansion Dispersal Systems with Infiltrative Area Depth More Than 2 Feet, including Seepage Pits</b>	30	30	50% reduction or 25 mg/L, whichever is lower (NSF Standard 245, or equivalent)
<b>Replacement Conventional Dispersal Systems with Infiltrative Area Depth More Than 5 Feet</b>			
<b>Dispersal Systems with Infiltrative Area Depth 3 Feet or Less</b>	30	30	Not required
<b>Drip Dispersal Systems</b>	20	20	Only required when vertical separation to groundwater per Table 4 or Table 5 cannot be met, 50% reduction or 25 mg/L, whichever is lower (NSF Standard 245, or equivalent)
<b>Alternative Dispersal Systems Installed to Overcome Minimum Horizontal Setbacks to Groundwater, per Table 2</b>	30	30	50% reduction or 25 mg/L, whichever is lower (NSF Standard 245, or equivalent)
<b>Detection Limit (mg/L)</b>	2	5	1

<sup>1</sup> Determined as the sum of nitrate-nitrogen plus total kjeldahl nitrogen

<sup>2</sup> Unless specifically required by the LAMP or this Chapter, supplemental treatment systems are not required to meet effluent limitations for Total Nitrogen.

**Table 12. Minimum Vertical Separation to Groundwater by Type of Alternative OWTS**

Type of Dispersal System	Vertical Separation to Groundwater (feet) <sup>1</sup>			
	2'	3'	5'	10'
Supplemental Treatment and Disinfection At-Grade Mound Raised Sand Filter Bed Shallow pressure distribution Subsurface Drip Dispersal	X			
Supplemental Treatment At-Grade Conventional Leachfield Trench Mound Raised Sand Filter Bed Shallow pressure distribution Subsurface Drip Dispersal		X		
Pressurized systems without Supplemental Treatment At-Grade Mound Shallow Pressure Distribution			X	
Seepage Pits with Supplemental Treatment and Disinfection				X
Seepage Pits with Supplemental Treatment				X

<sup>1</sup> Measured from the bottom of the dispersal system to the seasonal high-water table.

**Table 13. Minimum Soil Depth Below Dispersal System and Bedrock or Impervious Layer**

Type of Dispersal System	Minimum Soil Depth (feet) <sup>1</sup>	
	2'	3'
Conventional Septic Tank and: At-Grade Shallow Pressure Distribution (includes Bed Systems) Leachfield Trench		X
Supplemental Treatment and: At-Grade Raised Sand Filter Bed Shallow Pressure Distribution (includes Bed Systems) Subsurface Drip Dispersal Mound	X	

<sup>1</sup> Measured from the bottom of the dispersal system

SECTION 2. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The Board of Supervisors hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared invalid.

SECTION 3. This ordinance shall become effective on the thirty-first day following its adoption.

PASSED AND ADOPTED on this \_\_\_ day of \_\_\_\_\_, 2023, by the following vote:

- AYES:
- NOES:
- ABSENT:
- ABSTAIN:

\_\_\_\_\_  
 Luis A. Alejo, Chair  
 Monterey County Board of Supervisors


A T T E S T:

Valerie Ralph  
Clerk of the Board of Supervisors

By: \_\_\_\_\_

Deputy

APPROVED AS TO FORM BY:

DocuSigned by:  
  
 \_\_\_\_\_  
57334506DB194BC  
 Wendy S. Strimling  
 Deputy County Counsel