

## Chapter 15.20 - SEWAGE DISPOSAL

### Sections:

15.20.005 - Derivation of regulatory authority.

On May 10, 2018, the Regional Water Quality Control Board, Central Coast Region (hereafter, "Central Coast Water Board") approved Resolution No. R3-2018-0004 to adopt the Monterey County Local Agency Management Program (LAMP) for Onsite Wastewater Treatment Systems (OWTS). The LAMP was prepared in accordance with standards set forth in Tier 2 of the Water Quality Control Policy for siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (hereafter, "OWTS Policy") approved June 19, 2012 by the State Water Resources Control Board by way of State Water Board Resolution No. 2012-0032. In accordance with the OWTS Policy, "Once the Local Agency Management Program is approved, new and replacement OWTS that are included within the Local Agency Management Program may be approved by the Local Agency."

15.20.010 - Definitions.

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

- A. **Aerobic.** Aerobic means an environment providing readily available (molecular) oxygen to aerobic bacteria metabolizing wastewater.
- B. **Alternative Onsite Wastewater Treatment System.** Alternative onsite wastewater treatment system is a type of OWTS that utilizes either supplemental treatment and/or a method of wastewater dispersal other than a conventional leachfield for the purpose of producing a higher quality wastewater effluent and improved performance of and siting options for effluent dispersal.
- C. **Anaerobic.** Anaerobic means septic, an environment with an absence of molecular oxygen. Anaerobic bacteria obtain their oxygen to metabolize wastewater from organic compounds and water.
- D. **At Grade System.** At grade system is a type of alternative OWTS dispersal system consisting of a gravel distribution bed placed on top of a tilled, in situ soil absorption area, which is then covered by a minimum of 12 inches of suitable soil that will support vegetative growth. Wastewater effluent is applied to the gravel distribution bed using pressure distribution.
- E. **Basin plan.** Basin plan means the same as "water quality control plan" as defined in Division 7 (commencing with Section 13000) of the California Water Code. Basin plans are adopted by each Regional Water Quality Control Board, approved by the State Water Board and the Office of Administrative Law, and identify surface water and groundwater bodies within each Region's boundaries and establish, for each, its respective beneficial uses and water quality objectives.

- F. Bedrock. Bedrock means the rock, usually solid, that underlies soil or other unconsolidated, surficial material.
- G. Bedroom. A bedroom is any room in the conditioned (heated) area of a dwelling unit which is:
  - 1. 70 square feet or greater in size; and
  - 2. Includes an exterior door or window for egress meeting health and safety code standards; and
  - 3. Includes a closing door that separates the room from other features of the dwelling.

The following shall not be considered a bedroom: Any interior room that must be passed through to access another bedroom; a hallway; bathroom; kitchen; living room; dining room; family room; breakfast nook; pantry; laundry room; closet/dressing room opening off of a bedroom.

- H. Beneficial uses. Beneficial uses means those qualities in waters of the state that may be protected against quality degradation that include, but are not necessarily limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; esthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife and other aquatic resources or preserves.
- I. Biological Oxygen Demand (BOD). 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.
- J. Biomat. Biomat means the layer of biological growth and inorganic matter that forms at the wastewater-soil interface or infiltrative surface, and may extend as far as 1 inch into the soil matrix. It provides physical, chemical, and biological treatment of the OWTS effluent as effluent migrates toward groundwater.
- K. California Environmental Data Exchange Network (CEDEN). California Environmental Data Exchange Network is a website operated by the State Water Resource Control Board that serves as a central location to find and share information about California's water bodies, including streams, lakes, rivers and the coastal ocean. [www.ceden.org](http://www.ceden.org)
- L. Central Coast Regional Water Quality Control Board (Central Coast RWQCB). Central Coast RWQCB means Region 3 of the Regional Water Quality Control Boards as designated by Water Code Section 13200. Any reference to an action of the Regional Water Board in this LAMP also refers to an action of its Executive Officer, including the conducting of public hearings, pursuant to any general or specific delegation under Water Code Section 13223.

- M. Cesspool. Cesspool means an excavation in the ground receiving domestic wastewater, designed to retain the organic matter and solids, while allowing the liquids to seep into the soil. Cesspools differ from seepage pits because cesspool systems are not preceded by a septic tank and are not authorized under this LAMP. The term cesspool does not include pit-prives and out-houses which are not regulated under this ordinance.
- N. Clay. Clay is a kind of soil particle; the term also refers to a type of soil texture. As a soil particle, clay consists of individual rock or mineral particles in soils having diameters <0.002 mm. As a soil texture, clay is the soil material that is comprised of 40 percent or more clay particles, not more than 45 percent sand and not more than 40 percent silt particles using the USDA soil classification system.
- O. Cobbles. Cobbles mean rock fragments 76 mm or larger using the USDA soil classification systems.
- P. Contour Loading Rate. Contour loading rate, also known as linear loading rate, means the amount of effluent loaded to the soil per the length of the dispersal unit or units along the single hillslope along the contour. The contour loading rate is determined on the relationship between the vertical and horizontal water movement in the soil and is based on 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.
- Q. Conventional OWTS. Conventional OWTS means an OWTS consisting of a septic tank with the effluent discharging into a subsurface leachfield.
- R. Curtain drain. 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.
- S. Director. Director means Director of Monterey County Environmental Health Bureau, or the Director's authorized deputy(ies), assistant(s), or designee(s).
- T. Dispersal system. Dispersal system means a leachfield, seepage pit, mound, at-grade, subsurface drip field, evapotranspiration and infiltration bed, or other type of system for final wastewater treatment and subsurface discharge.
- U. Domestic wastewater. Domestic wastewater means wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals and is defined as having a thirty (30) day average concentration of the following constituents prior to a septic tank or supplemental treatment component:
1. BOD less than or equal to 300 milligrams per liter (mg/L); or
  2. TSS less than or equal to 330 mg/L; or

3. FOG less than or equal to 100 mg/L; or
4. TN less than 75 mg/L.

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

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

Domestic wastewater does not include wastewater from industrial processes.

- V. Downhill embankment. Downhill embankment means an embankment that has a slope of thirty (30) percent 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 manmade or created by natural processes. Examples: manmade (e.g. road cuts, pool/spa excavations etc.); natural (e.g. thirty (30) percent slope, erosion gully, cliff face, etc.).
- W. Drainageway. Drainageway means a natural or artificial channel that is not a watercourse as defined by this LAMP. Examples of a drainage way include irrigation and drainage ditches that flow only for hours or days following rainfall, grass-lined swales, concrete-lined canals, and storm water runoff devices.
- X. Dwelling Unit. 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. A guesthouse, as defined in Monterey County Zoning Code (Titles 20 and 21) is not considered a dwelling unit.
- Y. Effective Depth. Effective depth means the depth of the useable, permeable layers of soil below the bottom of the distribution pipe in a dispersal system.
- Z. Effluent. 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.
- AA. Electronic Deliverable Format (EDF). EDF is a comprehensive data standard designed to facilitate the transfer of electronic files between data producers and data users. The EDF may be used for the production of hard copy reports, electronic data review, or data summaries,
- BB. Existing OWTS. Existing OWTS means an OWTS that has been installed and is currently in operation, and any OWTS for which an OWTS installation permit was approved prior to May 10, 2018 and has not expired.

- CC. Fats, Oils and Grease (FOG). FOG measures biological lipids and mineral hydrocarbons. The analytical test for FOG does not measure an absolute quantity but is useful in making comparisons of wastewater. High FOG results in a highly increased biological demand on downstream OWTS components and may drastically shorten the life of the system.
- DD. Gray Water. Gray water means untreated wastewater that has not been contaminated by any toilet discharge, and has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes (Health and Safety Code section 17922.12). Gray water includes used water from bathtubs, showers, bathroom wash basins, clothes washing machines and laundry tubs. Gray water does not include wastewater from kitchen sinks or dishwashers.
- EE. Gray Water System. Gray water system is a disposal system that disposes of gray water subsurface and conforms with the latest edition of the California Plumbing Code.
- FF. Groundwater. Groundwater means water below the land surface and includes perched water or subsurface sheeting water.
- GG. Guesthouse. Guesthouse means the same as described in Monterey County Zoning Ordinances (Titles 20 and 21) and is considered a detached bedroom(s) for purposes of sizing the OWTS.
- HH. Health Department. Health Department means the Monterey County Health Department.
- II. High Strength Wastewater. High strength wastewater is defined as wastewater with a measured strength greater than domestic wastewater and is defined as having a thirty (30) average concentration of the following constituents prior to the septic tank or a supplemental treatment component:
1. BOD greater than 300 milligrams per liter (mg/L); or
  2. TSS greater than 330 mg/L; or
  3. FOG greater than 100 mg/L; or
  4. TN greater than 75 mg/L.
- JJ. Infiltrative Area. 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.
- KK. International Association of Plumbing and Mechanical Officials (IAPMO). IAPMO is a service organization, providing code development assistance, industry-leading education, plumbing and mechanical product testing and certification,

building product evaluation and a manufacturer-preferred quality assurance program.

- LL. Impervious layer or material. Impervious layer or material is characterized as having a percolation rate slower than one hundred twenty (120) minutes per inch or having clay content of sixty (60) percent or greater.
- MM. Local Agency Management Program for Onsite Wastewater Treatment Systems in Monterey County (LAMP). LAMP means the regulatory document approved by the Monterey County Board of Supervisors of April 10, 2018 and the Central Coast Regional Water Quality Control Board on May 10, 2018, which conforms to all of the applicable Tier 2 criteria listed in the OWTS Policy, including adherence to the prohibitions specified in Section 9.4 of the Policy.
- NN. Leachfield. 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”.
- OO. Mottling. Mottling means a soil condition that results from oxidizing or reducing minerals due to soil moisture changes from saturated to unsaturated over time. Mottling is characterized by spots or blotches of different colors or shades of color (grays and reds) interspersed within the dominant color as described by the USDA soil classification system. This soil condition can be indicative of historic seasonal high groundwater level, but the lack of this condition may not demonstrate the absence of groundwater.
- PP. Mound system. Mound system is a type of alternative OWTS dispersal system consisting of an aboveground, covered sand bed with effluent leachfield elevated above original ground surface inside, used to enhance soil treatment, dispersal, and absorption of effluent discharged from an OWTS treatment unit such as a septic tank. Mound systems have a subsurface discharge.
- QQ. NSF. NSF is an acronym for National Sanitation Foundation (also known as NSF International), a not for profit, non-governmental organization that develops health and safety standards and performs product certification.
- RR. New OWTS. New OWTS means an OWTS permitted after the effective date of this LAMP. A new OWTS is any new system installed to serve a new structure or an elective rebuild of an existing structure. For example, a rebuild of a fire damaged structure is not considered a New OWTS.
- SS. Nitrogen. Nitrogen is of concern due to its impact on groundwater and surface water. e environment. Nitrogen acts as a potentially limiting nutrient for photosynthetic autotrophs in surface water and as a potential health risk in groundwater. The principal forms of nitrogen found in wastewater are organic nitrogen (Organic-N), ammonia nitrogen (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). These forms of nitrogen are expressed either individually or as components of the following:

1. Total Kjeldahl Nitrogen (TKN), which is the sum of (Organic-N) + (NH<sub>3</sub>-N)
  2. Total Inorganic Nitrogen (TIN), which is the sum of (NH<sub>3</sub>-N) + (NO<sub>2</sub>-N) + (NO<sub>3</sub>-N)
  3. Total Nitrogen (TN), which is the sum of (TKN) + (NO<sub>2</sub>-N) + (NO<sub>3</sub>-N)
- TT. Oil/Grease interceptor means a passive interceptor that has a rate of flow exceeding 50 gallons-per-minute and that is located outside a building. Oil/grease interceptors are used for separating and collecting oil and grease from wastewater.
- UU. Onsite Wastewater Treatment System (OWTS). OWTS means individual wastewater disposal systems, community collection and disposal systems, and alternative collection and disposal systems that use subsurface disposal. The short form of the term may be singular or plural. OWTS do not include gray water systems pursuant to Health and Safety Code Section 17922.12.
- VV. OWTS Policy. OWTS Policy is the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems as adopted by the State Water Resources Control Board on June 19, 2012.
- WW. Pathogens. Pathogens mean disease-causing microorganisms. Their presence is indicated by sampling wastewater for coliform bacteria.
- XX. Perched Water. Perched water, which includes sheetwater, means subsurface drainage or groundwater that flows in a relatively thin sheet upon an impervious or very slowly permeable soil layer, such as clay.
- YY. Percolation test. Percolation test is a method of testing water absorption of the soil. The test is conducted with clean water and test results can be used to establish the dispersal system design.
- ZZ. Percolation rate. Percolation rate means the speed at which water moves through soil, usually reported in minutes per inch.
- AAA. Permeable Rock. Permeable rock means decomposed granite, shale or other weathered bedrock formations. For the purposes of this LAMP, permeable rock may be considered a viable substrate to accommodate a dispersal system provided stabilized percolation rates and vertical separation requirements as determined by this LAMP to groundwater, consolidated bedrock or another impervious layer have been met.
- BBB. Person. Person means any individual, firm, association, organization, partnership, business trust, corporation, company, State agency or department, or unit of local government who is, or that is, subject to this LAMP or the OWTS Policy.

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

DDD. Qualified professional. Qualified professional means an individual licensed or certified by a State of California agency to design, install, and/or maintain OWTS and to practice as professionals for other associated reports, as allowed under their license or registration. Qualified professionals must obtain an annual registration from the Health Department.

EEE. Repair. Repair means either: (1) for a dispersal system, 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; (2) for a septic tank, patching cracks that do not degrade the tank structural integrity and do not allow wastewater to exfiltrate or allow groundwater to infiltrate the tank.

FFF. Reserve Area. Reserve area means an accessible area that shall be available to accommodate a minimum of one replacement dispersal system without utilization or disruption of the initial installation(s).

GGG. Reservoir. Reservoir means a pond, lake, basin or other space either natural or created in whole or in part by the building of engineering structures, which is used for storage, regulation and control of water, recreation, power, flood control or drinking. A detention pond designed to meter runoff water during a storm event is not considered a reservoir.

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

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

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

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

LLL. Septic tank. 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.

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

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

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

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

QQQ. Soil Texture. Soil texture means the soil class that describes the relative amount of sand, clay, silt and combinations thereof as defined by the classes of the soil textural triangle developed by the United States Department of Agriculture.

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

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

TTT. Surface Water Ambient Monitoring Program (SWAMP). SWAMP is a comprehensive surface water monitoring and assessment program managed by the State Water Resources Control Board.  
[https://www.waterboards.ca.gov/water\\_issues/programs/swamp/](https://www.waterboards.ca.gov/water_issues/programs/swamp/)

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

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

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

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

YYY. Watercourse. Watercourse means any of the following:

1. A stream or surface water feature as mapped by the United States Geological Survey (USGS); or
2. Any channel with a bed, banks, or sides throughout substantially all its length that is not mapped by the USGS that consistently conveys water for more than 3 months out of the year or is used by fish;

15.20.020 - Flush toilets required—Exceptions.

No person(s) shall use or maintain any building, structure, or place where people reside, congregate, or are employed unless:

- A. It is equipped with a flush toilet supplied with water from a reliable source of water as determined by the EHB. A reliable source of water is not considered to be 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 Section 15.020.040 of this Chapter to an approved sanitary sewer system
  1. In the interest of public health, exceptions may be considered for remote public restrooms (i.e. remote trailheads), maintained by a public agency, where there is no existing infrastructure to supply water and it would be prohibitive to construct.;
  2. Vault toilets (watertight, lined privies) may also be considered for use on private lands when recycled water irrigation is in place and there is no existing potable

water infrastructure available. An annual operating permit shall be obtained from the EHB to verify that a service contract with a licensed liquid waste hauler is in place to provide routine pumping and maintenance.

- B. It is a construction job site or other place where a privy is permitted by the following provisions of the Health and Safety Code and the California Code of Regulations of the State of California:
1. Construction sites: Health and Safety Code, Division 5, Part 3, Chapter 6, Article 2, Section 5416 or as subsequently amended; or
  2. A mobile workplace (i.e. work crews that move from one worksite to another worksite) and it is determined by the EHB 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: Health and Safety Code, Division 5, Part 3, Chapter 6, Article 2, Section 5415 or as subsequently amended; or
  3. A site where food crop growing and harvesting is occurring Health and Safety Code, Division 104, Part 6, Chapter 11, Article 4, Sections 113310-113360 and California or as subsequently amended; or
  4. It is a place where the use of a privy is mandated by State law.

#### 15.20.030 - Wastewater disposal.

No person shall use or maintain a building, structure or place where people reside, congregate or are employed unless all waste water discharge lines are connected either to an OWTS complying with the standards specified in this ordinance, or when required by Section 15.20.040 of this Chapter, to an approved sanitary sewer system.

- A. In cases where a Qualified Professional has determined that severe constraints on an existing lot of record have left no viable area to accommodate an adequate OWTS to serve an existing, legally established structure and when all options for subsurface dispersal have been exhausted, including alternative dispersal systems, the use of a haul away system may be allowed with concurrence from the EHB and the Monterey County Building Official. An annual operating permit shall be obtained from the EHB to verify that a service contract with a licensed liquid waste hauler is in place to provide routine maintenance of the system.

#### 15.20.035 - Septage disposal.

Any septic tank pump out in Monterey County shall be completed by a liquid waste hauler licensed with the Monterey County Health Department. Disposal of septage shall be accomplished in a manner acceptable to the EHB (such as a municipal wastewater facility or a permitted solid waste site that accepts disposal of septage).

15.20.036 - Septic Tank Pumper Reporting Program. Liquid waste haulers with valid permit to conduct pumping in Monterey County shall submit a report to the EHB for each septic tank pump out completed in Monterey County on a form approved by the EHB. One report shall be completed for each tank that is pumped out. The report shall be submitted to the EHB no later than ten (10) business days after the end of the month that the septic tank pump out occurred. A liquid waste hauler that fails to report septic tank pump outs accurately or in a timely manner shall be first notified in writing by the EHB and is subject to revocation or non-renewal of the annual liquid waste hauler permit at the discretion of the EHB.

15.20.040 - Required connection to public sewers.

- A. Except as provided in subdivision B of this Section, no person shall use or maintain any building or structure where people reside, congregate, or are employed which is located more than 300 feet of an approved sanitary sewer, on a parcel of land which abuts a road, street, or alley in which any such sewer has been installed, unless it is connected to such sewer.
- B. The sewer connection specified in subdivision A of this Section shall not be required if:
  - 1. Such building or structure is connected to an OWTS which is functioning in a lawful manner. A system that requires the pumping of contents more frequently than twice a year 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 annexation into the service area is not supported by the Monterey County Local Agency Formation Commission; or,
  - 3. The owner or lawful possessor of the building or structure is unable to obtain any necessary easement for the connection pipe; or,
  - 4. For replacement OWTS only, where the connection fees and installation cost are greater than double the total estimated cost of the replacement OWTS, be it a conventional or alternative OWTS as deemed necessary to comply with the minimum standards of this LAMP, when a qualified professional has determined the replacement OWTS can meet the standards of this LAMP and that the continued use of OWTS will not impact groundwater or surface water to a degree that makes it unfit for drinking or other uses.

15.20.050 – Special Events and Public Assemblages.

No person shall promote or conduct, nor shall any person, on property owned by such person permit or allow any activity or activities involving the assemblage of people including but not limited to circuses, carnivals, festivals, picnics, barbecues or races

without providing adequate flush toilets connected to an approved sewage disposal system. If the use is less than 30 days per calendar year adequate chemical toilets may be used. When food will be available for consumption or sale, adequate hand washing facilities with soap, water and paper towels shall be provided.

- A. For the purposes of this section adequate flush toilets or adequate chemical toilets shall mean no less than one separate toilet seat per sex or no less than one toilet per 40 persons, whichever number is greater.
  - 1. All toilets must be serviced and cleaned at least once a day. All toilets must be clean, sanitary and serviceable at all times. Toilet paper must be provided.
  - 2. Chemical toilets shall be pumped at least once per day, or more often if necessary, by a liquid waste hauler permitted 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.
    - a. If toilets are pumped and emptied twice a day, one toilet seat per 80 persons shall be adequate.
    - b. If toilets are pumped and emptied three times a day, one toilet seat per 120 persons shall be adequate.
- B. For the purposes of this section adequate hand washing facility means one (1) hand wash basin, with soap and paper towels, per 10 chemical toilets.
- C. Publicly owned facilities, such as buildings, parks, beaches and recreation areas are exempt from the provisions of this Section.

#### 15.20.060 - Septic tank system/graywater system permits.

- A. Except when a privy is permitted by Sections 15.20.020 and 15.20.030 of this Chapter, no person shall either as a principal or as an agent, do any of the following things without first obtaining an OWTS or a graywater system 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, and which is not required by law or ordinance to be connected to a sanitary sewer system;
  - 2. Excavate for, construct or otherwise install or emplace a septic tank, dispersal system or non-clothes washer graywater system, or any part thereof;
  - 3. Excavate for, construct or otherwise install or emplace a graywater system, or any part thereof, excepting a clothes washer system as allowed by Chapter 15 of the California Plumbing Code;
  - 4. Repair or reconstruct an existing septic tank system or graywater system, or any part thereof.

- B. All new septic tank systems, or any part thereof, and all repairs to existing septic tank systems, or any part thereof, shall comply with the standards, specifications, and regulations set forth in this Chapter.
- C. All new graywater systems, or any part thereof, and all repairs to existing graywater systems, or any part thereof, shall comply with the standards and design specifications set forth by the California Plumbing Code, Chapter 15.
- D. An application for a new, expansion or replacement OWTS or graywater system permit shall be in writing, on an EHB-approved form. An OWTS Feasibility Report shall be submitted with the application and shall contain the following information:
  - 1. Subject property address and Assessor's Parcel Number
  - 2. Acreage of subject property
  - 3. Water source(s) for subject property
  - 4. Description of the proposed project, or for replacement OWTS, existing conditions
  - 5. Estimated daily volume of wastewater generation
  - 6. Determination that nitrogen loading meets minimum standards, or a nitrogen loading assessment
  - 7. Specify if subject property is located within a Potential Groundwater Recharge Area
  - 8. Summary of soil profile analysis, including but not limited to:
    - a. Thickness, depth and texture of soil layers encountered
    - b. Depth to bedrock, hardpan or impervious layer
    - c. Depth to groundwater – as determined by direct observation and/or the highest extent of soil mottling
    - d. Evidence of soil mottling or gleying
    - e. Other conditions affecting the potential use of the soil for sewage disposal, including but not limited to the evidence of roots, fissures, and dampness
  - 9. Summary of absorptive characteristics of soil, either by direct inspection of percolation testing, and recommended Soil Application Rate (SAR) for each dispersal system
  - 10. Summary of conformance or non-conformance with horizontal and vertical setback requirements for conventional OWTS
  - 11. Elevation of house sewer outlet and proposed elevation of septic tank and dispersal system(s)

12. Scaled site plan (1 inch = 40 feet, or larger) showing the location of:

- a. Property lines and all recorded easements
  - b. All existing and proposed structures and hard surfaces, such as patios, driveways, walk, etc.
  - c. Existing or proposed well(s), whether domestic or irrigation, and whether in use or abandoned, either on the property or within one hundred feet of the property
  - d. Existing trees to remain in place (within 20 feet of septic system)
  - e. Existing or proposed embankments with slopes exceeding thirty (30) percent or any existing or proposed downhill cuts whether natural or manmade. Any proposed manmade cuts or excavations depicting height, length and/or area must also be shown (e.g. road cuts, pool/spa excavations, basements, pad cuts, etc.)
  - f. Water Bodies (rivers, creeks, pond, lake, ocean)
  - g. Existing OWTS on the property
  - h. Proposed OWTS
  - i. All applicable horizontal setbacks
- E. Application for a septic tank demolition permit does not require a comprehensive OWTS feasibility report but shall be accompanied by a scaled site plan. All OWTS permit applications shall be signed by the owner of the property or his or her authorized agent, and shall be accompanied by a fee as prescribed in Chapter 1.40 (Monterey County Fee Resolution) of the Monterey County Code.
- F. Installation of Primary and Secondary Dispersal Systems and Future Replacement area. Two (2) dispersal systems that meet the minimum specifications of this Chapter shall be installed at initial installation and separated by a diversion valve; these are referred to as the primary and secondary dispersal systems.
1. No new OWTS permit shall be approved for a lot created after June 26, 1981 unless the property contains sufficient suitable land area for a future (tertiary) dispersal system that is equal to or greater than the land area necessary to accommodate the larger of the primary or secondary dispersal systems. The area of the future (tertiary) dispersal system may be reduced based on recommendation of a qualified professional based on site-specific soil evaluation.
    - a. Where installation will make the future (tertiary) area inaccessible to necessary repair equipment, installation of the standby disposal field(s) shall be required at initial installation.
  2. The qualified professional may submit a written variance request from the standards of this section to the EHB if site conditions preclude the installation of the primary and secondary system at initial installation, or insufficient area is available to accommodate a tertiary dispersal system. In these cases, a deed

restriction shall be recorded to the property on a form approved by the EHB and at the property owner's expense to notify the current and future property owners that the OWTS does not meet minimum OWTS standards and that no construction permit proposing additional development that could increase the volume of estimated daily wastewater generation will be approved by EHB until such time that the secondary system is installed, and notify that the installation and use of an alternative OWTS with supplemental treatment may be required for future OWTS replacement.

G. Minimum lot size required for issuance of an OWTS permit:

1. New Subdivisions of Land. On new divisions of land, when the lot is to be served by an OWTS and domestic water is served by a water system of two or more service connections, the lot size shall not be less than one gross acre and the lot size criteria in Table 1, Nitrogen Loading Limitations and Minimum Lot Size (in addition to the other siting criteria of this Chapter) shall also be met.
  - a. This requirement shall apply to any proposed land division submitted to the County after May 10, 2018, and any pending subdivision applications that were not determined to be complete prior to May 10, 2018, when it/they will rely on OWTS.
2. The subdivider shall clearly demonstrate that the continued use of OWTS will not adversely affect groundwater or other beneficial water uses and that the anticipated use(s) will comply with all the requirements of this Chapter.
3. Existing Lots of Record. Development shall be in accordance with the applicable land use plan and/ or applicable Land Use Regulation. No proposed development shall be recommended for approval by EHB unless the said development conforms to Table 1, Minimum Lot Size Requirements for establishing Nitrogen Loading Limits.

**Table 1 - Nitrogen Loading Limitations and Minimum Lot Size**

<b># Bedrooms per Dwelling Unit</b>	<b>Estimated Wastewater Generation (gallons)<sup>3,4</sup></b>	<b>Estimated Nitrogen Loading (grams per day)<sup>1,2</sup></b>	<b>Minimum Lot Size<sup>5,6</sup></b>
1	150	20	None
2	225	30	0.75 acres
3	300	40	1.0 acres
4	375	50	1.25 acres
5	450	60	1.5 acres
6	525	70	1.75 acres

<sup>1</sup> Assumes influent (untreated, domestic wastewater) Total Nitrogen concentration of 35 mg/L.

<sup>2</sup> Add 10g Nitrogen per additional bedroom

<sup>3</sup> Assumes 2 people in the first bedroom, 1 additional person per each additional bedroom. Add 75 gallons per additional bedroom.

<sup>4</sup> Estimated wastewater generation and nitrogen loading from a secondary or accessory dwelling unit on the property shall not be calculated from the aggregate number of bedrooms between the two units, but instead from the cumulative value of each independent dwelling unit.

<sup>5</sup> Add 0.25 acres per additional bedroom in each dwelling unit on the property.

<sup>6</sup> This standard shall not be construed to conflict with or supersede the minimum lot sizes specified by Table PS-1 (footnote 5) and PS-2 of the 2010 Monterey County General Plan or Titles 20 or 21 of the Monterey County Code.

- a. When development proposed on a property that is or will be served by an OWTS does not conform with Table 1 of the Chapter, a qualified professional shall prepare a technical report at the property owner's expense, which determines the proportionate quantity of nitrogen loading allowable based on acreage, and verifies that the proposed OWTS, which may include an alternative OWTS with supplemental treatment and/or an alternative dispersal system, will sufficiently treat the wastewater so that it does not exceed that determined value
- b. Development shall be limited to onsite discharge of 40g Nitrogen per acre per day. Commercial or industrial wastewater discharges shall be evaluated as high strength waste. The qualified professional shall determine the wastewater characteristics of the commercial/industrial use and specify the maximum volume of daily onsite wastewater dispersal that meets this standard.

H. All new and replacement dispersal systems proposed with the boundary of the Nitrogen Management Area, as indicated by Figure 3 of the Carmel Highlands Onsite Wastewater Management Plan (Board of Supervisors Resolution No. 09-446), shall incorporate supplemental treatment including nitrogen reduction that is designed to meet the standards specified by Table 11, Effluent Constituent Limitations for Supplemental Treatment Systems.

- I. 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 acceptable percolation test results and vertical separation requirements to groundwater, consolidated bedrock or another impervious layer are met.
- J. No OWTS permit shall be approved for an OWTS in an area subject to ten year floods.
- K. No OWTS permit shall be approved in any area where continued onsite domestic wastewater discharge would constitute a public health hazard, or where there is an existing or threatened condition of water pollution, contamination or nuisance.
- L. 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 which is the site of the building or structure served by such system unless the EHB, for good cause allows it.
- M. Where limitations of the land, and lack of limitations on the proposed usage, could create public health hazards, the EHB retains the authority to assign special conditions to the OWTS permit or to require an ongoing operation permit to mitigate this concern. These conditions shall include but not be limited to conditions relating to system design, installation, operation, maintenance, and monitoring.
- N. A copy of the approved OWTS installation permit shall be on site throughout the duration of installation or replacement. Where work for which a permit is required by this Chapter commences prior to obtaining a permit, the fee shall be doubled, but the payment of such double fee shall not relieve any person from complying fully with the requirements of this Chapter in the execution of the work, nor from any other penalty prescribed by this Chapter.
- O. The qualified installer shall notify the EHB at least 48 hours before moving equipment on site to commence OWTS installation, exclusive of Saturdays, Sundays and holidays. The OWTS permit number and the address of the subject property shall be provided to the EHB.
- P. All work for which a permit is required by this Chapter shall be subject to inspection by the EHB, and a final inspection of a completed system must be obtained before it is covered with earth. EHB reserves the right to waive a final inspection, in which case the qualified installer shall provide confirmation that the system has been installed per plans approved by the EHB, or if installation deviated from approved plans, a comprehensive as-built drawing shall be provided to EHB. No OWTS shall be used until EHB has granted final approval of the installation.
  - 1. It is the duty of the permittee or his or her agent to call for such final inspection, and any other inspections which the EHB may have required in the permit, and to be sure that the work is ready for such inspection. Such call for inspection shall be made not less than 24 hours in advance of any required inspection, exclusive of Saturdays, Sundays and holidays.

2. A penalty may be assessed against the qualified installer when additional inspections are necessary because the OWTS was not ready during a requested inspection. The penalty will be based on staff hours to complete a subsequent inspection(s), invoiced at the current hourly rate as prescribed in Chapter 1.40 (Monterey County Fee Resolution) of the Monterey County Code.
  3. EHB shall provide evidence of final approval of the installation in writing, on the permit or otherwise. Evidence of EHB approval shall be withheld until satisfactory documentation is available to confirm the installation conforms with the approved, or that the qualified designer has authorized any deviation from approved plans, and until all accrued charges have been paid.
- Q. No OWTS installation permit shall be approved until the construction permit for the associated structure that will generate domestic wastewater has been issued by the appropriate governmental agencies.
- R. No OWTS permit shall be approved when the total discharge exceeds 10,000 gallons per day, unless a written approval from the California Regional Water Quality Control Board is first obtained.
- S. 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 900 mg/L BOD and there is a properly sized and functioning oil/grease interceptor (a.k.a. grease trap).
- T. No OWTS permit shall be approved where the wastewater discharge exceeds 40 grams per day of total nitrogen per acre, unless a supplemental OWTS including nitrogen reduction is incorporated into the system in accordance with the standards of this Chapter.
- U. An OWTS permit application shall expire 1 year from the date the OWTS application fee was received when a valid OWTS permit has not been issued. The property owner or qualified professional may request in writing that an OWTS application be extended for up to 1 year, to be considered for approval at the discretion of the EHB.
- V. Every OWTS permit approved by the EHB shall expire and become null and void if any work authorized thereby is not installed or completed within 1 year from the date of approval. Upon expiration, no further work shall be done unless and until a new permit has been obtained or the EHB has authorized an extension.
1. A qualified professional or property owner may apply to extend an approved OWTS permit for a period of 1 year. The request for permit extension shall be made in writing and submitted prior to permit expiration. The extension request is subject to the fee prescribed in Chapter 1.40 (Monterey County Fee Resolution) of the Monterey County Code.
    1. The extension shall be approved when additional OWTS feasibility analysis and/or an updated design is not required for the system to conform with this Chapter.

2. A new and separate OWTS application shall be required when the extension request cannot be approved, subject to the standards of this Chapter and payment of applicable permit application fees, minus the fee paid for the extension request.
  2. An OWTS permit approved concurrently with a construction permit shall not expire or require extension provided the corresponding construction permit remains valid with the County of Monterey Resource Management Agency in an active, issued status.
- W. The EHB may, in writing, suspend or revoke a permit approved pursuant to this Chapter whenever the permit has been approved in error, or on the basis of incorrect information supplied, or in violation of this Chapter or any other State or Federal law or County Code.
- X. Any changes to the structures, including changes in floor plan, footprint or location made after the OWTS permit has been approved without prior notification to and approval of EHB will void the OWTS permit.

15.20.065 – Licensing Requirements and Annual Registration for Qualified Professionals. OWTS must be sited, designed and constructed properly. Once an OWTS is placed into operation, regular inspections and maintenance are necessary to keep the system functioning as designed and to prolong its useful life. Design, installation, maintenance, repair and replacement of an OWTS shall only be conducted by a qualified professional or service provider registered with the EHB.

- A. Qualified Professionals. Specific qualifications and licenses are required to design, construct, maintain, repair and/or replace an OWTS in Monterey County. This section describes the various types of qualified professionals, the duties they are authorized to perform and the professional qualifications or registrations they must possess.
1. Qualified consultants conduct site evaluations, soil investigations and percolation testing. A qualified consultant shall be a registered California professional, including Civil Engineer, Professional Geologist, or Certified Engineering Geologist or another qualified professional as approved by the EHB.
  2. Qualified designers design an OWTS using information prepared by a qualified designer. A qualified designer shall be a California Registered Civil Engineer, Registered Environmental Health Specialist, or another qualified professional as approved by the EHB.
  3. 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. An owner/builder may abandon or demolish an OWTS septic tank under permit from the EHB without a contractor's license.

4. Qualified service providers operate, maintain and service alternative OWTS. A qualified service provider shall be an individual or company 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.
- B. Application for the Qualified Professional Registration required by section 15.20.065 shall be made in writing and on a form prescribed by the EHB; signed by the holder of said professional license or certification; accompanied by a fee set forth in the Monterey County Fee Resolution; and include such information as the EHB may reasonably require to secure the purposes of this Chapter.
1. Any person applying for a Qualified Professional Registration shall submit the following information to the Director as part of the permit application:
    - a. Proof of a valid professional license or certificate.
    - b. The name and contact information of a person or persons who shall act as the principal contact or intermediary with the EHB.
    - c. e Monterey County Fee Resolution, no part of which shall be refundable. All fees shall be paid in the amount stated in the Monterey County Fee Resolution at the time of actual payment of the fee.
    - d. If the Director has determined that the applicant has a valid, unexpired professional license or certification, has paid the application fee, and has supplied all other required information, the EHB shall issue the Qualified Professional Registration, provided, however, that the EHB shall not issue a Qualified Professional Registration to any applicant whose Qualified Professional Registration is in a revoked or suspended status pursuant to this Chapter.
    - e. The Registered Qualified Professional is responsible for knowing and complying with all requirements of this Chapter and the Monterey County LAMP. The Registered Qualified Professional is also responsible for making sure that all his or her employees also know and comply with all requirements of this Chapter and the Monterey County LAMP.
    - f. The Qualified Professional Registration shall expire on the thirtieth (30<sup>th</sup>) of June after it was issued. A Registered Qualified Professional may renew his or her Qualified Professional Registration by supplying proof of a valid, unexpired professional license or certification, paying the annual registration fee in the amount set forth in the Monterey County Fee resolution, and updating any information previously supplied to the EHB to obtain the Qualified Professional Registration. An individual or entity is not eligible to renew their Qualified Professional Registration for one year after revocation of a Qualified Professional Registration.

- g. A Registered Qualified Professional must give the EHB immediate written notice of any suspension or revocation of his/her/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.
- h. A Registered Qualified Professional must give the EHB written notice within fifteen (15) days of any changes in contact information.

The EHB shall maintain a current list of names and business addresses of all Registered Qualified Professionals and of all Registered Qualified Professionals whose registration has been suspended or revoked.

### C. Enforcement of Qualified Professional Registration.

#### 1. Minor violation:

- a. Violations of this Chapter or any regulation, permit standard, or order issued or adopted pursuant to this Chapter, that does not pose a significant hazard to the public health, safety, and welfare of the people of this County or to the environment are considered minor. A significant hazard has a high likelihood to cause harm to people or the environment.
- b. If the EHB determines that the Registered Qualified Professional has committed a minor violation, the EHB shall issue a warning letter that describes the nature of the violation, including a reference to the statutory provision, standard, order or regulation alleged to have been violated. The warning letter shall also direct the Registered Qualified Professional to perform any appropriate and reasonable corrective actions to the violation. The warning letter shall be served upon the Registered Qualified Professional personally or by certified mail.
- c. If the EHB determines that a Registered Qualified Professional has committed three (3) minor violations within a twelve (12) month period, the EHB shall issue a notice of intent to suspend or revoke the Qualified Professional Registration. The notice of intent shall be issued pursuant to Subsection 3 below.
- d. If a Registered Qualified Professional demonstrates a warning letter was issued in error, the EHB shall revoke the warning letter.

#### 2. Major Violation:

- a. Violations of this Chapter or any regulation, permit standard, or order issued or adopted pursuant to this Chapter, that poses a significant hazard to the public health, safety, and welfare of the people of this County or to the environment are considered major. A significant hazard has a high likelihood to cause harm to people or the environment. Submittal of a false statement of representation on any application, record, or report maintained or submitted for purposes of compliance with this Chapter, either orally or in

writing, to the EHB, which Registered Qualified Profession knows or has reason to know is false may also be considered a major violation

- b. If the EHB determines that a Registered Qualified Professional has committed a major violation, the EHB shall issue a notice of intent to suspend or revoke the Qualified Professional Registration. The notice of intent shall be issued pursuant to Subsection 3 below.
3. Revocation and Suspension of Qualified Professional Registration.
    - a. The EHB may, following the procedures set for the below, suspend or revoke any Qualified Professional Registration issued pursuant to this Chapter. Prior to suspending or revoking a Qualified Professional Registration, the EHB shall:
      - i. 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 be served upon the Registered Qualified Professional personally or by certified mail.
      - ii. Conduct a hearing before the EHB.
        - (1) The determination of the EHB after the hearing may include revocation of the Qualified Professional Registration, suspension of the Qualified Professional Registration for a fixed period of time, or such other action as the EHB determines is appropriate.
        - (2) The EHB may temporarily suspend any Qualified Professional Registration issued pursuant to this Chapter prior to any hearing when the action is necessary to prevent an imminent or substantial danger to health. The EHB shall notify the Registered Qualified Professional of the temporary suspension and the effective date thereof and, at the same time, notify the Registered Qualified Professional that a hearing has been scheduled. The hearing shall be held as soon as possible, but not later than fifteen (15) days after the effective date of the temporary suspension. The temporary suspension shall remain in effect until the hearing is completed and the EHB has made a final written determination. The determination of the EHB may include reinstatement of the Qualified Professional Registration, revocation of the Qualified Professional Registration, suspension of the Qualified Professional Registration for a fixed period of time, or such other action as the EHB determines is appropriate.
        - (3) A Registered Qualified Professional may appeal the suspension or revocation of his/her/their Qualified Professional Registration.

4. Reimbursement of costs

- a. Each Registered Qualified Professional shall reimburse the Department for actual costs incurred by the Department for any enforcement activities related to that Qualified Professional’s Registration in accordance to Monterey County Code Section 1.20.090 including but not limited to preparing and issuing a notice of violation. The Department shall not be entitled to reimbursement of costs pursuant to this Section if the notice of violation is subsequently found to be without merit.
- b. Reimbursement of costs incurred by the Department pursuant to this Section shall be based on hourly rate established in the Monterey County Fee Resolution.

15.20.070 - Standards and specifications for New, Replacement and Expansion OWTS

- A. Location of OWTS. The design and type of system permitted shall be determined on a basis of location, soil characteristics and topography, and groundwater level, and shall be designed to receive all sanitary sewage from the property. The EHB may require such inspections and tests of the site of proposed installation, and the materials proposed to be used, as in his or her judgment are necessary to safeguard health and sanitation. Any EHB-approved inspection(s) and / or test(s) shall be made in the manner directed by him or her and at the expense of the applicant.
  - 1. No OWTS, or part thereof, shall be located at any point having less than the minimum distances indicated in Tables 2 and 3, unless for good cause, a variance therefrom is allowed by the Director of the EHB or his/her designee.

**Table 2 – Minimum Horizontal Setback Distances for OWTS**

Setback Element		Septic Tank (feet)	Dispersal Field (feet)
1. Wells: Potable, Irrigation, Monitoring, Cathodic Protection		100	100 <sup>a</sup>
2. Wells: Geothermal		50	50
3. Domestic Water Supplies (that do not serve a public water system)		100	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, including disinfection, has been incorporated	100 <sup>d</sup>	150
5. Public Water Systems’ Surface Water Intake			

<b>Table 2 – Minimum Horizontal Setback Distances for OWTS (cont'd)</b>		<b>Septic Tank (feet)</b>	<b>Dispersal Field (feet)</b>
<b>Setback Element</b>			
	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	e	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	<u>10</u>	<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

<b>Table 2 – Minimum Horizontal Setback Distances for OWTS (cont'd)</b>		<b>Septic Tank (feet)</b>	<b>Dispersal Field (feet)</b>
<b>Setback Element</b>			
<b>17. In ground Swimming Pools/Spas</b>			
	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
<b>18. Unstable Land Mass or Areas Subject to Landslides</b>		100 <sup>c</sup>	100 <sup>c</sup>

<sup>a</sup> The required setback distance for 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 more than 50 feet, measured from the distribution pipe.

<sup>c</sup> This distance may be reduced if recommended by a Geotechnical Report.

<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.

2. Where a line carrying potable water must cross a disposal field the line shall be at least one foot above the top of the disposal field, and no joint in the pipeline shall be closer than eight feet to the field disposal line.
3. Any OWTS proposed adjacent to 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:
  - a. No conventional OWTS, or part thereof, shall be located at any point having less than a minimum distance of 100 feet.
  - b. Wastewater effluent shall not be piped across or under the watercourse unless it has first been treated to the meet the standards specified by Table 11, Effluent Constituent Limitations for Supplemental Treatment Systems .
  - c. When a conventional OWTS dispersal system is proposed to be located 100 feet or more, but less than 150 feet away, from a watercourse with year round flow or that has been designated as a beneficial use for domestic water supply, percolation testing shall be 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 5 minutes per inch. Baseline sampling and ongoing monitoring of the watercourse shall be completed in accordance with Section (Water Quality) of this Chapter and included as a condition of the Alternative OWTS operating permit.

- d. The qualified professional make a finding that the installation and ongoing use of the OWTS will not cause contamination of the watercourse to a level that it would will no longer be beneficial for use as a domestic water supply. The Qualified Professional or EHB may determine it is necessary to have a nitrate-contaminant study completed, which includes the following elements:
  - i. Sampling of the waterway must be done to establish existing levels of total coliform, fecal coliform, enterococci bacteria, nitrates, and Methylene Blue Active Substances (MBAS). Appropriate samples must be taken upstream, in front of, and downstream of the development. The location and number of samples must be reviewed and approved by the EHB.
  - ii. The fate of the contaminants (bacteria, viruses, nitrate, MBAS) must be examined in relation to the conditions of the on-site and surrounding area of the development. Those conditions to be considered are:
    - (1) Physical such as type of soils, percolation rates, absorption, adsorption etc.
    - (2) Biological such as plant uptake etc.
    - (3) Microbiological.
    - (4) Any other conditions that may affect the fate of the contaminates.
    - (5) A nitrate study must examine the watershed area of the development. The study must examine nitrate impact of the existing development plus the proposed development.
- 4. The bottom of a conventional dispersal field shall keep a minimum vertical distance of 3 feet from bedrock or other impervious layer or material.
  - a. When a dispersal system is proposed to be situated 50 feet or closer to a cut bank or downhill slopes that exceeds 30% slope, or when the dispersal system is proposed to be installed on a slopes that exceeds 30%, a minimum distance of 5 vertical feet from bedrock or other impervious layer or material shall be demonstrated. 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 mound below ground or surface.
- 5. The bottom of a dispersal field shall conform with the minimum vertical separation distances specified by Table 3 and groundwater, including perched groundwater, sheetwater and seasonally high groundwater.
  - a. Subsurface drainage flows, or sheetwater, may be intercepted by a curtain drain and diverted around the dispersal system provided the following conditions exist:

- i. Natural ground slope is greater than or equal to 5 percent.
- ii. Site investigations show groundwater to be perched on a clearly definable layer of bedrock, hardpan or impervious soil.
- iii. Curtain drains shall be designed by a qualified engineer or geologist with demonstrated experience in design of subsurface drainage diversion systems.

**Table 3 - Minimum Vertical Separation from Bottom of Dispersal Field to Groundwater<sup>1,2</sup>**

Percolation rate, min/in	Conventional OWTS	Alternative OWTS with Supplemental Treatment		
		Non-Pressure Distribution without Disinfection	Pressurized Distribution without Disinfection	With Disinfection
Percolation Rate ≤1	Not authorized without Supplemental Treatment	5 (five) feet	3 (three) feet	2 (two) feet
1 < Percolation Rate ≤ 5	20 (twenty) feet			
5 < Percolation Rate ≤ 30	8 (eight) feet			
30 < Percolation Rate ≤ 90	5 (five) feet			
Percolation Rate >90	Not authorized without Supplemental Treatment			

<sup>1</sup> Includes useable groundwater and perched groundwater and seasonally high groundwater.

<sup>2</sup> In all cases where the setback for Conventional OWTS cannot be met (or has not been demonstrated to the satisfaction of EHB), a permanent monitoring well shall be required, and will be subject to all permit and construction requirements specified by Chapter 15.08 of Monterey County Code.

B. Graywater Systems. Installation of new graywater systems must conform with the latest edition of the California Plumbing Code, regarding design criteria and installation. A graywater system permit must be obtained from EHB unless it meets the definition of a clothes washer system, as described by the California Plumbing Code.

C. Soil Evaluation and Characteristics. A comprehensive site evaluation shall be summarized in an OWTS Feasibility Report prepared by a qualified professional that describes the soil profile and absorptive characteristics of soil, indicates the presence of groundwater or bedrock, evaluates topography and confirms horizontal setback requirements, as each of these subjects pertain to the design aspects of the OWTS dispersal system. All borings, excavations and/or percolation test locations shall be reasonably accurate, field verified or measured, and plotted on the submitted site plan which shall be to scale.

- 1. New subdivisions shall be required to have soil profile analysis, percolation testing to assess absorptive characteristics of soil and a deep monitoring

boring or excavation completed by a qualified consultant for each proposed lot, to the extent that the qualified designer has sufficient information to identify the areas to accommodate the primary, secondary and tertiary dispersal systems and based on a daily design volume of 450 gallons per day.

- a. A minimum of one deep monitoring boring or excavation is required per lot to demonstrate that the minimum vertical distance to groundwater and an imperious layer can be met.
  - b. Soil profile analysis and percolation testing 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.
2. New, replacement or expansion OWTS on existing lots of record shall be required to have soil profile analysis, assessment of absorptive characteristics of soil and a deep monitoring boring or excavation completed by a qualified consultant, to the extent that the qualified designer has sufficient information to identify the areas to accommodate the primary and secondary dispersal systems, as well as the tertiary dispersal system when required by Section 15.20.060.E.
- a. A minimum of one deep monitoring boring or excavation is required to demonstrate that the minimum vertical distance to groundwater and an imperious layer can be met.
    - (1) When the deep boring 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 EHB.
  - b. Percolation testing is required for New OWTS to assess absorptive characteristics of soil and is optional for Replacement or Expansion OWTS.
    - (1) When percolation testing of a specific horizon (depth) varies by more than 30 minutes per inch from other borings in the proposed dispersal area, an excavation shall also be completed.
    - (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.

#### D. Soil Profile Analysis

1. A soil profile analysis shall be completed by the qualified professional to be included in an OWTS feasibility report. The boring or excavation shall extend at least 3' beyond the bottom of the proposed dispersal system. The following observations shall be made and recorded by a qualified professional:
  - a. Thickness, depth and texture of soil layers encountered
  - b. Depth to bedrock, hardpan or impervious layer
  - c. Depth to groundwater – as determined by direct observation and/or the highest extent of soil mottling.
  - d. Evidence of soil mottling or gleying
  - e. Other conditions affecting the potential use of the soil for sewage disposal, including but not limited to the evidence of roots, fissures, and dampness.
- E. Assessment of Absorptive Characteristics. The depth and type of unsaturated soil below the dispersal system shall be established by a qualified consultant using either percolation testing or direct inspection.
  2. Percolation tests. Percolation tests are performed with water, not sewage, are therefore taken as indicators only of the potential of any area for subsurface wastewater dispersal.
    - a. Percolation tests must be performed in accordance with EHB approved methods.
      - (1) Testing shall be conducted at the depth proposed for subsurface dispersal, evaluating only the bottom 12 inches of the boring.
      - (2) Percolation test borings shall be pre-soaked the day prior to testing, except during wet weather period when the presoak may occur on the same day as testing.
      - (3) A percolation rate shall be measured over a minimum time period of 4 hours unless for good cause the EHB waives this requirement.
      - (4) The qualified designer shall use the final, stabilized percolation rate obtained for each boring to determine the soil application rate.
      - (5) A statistically valid number of test holes must be percolated in any area proposed for onsite dispersal.
      - (6) When percolation testing results in a proposed dispersal area very by more than 30 minute per inch for a given depth, an excavation shall be completed within the proposed dispersal

area and evaluated by direct inspection to determine the soil texture, soil structure shape and grade.

- b. The EHB shall be afforded the opportunity to review a workplan and witness the percolation test hole site preparation (borings) and testing when the proposed subsurface disposal or OWTS will be associated with any of the following:
- A commercial operation or employee housing facility that will generate more than 1,000 gallons of domestic wastewater each daily; or
  - A new or expanded dispersal system for a wastewater treatment facility; or
  - A proposed subdivision of land.

Prior to moving on site, the qualified professional shall submit a workplan to EHB, subject to applicable cost recovery fees when an associated land use permit or onsite wastewater permit application has not been received by the EHB. The EHB will determine the level of oversight to be provided during the testing. The workplan must include:

- (1) A thorough project description and estimate of wastewater generation based on Monterey County Code, Chapter 15.20.
  - (2) A site plan that delineates property lines, easements, wells (all types), bodies of water, watercourses, drainage ways, existing and proposed structures, trees, downhill embankments and slopes greater than 25%.
  - (3) The location, depth, type of excavation (boring, pit, etc.) and type of testing (groundwater observation hole, percolation test hole, soil profile pit, etc.) proposed throughout the site, that meet the requirements on Monterey County Code, Chapter 15.20.
- c. All percolation test sites must be flagged. The lot and/or the boring numbers shall be noted in indelible ink on the percolation pipe. There shall be sufficient pipe extending above grade or separate staking to clearly locate each percolation test site.
- d. When drilling, soil samples from the hole shall be taken and arranged according to depth adjacent to the test holes. Scattering or commingling of soils shall be prevented. Containment of soil samples in plastic bags is suggested.
- e. Percolation rates of more than 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.

- f. Where percolation rates are marginal but not prohibitive, total lot size, depth to groundwater, topography, well site location, streams, or other such constraints may make the property unsuitable for development. The EHB shall not approve such marginal percolation rates when a consideration of the above criteria indicates that ground water, surface water or public health will be put at risk.
3. Direct Inspection. A trench or excavation shall be made to the depth of the bottom of the proposed dispersal field by a qualified professional to determine the soil texture, soil structure shape and grade.
    - a. The minimum depth of the excavation will vary, dependent upon the soil minimum setback to groundwater, but shall extend at least 8 feet beyond the proposed dispersal field depth. The qualified professional shall make a finding that at least 3' of soil is present above bedrock or an impervious layer.
4. Soil Application Rate. The qualified professional shall determine the appropriate soil application rate for each dispersal system that considers the soil profile, percolation testing and/or excavation (i.e. direct inspection) and using Tables 4 and/or 5 as appropriate.

**Table 4 - Soil Application Rate, 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>
< 1	1.2 (Requires Alternative OWTS with Supplemental Treatment)
1 – 5	1.2
6 – 10	0.8
11 – 17	0.7
18 – 24	0.6
25 – 33	0.5
34 – 42	0.4
43 – 51	0.3
52 – 60	0.2
61 – 66	0.18
67 – 72	0.16
73 – 78	0.14
79 – 84	0.12
85 – 90	0.1
> 90 – 120 <sup>1</sup>	0.1 (Requires Alternative OWTS with Supplemental Treatment)

<sup>1</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 permits shall be issued when the percolation rate is slower than 120 MPI.

**Table 5 - Soil Application Rate, Determined from Soil Texture, Structure and Grade**  
 (Source: OWTS Policy Tier 1 Table 4, based on US EPA Onsite Wastewater Treatment Systems Manual, February 2002)

<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 Separation (feet)</b>
e	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

1. Groundwater Monitoring. The minimum depth of a groundwater monitoring boring or excavation is dependent on the absorptive characteristics of the soil.
  - a. Since soil moisture and groundwater do not always immediately flow into a test boring, EHB may require a minimum of 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 24 hours later. All holes shall be adequately covered to preclude any safety hazard.
  - b. During periods of below average rainfall, or after periods of drought where there has not been sufficient groundwater recharge, the absence of groundwater in test borings in areas where groundwater is suspect may not mean that approval to issue a septic tank permit can be granted. In this case, the qualified professional shall supplement the field investigation with reference to past groundwater and hydrogeologic studies, and review of historic groundwater levels. The qualified professional shall recommend the highest probable groundwater elevation based on review of this historic information, for review by the EHB. The EHB may either approve the recommendation or require that groundwater monitoring occur during the wet weather conditions.
  - c. 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.
  - d. It is recommended that all test borings that encounter groundwater be converted to observation wells so the groundwater conditions can be monitored over time.
    - (1) Such conversion of soil borings to observation well will be required as a permit condition for alternative OWTS necessary to overcome an insufficient vertical separation to groundwater.
  - e. The minimum vertical separation between the bottom of a conventional OWTS dispersal field and seasonal high groundwater shall be determined by Table 5 or 6.

**Table 6 - Minimum Vertical Separation to Groundwater for Conventional OWTS Dispersal Systems**

<b>Percolation Rate</b>	<b>Minimum Vertical Separation to Groundwater</b>
Percolation Rate $\leq$ 1 MPI	Not Authorized without Alternative OWTS with Supplemental Treatment
1 MPI < Percolation Rate < 5 MPI	Twenty (20) feet
5 MPI < Percolation Rate $\leq$ 30 MPI	Eight (8) feet
30 MPI < Percolation Rate $\leq$ 90 MPI	Five (5) feet
Percolation Rate > 90MPI	Not Authorized without Alternative OWTS with Supplemental Treatment

- f. Community dispersal systems shall demonstrate that at least 15 feet of vertical separation will exist between the bottom of the proposed dispersal system and groundwater, regardless of the minimum separation specified in Table 5 or 6.
  - g. The qualified professional and the property owner maintain full responsibility for protecting the public from any hazards related to the test borings or excavations.
2. A report summarizing the percolation test and/or direct inspection results and groundwater monitoring results shall be submitted to the EHB. Such report shall include a scaled map showing property lines, any adjacent wells, recorded well lots, springs, water courses, or drainage channels within 100 feet of the property lines, reservoirs within 200 feet of property lines, as well as within property lines. The scaled map shall also indicate the locations of existing and proposed structures on the property and all easements on the property. The Assessor's Parcel Number shall be placed on both the map and the reports. The report shall contain the following information:
- i. Assessor's Parcel Number;
  - ii. Associated Resource Management Agency – Planning or Building Project Number;
  - iii. Date or period of testing;
  - iv. Soil logs and when applicable, percolation test results
  - v. Person performing test and license or registration number; and
  - vi. Conclusions and Recommendations: This Section shall specifically state whether the lot(s) meet(s) the standards found in this Chapter and the Monterey County LAMP. Specific recommendations shall

be made about the location and design of the OWTS(s), including Soil Application Rate

3. Where seasonally high groundwater, sheetwater, and/or perched water is suspected, 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 EHB approved methods.
  - h. Because 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 EHB.

F. Septic Tank Sizing and Estimated Sewage Flows.

1. The liquid capacity of all septic tanks for single family dwellings and accessory dwelling units shall conform to Table 7.
2. The liquid capacity of septic tanks proposed to serve structures that will include residential occupancies, including multi-family dwellings, shall be at least 3 times the maximum anticipated daily volume of wastewater. The liquid capacity of septic tanks for commercial, industrial and institutional buildings shall be at least two times the maximum anticipated daily volume of wastewater as determined empirically or from standards of accepted good practice recognized by State and Federal national authorities. For the purposes of this Chapter, Table 8 prescribes estimated volumes of daily wastewater generation for multi-family, commercial, industrial uses and shall be used to estimate wastewater generation volumes for those types of uses. All uses shall be designed in consideration of maximum wastewater generation per day (not average).

<b>Table 7 - Minimum Capacity of Septic Tanks for Residential Occupancies</b>	
3 bedrooms or less:	1,500 gallons
4 – 5 bedrooms:	2,000 gallons
6 – 7 bedrooms:	2,500 gallons
Each additional bedroom	Add 250 gallons
With garbage grinder	Add 500 gallons

<b>Table 8 – Daily Wastewater Generation Volumes</b>	
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
Employee Housing	75
With laundry in the dwelling unit	75
With centralized laundry on site	- 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

3. Materials and Installation. No permit shall be approved for a new, replacement or expansion septic tank, supplemental treatment tank or pump chamber unless, in addition to other requirements of this Chapter, it complies with all of the following provisions:

- i. Prior to installation, the EHB must approve any septic tank or pump chamber that is proposed to be used in Monterey County. In order to receive approval, the manufacturer, distributor or other applicant must submit the following: A letter requesting approval for the size of septic tanks or other materials.
  - ii. A certificate of approval from the International Association of Plumbing and Mechanical Officials (IAPMO).
  - iii. A statement that the septic tank conforms with minimum design and installation standards specified by this Section, including but not limited to water tightness.
  - iv. Plans of the septic tank(s) for which approvals are being requested.
  - v. Installation instructions.
  - vi. A review fee pursuant to Chapter 1.40 of the Monterey County Code (Monterey County Fee Resolution).
- a. Tanks shall be constructed of materials approved by the EHB in accordance with the following standards:
- i. Tanks shall be watertight and constructed of durable, corrosion resistant material, such as reinforced concrete, fiberglass or polyethylene plastic.
  - ii. Tanks must conform to the standards for septic tanks set forth by the International Association of Plumbing and Mechanical Officials (“IAPMO”) or American Society for Testing and Materials (“ASTM”), including but not limited to minimum requirements for hydrostatic water pressure and earth load. Homemade tanks shall not be permitted.
  - iii. Tanks shall be structurally designed to withstand all anticipated earth or other loads, and shall be installed level.
  - iv. Tank design must allow access for inspection and cleaning.

- v. Tanks shall be capable of being pumped out completely without the need to backfill with water to maintain structural integrity.
  - vi. Septic tanks shall have two compartments, separated by a baffle and including an air vent between the tank compartments.
  - vii. Septic tanks must be designed to remove nearly 100 percent of settleable solids and should provide a high degree of anaerobic decomposition of colloidal and soluble organic solids.
- b. An inline effluent filter with 1/16" filtration shall be installed in the outlet tee of any septic tank associated with a new, replacement of expansion OWTS.
  - c. Tanks shall be installed in accordance with manufacturer's recommendations. Unless otherwise specified by manufacturer's recommendations, soil around tanks shall be hard-compacted.
  - d. All new tanks shall be certified to be watertight in accordance with EHB approved methods prior to final approval of OWTS permit.
  - e. Tanks shall be located on a site so that the lids will remain accessible for pumping.
  - f. When a tank is proposed to be installed beneath an area that will be subject to vehicular traffic, the tank must be either rated to withstand such conditions or the installation shall be engineered to support the additional weight.
  - g. All connections from buildings to a tank, including the grade of the pipe from the structure to the tank, shall be made in accordance with the most recent edition of the California Plumbing Code as may be amended from time to time, and the Monterey County Code, Title 18, Buildings and Construction Ordinance.
  - h. A two-way sewer line cleanout, with riser to the surface, located two feet in front of the inlet end of the septic tank will be required on all OWTS installed unless manhole risers are otherwise provided for. The riser must extend at least six inches above the ground and be capped to be gas-tight unless another means of effectively locating the septic tank is approved by the EHB. A back-pressure relief valve rather than cap is recommended. The cleanouts shall be designed to:
    - i. Prevent the backup of sewage into the residence should there be a malfunction of the system.
    - ii. Provide easy access clean out of the sewer line both in the direction of the house and the direction of the tank.
    - iii. Provide a simple, effective means of locating the septic tank for periodic maintenance.
4. Manhole Risers. Septic tanks should be installed no deeper than six inches below finished grade. Watertight, manhole risers of a size sufficient for removal of the tank manhole covers shall be installed for each compartment of a septic tank or pump chamber whenever the following conditions exist:

- a. When a septic tank or pump chamber must be placed deeper than six inches below finished grade, then each compartment shall be fitted with watertight risers that extend to within six inches of finished grade.
  - b. When a septic tank or pump chamber 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 in areas subject to vehicular traffic.
  - c. All septic tanks and pump chambers serving multi-family dwellings, hotels, motels, or other commercial, industrial and institutional uses, shall be shall with watertight risers that extend to finished grade.
5. Pump Chambers. When a pump is necessary to convey untreated wastewater from a structure to a septic tank or supplemental treatment tank, or to convey effluent to a dispersal system, a pump chamber shall be required.
- a. Pump chambers shall meet the material and installation standards for tanks specified by this Section.
  - b. A pump shall not be installed in the outlet compartment of a septic tank and shall require a separate chamber (compartment).
    - i. Proprietary supplemental treatment units that have been designed and tested to meet performance standards with the pump incorporated within the unit are exempt from this requirement.
  - c. The capacity of a pump chamber shall be no less than 300 gallons and specified by the qualified professional so that the tank will have surge capacity equal to at least 100% of the estimated daily wastewater generation volume above the high water float level.
    - i. In areas subject to interruption of power, the pump chamber shall be sized so as to allow for a holding capacity equivalent to a minimum of three days flow or an emergency disposal field must be installed.
    - ii. When a pump chamber is specified as a standard component of a proprietary supplemental treatment unit, no minimum capacity requirement shall apply.
  - d. All pump chambers shall be equipped with an audible and visual alarm to alert when the high-water level in a tank is reached.
  - e. Any pump chamber preceding a septic tank (e.g. lift station, ejection basin) shall require a permit from the Resource Management Agency, Building Services, and shall meet the specifications of the California Plumbing Code, Section 710.3, Sewage Ejector and Pumps, as may be amended from time to time and the Monterey County Code, Title 18, Buildings and Construction Ordinance
    - i. Macerating (grinder) pumps shall not be allowed.

ii. When pumping of raw sewage cannot be avoided, the qualified professional shall incorporate additional design measures to mitigate negative effects, primarily surging and turbulence, on overall treatment system performance. Options that may be considered include but are not limited to:

- Pumping to gravity sewer some minimum distance upstream of the septic tank instead of directly into the septic tank.
- Install an inlet baffle in the septic tank to deflect the inlet discharge.
- Install more septic tank capacity or a surge tank prior to the septic tank.
- Install multiple septic tanks in series or compartmented septic tanks.

G. Conventional Dispersal Systems. No permit shall be approved for a new or expansion OWTS, or for the replacement of a dispersal system in an existing system, unless, in addition to the other requirements of this Chapter, it complies with all of the following provisions:

1. A dispersal system shall be installed in undisturbed earth. Installation in fill material shall not be permitted.
2. The infiltrative capacity of the dispersal shall not be less than the number of square feet produced by calculating the formula:

$$\text{Infiltrative Capacity} = \frac{\text{Estimated Wastewater Generation (in gallons, pursuant to Table 1 or 8)}}{\text{Soil Application Rate (gallons per square foot of dispersal system per day)}}$$

3. The infiltrative area of the sidewall and/or bottom of a dispersal system shall be limited to 4 square feet per linear foot.
  - a. When a qualified professional demonstrates that an existing lot of record is constrained by existing conditions, such as structures, steep slopes or trees, a replacement dispersal system may be eligible for up to 13 square feet of infiltrative area per linear foot of trench.
4. The infiltrative capacity of a dispersal system shall be calculated using sidewall area only.
  - a. When a trench is 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 may both be included as infiltrative surface.

5. The bottom of a dispersal trench shall be between 18 inches and 36 inches wide.
6. The depth of rock below the perforated distribution pipe (infiltrative depth) shall be at least 1 foot.
7. Total trench depth shall not exceed 10 feet unless a supplemental treatment system, including nitrogen reduction, has been incorporated into the OWTS.
8. Separation between 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 2 times the effective depth of the trench, whichever is greater.
  - a. An additional 1 foot of separation is required for each 5% increase in slope when the average slope of the dispersal system area of exceeds 30%.
  - b. For bed systems, at least 8 feet of separation shall exist between the primary, secondary, and when required by this Chapter, tertiary dispersal systems, measured sidewall to sidewall.
9. The excavation for conventional dispersal systems (rock-filled beds or trenches) shall be filled with clean, rock of an average diameter not less than one and one half inches nor more than two and one-half inches, added to a depth of two inches above the drain line. No rock with a high percentage of fines shall be used. Untreated building paper, or suitable substitute (e.g. filter fabric), shall be used to cover the rock, and there shall be a minimum backfill of one foot of earth over the building paper.
  - a. Gravel-less chambers and proprietary non-rock dispersal media products are eligible for use in Monterey County. Each product shall be approved by Monterey County prior to use in an OWTS installation. In order to receive approval, the manufacturer, distributor or other applicant must submit the following:
    - i. A letter requesting approval for the specific product or other material.
    - ii. A certificate of approval from the International Association of Plumbing and Mechanical Officials (IAPMO).
    - iii. Plans and specification sheets for the product or material for approvals are being requested.
    - iv. Installation instructions.
    - v. 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 such as 3<sup>rd</sup> party testing to support the claim.
    - vi. A review fee pursuant to Chapter 1.40 of the Monterey County Code (Monterey County Fee Resolution).

10. Dispersal system pipe shall be at least 3 inches in diameter and be made from Acrylonitrile-Butadiene-Styrene (ABS) 1,000-pound minimum crush, with National

Sanitation Foundation (NSF), American Society for Testing and Materials (ASTM), or equivalent approval.

11. Pipe in the dispersal system shall have a slope of not more than two inches per 100 feet and shall be carefully placed to ensure even distribution of effluent along the bed or trench.
12. Individual trench lines shall not be over 100 feet in length and shall be capped at the end.
13. Minimum cover over the trench pipe is 14 inches, consisting of 2 inches of rock/gravel and untreated building paper/straw and at least 12 inches of soil backfill.
  - a. Soil cover requirements must also conform to those allowed by the manufacturer of any gravel-less/chamber design.
14. Each individual trench in a dispersal system shall be constructed with a permanent riser 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 above the surface of the ground and be capped, or the riser may be terminated within 6" below grade provided a valve box is installed to allow permanent access to the riser.
15. The primary and secondary dispersal systems must be installed initially. A diversion device approved by the EHB shall be installed so that the dispersal fields can be used alternately. As required by Section 15.20.060.E, designated expansion area must be set aside and protected from all uses except future disposal field repair and replacement.
16. Tracer wire shall be laid along the length of the distribution pipe of all dispersal system. When a dispersal system incorporates sufficient risers and inspection ports to fully identify the location of the dispersal system the EHB may elect to waive this requirement.
17. If the dispersal field is to be installed in an area subject to vehicular traffic, site specific engineering will be required to assure that components of the septic 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.
18. New, expansion or replacement OWTS dispersal systems shall not be covered by an impermeable surface, such as paving, building foundation slabs, plastic sheeting or any other material that prevents oxygen transfer to the soil unless supplemental treatment is incorporated into the system to reduce total suspended solids ("TSS") and biological oxygen demand ("BOD") to the standards specified in Table 11, Effluent Constituent Limitations for Supplemental Treatment Systems Objectives.
  - a. The supplemental treatment system shall also include nitrogen reduction when minimum vertical separation to groundwater cannot be met or when the

EHB determines that the wastewater effluent has potential to contribute to nitrate contamination in groundwater.

- b. Pervious concrete, also called porous concrete, permeable concrete, no fines concrete and porous pavement, shall be allowed to cover a dispersal system.
19. When an existing dispersal system that is covered by an impermeable surface is proposed to accept additional wastewater, i.e. a residential building remodel or addition, or a commercial change of use, a qualified professional shall first verify the dispersal system is eligible to remain in use per Table 10.5 and then incorporate supplemental treatment into the OWTS to reduce total suspended solids and biological oxygen demand.
  - a. The supplemental treatment system shall also include nitrogen reduction when determined necessary to mitigate water-related horizontal and vertical groundwater setbacks in the wastewater.
20. 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, for good cause, the EHB determines one is required. The EHB may require that the applicant submit plans and specifications of such pad prepared and signed by a California licensed sanitary or civil engineer.
  - b. Distribution boxes and equalization devices shall be accessible. Therefore, they must either be placed at a shallow depth or constructed with watertight risers brought to or within 6 inches of finished grade.
21. In the event the distance between the structure and the septic tank or the septic tank and the dispersal system exceeds 50 feet, a two-way cleanout shall be installed, and one additional two-way cleanout shall be installed at a minimum of every 100 feet.
22. OWTS dispersal systems are prohibited in areas where the natural ground slope exceeds the value identified in Table 9 unless a qualified professional prepares a Slope Stability Analysis, including additional soil testing as determined necessary by this section that demonstrates the installation and ongoing use of the dispersal system(s) will not contribute to failure of the slope causing earth movement or landslide and will not adversely affect water resources. A variance request application shall be submitted for consideration by the Director.

<b>Table 9 - Maximum Allowable Ground Slope by Dispersal System Type</b>				
<b>Type of Dispersal System</b>	<b>≤ 20%</b>	<b>21-30%</b>	<b>31-40%<sup>1</sup></b>	<b>41-50%<sup>2</sup></b>
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%

23. Slope Stability Analysis. A Slope Stability Analysis shall be completed by a California registered geologist in conformance with California Division of Mines and Geology standards and be summarized in a written report. Formulas and methods used for slope stability analysis; all assumptions shall be stated. Enough information should be provided to allow the reviewer to repeat the calculations. Appropriate factors of safety shall be applied. Reference must be provided to support the slope analysis method.

- a. A Slope Stability Analysis, including additional soil testing prescribed by this section shall be required when a dispersal system is proposed to be:
  - i. installed in an area where the slope is 30 percent or less and the minimum setback to an impervious layer cannot be met; or
  - ii. installed in an area where the slope does not conform to Table 9; or
  - iii. located closer to a steep slope than the minimum setback specified by Table 9.
- b. Slope Stability Analysis shall be completed by a California registered geologist in conformance with California Division of Mines and Geology standards that includes the following:
  - i. 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; and
  - ii. Analysis of impact to slope stability due to effluent and irrigation water; and

- iii. Assessment of stability of structures on said parcel and any affected adjoining parcels; and
  - iv. Demonstrate that leachate will remain subsurface; and
  - v. A detailed grading map, including stabilization or mitigation plans during the development of the slope; and
  - vi. Cross sections of slopes, including stabilization or mitigation plans (generalized sections are not appropriate). These cross sections must represent the entire slope, width, height, and length;
  - vii. Results of soil sampling and percolation testing that provide data representative of the entire disposal area and demonstrate that conditions are uniform below the entire disposal area. The minimum testing requirements are:
    - Two soil profile borings that extend 5 feet beyond the proposed trench depth to confirm the minimum setback to an impervious layer can be met; and
    - Two percolation tests at a depth equal to the proposed trench depth; and
    - Two percolation tests five feet below the proposed trench depth; and
    - Percolation testing must show rates of 90 minutes per inch or less.
- c. A variance request application shall be submitted for consideration by the Director.
24. When required by Zoning Ordinance and/or local Area Plan or Land Use Plan, a Use Permit shall be obtained from the Monterey County Resource Management Agency – Planning Department prior to issuance of an OWTS installation permit.
25. When 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, as well as the field disposal line, shall have a slope of not more than two inches per one hundred (100) feet.
  - b. The trenches shall follow the surface contours of the ground to minimize variations in trench depth.
  - c. Soil backfill may be increased above the normal minimum of 14 inches, so as to accommodate the slope of the ground or other compelling reasons if approved by the EHB provided the total depth of the trench conforms with the requirements of this Chapter.
26. Drainage Improvements. Surface drainage flows from buildings, yards, drives, etc., shall and subsurface drainage waters 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 drainage flows, or

sheetwater, may be intercepted by a curtain drain and diverted around the dispersal system provided the following conditions exist:

- a. Natural ground slope is greater than or equal to 5 percent.
- b. Site investigations show groundwater to be perched on a clearly definable layer of bedrock, hardpan or impervious soil.

Curtain drains shall be designed by a qualified engineer or geologist with demonstrated experience in design of subsurface drainage diversion systems.

27. Certified Installation. Upon completion of OWTS installation, the qualified professional shall submit an as-built diagram that reflects any changes made in the specifications and EHB-approved plans during the installation process, and show the exact dimensions, geometry, and location of all elements of the OWTS.

- a. 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 as necessary in order to certify that it has been installed in substantial conformance with the EHB-approved plan.

H. Disposal Field Requirements for RV Parks, Wineries, Commercial Centers, Rest Stops or other Uses that Generate High-Strength Wastewater.

1. All non-residential uses that will generate high-strength wastewater and propose on-site waste dispersal must submit a Report of Waste Discharge and any required fee to the Central Coast Regional Water Quality Control Board. Supplemental treatment of high-strength wastewater may be required to meet nitrogen loading limitations and/or to conform with Waste Discharge Requirements. The following factors will be considered in determining the projects suitability:
  - a. Depth to groundwater.
  - b. Confined or unconfined nature of aquifer.
  - c. Size of watershed.
  - d. Impact of total area build out.
  - e. Percolation test results.
  - f. Ground slope.
  - g. Presence of water courses, lakes, reservoirs or ocean.
  - h. Sheet water problems.
  - i. Whether on private or public water supply and proximity of source; or whether there are numerous private wells or legal well lots in the proposed project area.
  - j. Possibility of project being served by a regional sewer system in the foreseeable future.
  - k. Location of all recorded easements.

- I. Capacities shall accommodate build-out population.
2. Community systems should be designed to accommodate the following items:
  - a. Design should consider contributions from infiltration throughout the collection system.
  - b. Septic tanks shall be pumped when sludge and scum levels are greater than one third of the depth of the first compartment.
  - c. Operation and maintenance shall be in accordance with accepted practice.
  - d. Maintenance manuals shall be provided to system users and maintenance personnel.
3. An application for OWTS dispersal system shall be submitted to the EHB in accordance with Section 15.20.060 of this Chapter. The EHB will review the OWTS dispersal system application in terms of its compliance with this Chapter and the Monterey County LAMP.
4. An operating permit may be required at the discretion of the EHB or upon recommendation by the Central Coast Water Board, where the type, size, location or other aspects of an OWTS installation warrant the additional level of oversight provided by an operating permit.
5. An OWTS installation permit shall only be granted by the EHB after the Central Coast Water Board has made a determination or taken an action that supports approval of the OWTS. Final approval of the OWTS dispersal system installation shall not be granted until all conditions of approval have been met.
6. Grease interceptors or other device, approved by the RMA Building Department, which removes grease from the waste stream, must be installed in food facilities where grease is generated. 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.
- I. Water Quality Monitoring. Water quality monitoring shall be required when the following conditions exist:
  1. When an insufficient horizontal setback to an onsite water well or watercourse as described in Section 15.20.070.A of this Chapter prompts the requirement for an alternative OWTS with supplemental treatment, or when the OWTS will be installed in soil formations that contain continuous cracks, channels or fractures and is located less than 250 feet to an onsite water well, the water well shall be monitored for quality over time.
    - a. As a condition of final approval of the OWTS, water quality analysis results shall be submitted to the EHB. Ongoing water quality monitoring shall be completed at least once every 5 years. An operating permit shall be required to ensure that monitoring of the onsite well is completed.
  2. When the presence of groundwater prompts the requirement for an alternative OWTS with supplemental treatment, a permanent groundwater monitoring well

shall be installed to evaluate groundwater level and quality over time. A separate monitoring well permit is required to be obtained from the EHB, subject to applicable fees. All standards for monitoring wells specified by MCC, Chapter 15.08 shall be met. The monitoring well shall be covered with an appropriate cap to prevent infiltration of surface water.

a. As a condition of final approval of the Alternative OWTS, the depth to groundwater in the monitoring well shall be measured and water quality analysis results shall be submitted to the EHB. Ongoing monitoring shall be completed by a qualified professional at least once every 2 years to identify the depth to the groundwater, as measured from the grounds' surface and to conduct water quality analysis.

3. When required by this section, water quality analysis shall be completed by a laboratory certified for drinking water analysis, and include the following constituents:

a. nitrogen series (nitrate, nitrite, ammonia and total kjeldahl nitrogen);

b. total dissolved solids; and

c. bacteriological constituents (total coliform, enterococcus and E. coli).

J. Non-conforming OWTS. When a new or replacement OWTS is approved by variance with less septic tank capacity or dispersal field area than is required by Section 15.20.070 of this Chapter, a deed restriction shall be recorded to the property on a form approved by the EHB and at the property owner's expense to notify the current and future property owners that the OWTS does not meet minimum OWTS standards for the structure it serves and that no building permit will be approved by EHB for a structure that would increase the estimated daily wastewater generation unless the OWTS is expanded or replaced to meet current standards.

#### 15.20.073 – Standards and specifications for Existing OWTS.

A. When an existing OWTS installed under permit from the EHB is discovered to encroach upon the horizontal setback requirements specified by Table 2 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. An existing OWTS shall be protected from new or expanded development of a parcel by ensuring that the minimum the horizontal setback requirements specified by Table 2 of this Chapter can be met for all new or expanded development.

1. When a building remodel or addition will encroach upon the minimum horizontal setback to an OWTS component, a variance shall be required and a civil engineer or other qualified professional shall first determine that the proposed structure will not negatively impact the OWTS component(s) and in the case of a dispersal system, that the hydraulic load of effluent will not negatively impact the proposed structure.

- C. As part of EHB review of a building remodel or building addition permit, a performance evaluation of an existing OWTS shall be completed by a Qualified Professional when required by Table 10, Performance Evaluation Requirements.
1. Any OWTS component that is deemed to be in unacceptable condition (failed) shall be repaired or replaced in accordance with the minimum standards set forth by Section 15.20.070 prior to final inspection of the building permit that prompted the requirement for a performance evaluation.
    - a. 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.

<b>Table 10 - Performance Evaluation Requirements</b>		
<b>Type of Permit Application</b>	<b>Is a performance evaluation required to be conducted by a qualified professional?</b>	
	<b>Tank</b>	<b>Dispersal System</b>
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 7, Minimum Capacity of Septic Tanks	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 the Volume of Estimated Wastewater Generation (Table 1) and Soil Application Rate (Tables 4 or 5)	Yes	Not applicable
Building remodel or addition, that proposes additional bedrooms (provided the minimum lot size requirements specified by Table 1 of this LAMP can be met) or that will increase wastewater generation	Yes	Yes
Building remodel or addition, that proposes to increase the habitable area of a structure by 500 square feet or more	Yes	Yes
Addition to, tenant improvement of, or change of use of a commercial/industrial structure that is estimated to generate 10% or more wastewater as compared to the current use	Yes	Yes

- D. Expansion of an existing OWTS means installation of a supplemental septic tank or installation of additional dispersal system area to increase the capacity of the existing system. Expansions shall be designed by a qualified professional to meet minimum standards set forth by Section 15.20.070 for new OWTS and must be protective of human health and the environment.
- E. When a building remodel or addition will increase the wastewater flow or strength as determined by County Code, the OWTS may need to be expanded so that the wastewater generation anticipated with the new construction can be received and treated reliably. Examples of changes that would indicate an increased flow to the system include the addition of a bedroom(s) or for commercial systems, increased occupancy and/or fixture units.
- F. For the purposes of this Section and Table 10.5, 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 10 feet 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 10 feet total depth, including but not limited to seepage pits.
1. Conforming dispersal systems shall be allowed to remain in use when a building addition or remodel, or a change of use in a commercial/industrial facility, will result in increased wastewater strength or volume.
  2. Non-conforming dispersal systems shall be allowed to remain in use when a building addition or remodel, or a change of use in a commercial/industrial facility, will not result in increased wastewater strength or volume.
  3. Non-conforming OWTS shall not be allowed to remain in use when a building addition or remodel, or a change of use in a commercial/industrial facility, will result in increased wastewater strength or volume, unless a supplemental treatment system that meets the effluent constituent limitations specified by Table 11 is incorporated into the OWTS.
- G. Existing, conforming dispersal systems and certain non-conforming dispersal systems as specified by Table 10.5 are eligible to have their dispersal capacity reassessed by reevaluating the soil application rate in accordance with Tables 4 and 5 to determine if the system can increase its daily design flow. A qualified professional may conduct soil analysis or percolation testing in the direct vicinity of the existing dispersal system, or consider information in a soil or percolation testing report, to determine if it is appropriate to reassess its capacity.
1. When the information necessary to reassess the capacity of the existing dispersal system is unavailable, the soil application rate shall remain the same as was applied during design of the original system, usually but not always 0.3 gallons of wastewater per square foot of dispersal system per day

2. When supplemental treatment, including nitrogen reduction, is incorporated into an existing OWTS, the estimated volume of daily wastewater generation may increase by up to 150 gallons without the requirement to expand the dispersal system capacity.

**Table 10.5 - Retention and Reassessment of Existing, Non-Conforming Dispersal Systems**

Does the Project Propose to Increase Wastewater Generation or Strength? Or Electively Increase Capacity?	Does the Dispersal System Meet Water-Related Horizontal Setbacks?	Does the Dispersal System Meet Vertical Groundwater Setbacks?	Can Existing, Non-Conforming OWTS Dispersal System be Retained?	Can the Existing Dispersal Capacity be Reassessed?
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 perched water or high seasonal groundwater, 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 12, Minimum Vertical Separation to Groundwater by Dispersal System Type.

<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 impacts.

15.20.075 – Alternative Onsite Wastewater Treatment Systems. Alternative OWTS are used to overcome site-specific constraints that limit the use of a conventional septic tank and dispersal system. Alternative OWTS may be utilized for new construction and in situations where replacement or expansion of the OWTS is necessary. However, Alternative OWTS are not to be used as the basis of approval for creation of new lots, i.e. subdivisions. A renewable operating permit shall be required for all Alternative OWTS. Systems that were installed prior to the date of approval of this section shall be notified by the EHB within 90 days of the effective date of this ordinance of the requirement to obtain an operating permit.

A. Use of Alternative OWTS.

1. Alternative OWTS may be permitted by the EHB for the replacement or expansion of any existing OWTS and for new construction on an existing lot of record where:
  - a. it is determined that sewage cannot be disposed in a sanitary manner by a conventional septic tank–dispersal field system; or
  - b. the EHB determines that an alternative system would provide equal or greater protection to public health and the environment than a conventional septic tank-dispersal field system.

Such alternative OWTS must comply with the specific requirements set forth in this section and as prescribed by the Monterey County LAMP.

2. Types and specific makes/models of alternative OWTS systems, materials and components shall be limited to those that have been approved by the EHB or the Central Coast Regional Water Quality Control Board.
3. All alternative OWTS shall be installed by a Qualified Installer. Where the installation includes a supplemental treatment unit, the contractor shall also possess any required manufacturer certifications, as applicable.

4. Notwithstanding any other provisions of this section, the EHB shall have the authority to deny and/or require modifications to any alternative OWTS proposal where, in his/her opinion, such proposal poses an unacceptable threat to public health and/or water quality.
- B. Alternative OWTS permit application and review requirements.
1. Application for an alternative OWTS permit shall be made in a manner consistent with Section 15.20.060 of the Chapter.
  2. Engineering plans for alternative OWTS shall be prepared and signed by a Qualified Designer who is knowledgeable and experienced in the field of onsite wastewater treatment and dispersal. The designer 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 designer shall be in addition to standard County inspection work carried out in accordance with Section 15.20.060 of this Chapter.
  3. Engineering plans will be reviewed by the EHB and, where warranted, the EHB may refer the plans to the applicable California Regional Water Quality Control Board staff and/or external third-party consultant(s) for additional review, the costs for which would be the responsibility of the applicant.
  4. Installation permits approved for alternative OWTS are subject to the same expiration and renewal time frames as specified in this Chapter for conventional systems.
- C. Operating permits. Operating permits are intended to serve as the basis for verifying the adequacy of alternative OWTS performance and ensuring on-going maintenance. In addition to an installation permit, an operating permit is required for all alternative OWTS, including those installed in connection with the replacement or expansion of existing OWTS as well as those for new construction and shall be subject to the requirements of Section 15.20.076 of this Chapter.
1. Performance monitoring and reporting. A monitoring schedule will be established for each alternative OWTS as a condition of the operating permit at the time of permit issuance and may be amended at the time of permit renewal. Said monitoring shall be performed to ensure that the alternative OWTS is functioning satisfactorily to protect water quality and public health and safety. The monitoring program will be in accordance recommendations of the system designer, manufacturer, or third-party reviewer.
  2. Monitoring requirements, including frequency of monitoring, will vary depending upon the specific type of alternative OWTS and be based on upon demonstrating conformance with manufacturer's specifications.
    - a. Monitoring frequency may be increased if, in the opinion of the EHB, system problems are experienced.
  3. Monitoring of alternative OWTS shall be conducted by or under the supervision of a registered qualified service provider.

4. Additionally, the EHB may require third-party or County monitoring of any alternative OWTS where deemed necessary because of special circumstances, such as the complexity of the system or the sensitive nature of the site. The costs for such additional monitoring would be the responsibility of the owner.
5. A monitoring report shall be submitted to the EHB in accordance with the reporting deadlines established by the operating permit and be signed by the Registered Qualified Service Provider. Notwithstanding formal monitoring reports, the EHB shall be notified immediately of any system problems observed during system inspection and monitoring that threaten public health or water quality.
6. In addition to regular inspection and monitoring activities, inspection and evaluation of alternative OWTS 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 be responsible for issuing 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 and to implement corrective measures, as needed, in a timely manner.
7. The EHB will, from time-to-time, compile and review monitoring and inspection results for alternative OWTS and, at least every five years, will provide a summary of results to the Central Coast Regional Water Quality Control Boards. Based on this review, the EHB may require corrective action for specific properties or certain types of alternative OWTS, or general changes in monitoring and inspection requirements.

D. Types of Alternative OWTS Permitted.

1. Supplemental Treatment Systems. Supplemental treatment is generally required to be incorporated into an OWTS when effluent quality has potential to impact groundwater or surface water, or when an alternative dispersal system necessitates clarified effluent to prevent clogging of the system.
  - a. Supplemental Treatment Systems shall be capable of meeting the effluent constituent limitations specified by Table 12, Effluent Constituent Limitations for Supplemental Treatment Systems.

**Table 12 - 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 3 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 6 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 6</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 this LAMP or MCC, Chapter 15.20, supplemental treatment systems are not required to meet effluent limitations for Total Nitrogen.

- i. The following supplemental treatment systems may be approved for use in Monterey County subject to compliance with the siting and design criteria specified in this Chapter:
  - i. Intermittent and recirculating sand filters.

- ii. Proprietary treatment units that provide secondary or better effluent quality. All proprietary treatment units shall be tested and certified by an independent testing organization such as the National Sanitation Foundation (“NSF”). 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 treatment standard before being considered for permitting. Listing standards include, but are not limited to:
        - NSF Standard 40-Residential: Onsite Systems
        - NSF Standard 245- Nitrogen Reduction
      - iii. Other alternative treatment systems approved by the EHB or the Central Coast Water Board.
  - 2. Alternative Dispersal Systems. The following alternative dispersal systems may be proposed for use in Monterey County subject to compliance with the siting and design criteria in this Chapter:
    - a. At-grade;
    - b. Mound;
    - c. Raised sand filter bed;
    - d. Seepage pit;
    - e. Shallow pressure distribution trench;
    - f. Subsurface drip dispersal; or
    - g. Other alternative dispersal systems approved by the director and appropriate California Regional Water Quality Control Board(s).
- E. Siting criteria, design and installation requirements. All horizontal setback, design and installation requirements specified in this Chapter for conventional OWTS also apply to alternative 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 2 of this Chapter to the extent practical. 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.
    - a. An arborist report shall be required when a qualified professional proposes to install an OWTS component within the minimum horizontal setback to a protected tree, as determined Title 20 or 21 of the Monterey County Code (Zoning Ordinances) to confirm that the installation and ongoing use of the OWTS will not detrimentally impact on the tree.
  - 2. 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 floodplain maps or based on historical evidence acceptable to the EHB. Replacement alternative OWTS may be

installed in areas known to be below the 10-year floodplain only when no other viable area exists on the property, in which case , 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 practical. Mitigation measures shall include:

- a. protecting OWTS supplemental treatment, pressure distribution and/or drip dispersal components from flood damage using structural tie-downs and/or elevating critical components above the 10-year flood level;
  - b. 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
  - c. providing additional emergency storage capacity for flood periods.
3. Ground Slope. Maximum ground slope for different types of alternative wastewater dispersal systems are specified by Table 9, Maximum Ground Slope for Alternative Wastewater Dispersal Systems.
  4. Vertical Separation to Groundwater. Where alternative OWTS are used, minimum vertical separation distance to groundwater, measured from the bottom of the dispersal system to the seasonal high-water table, may be reduced from the requirements that apply to conventional OWTS as specified by Table 12 below. Design requirements for alternative OWTS that will accept wastewater from non-domestic sources, such as restaurants or commercial/industrial operations, or receive more than 2,500 gallons of wastewater per day, shall be subject to additional restrictions on permissible groundwater separation distances at the discretion of the EHB or the Central Coast Water Board.

Type of Dispersal System	Vertical Separation to Groundwater (feet)*			
	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

\* Measured from the bottom of the dispersal system to the seasonal high-water table.

5. Soil Depth. Minimum depth of permeable soil beneath the bottom of the dispersal field shall be as specified in Table 13, Minimum Soil Depth Beneath Alternative OWTS, below for different types of alternative OWTS. Permeable soil is defined as having a percolation rate of 120 minutes per inch or faster or having a clay content of less than 60 percent, and shall not include solid rock formations or those that contain continuous channels, cracks or fractures. Additional soil depth requirements may be imposed based on system size (i.e., volume of wastewater flow) or site conditions or geographic locations to prevent groundwater mounding or surfacing effluent.

<b>Table 13 - Minimum Soil Depth Beneath Alternative OWTS</b>		
<b>Type of Dispersal System</b>	<b>Minimum Soil Depth (feet)*</b>	
	<b>2'</b>	<b>3'</b>
At-Grade Shallow Pressure Distribution Conventional Leachfield Trench with Supplemental Treatment		X
Supplemental Treatment and: At-Grade Raised Sand Filter Bed Shallow Pressure Distribution Subsurface Drip Dispersal Mound	X	

\* Measured from the bottom of the dispersal system

- F. Subsurface Drip Dispersal Systems. All wastewater discharged to a subsurface drip system shall receive supplemental treatment.
1. Horizontal setbacks for subsurface drip systems shall be the same as for conventional dispersal fields except that they may be reduced to 2 feet for structures and property lines.
    - a. An arborist report shall be required when a qualified professional proposes to install drip dispersal within 10 feet of a protected tree, as determined Title 20 or 21 of the Monterey County Code (Zoning Ordinances) to confirm that the installation and ongoing use of the OWTS will not detrimentally impact on the tree. Drip fields must be placed in native soil, unless fill material has been specifically engineered for that purpose, and installed as level as possible and parallel to elevation contours.
  2. Soil cover shall be at least 6 inches. Fill material may be placed over the drip lines in order to meet the minimum cover requirements provided the slope of dispersal area is not more than 20%.
  3. The area of the drip dispersal system shall be designed, located and maintained to prevent vehicular traffic over it and planted with appropriate vegetation upon installation to allow for uptake of nutrients from the wastewater.
  4. Head loss calculations shall be provided to ensure proper hydraulic pressure at the emitter since drip dispersal systems are pressure distribution systems.

5. Emitter lines shall be designed as a continuous loop circuit with no dead-ends.
  6. Vacuum release valves shall be installed at the highpoint of the emitter lines.
  7. All drip dispersal systems shall incorporate an automatic mechanism for backwashing or flushing the drip lines and filters.
  8. The maximum emitter longitudinal spacing on an emitter line shall be 2 feet. The maximum spacing between adjacent emitter lines in an absorption bed configuration shall be 2 feet.
  9. Drip dispersal systems shall be time dosed over a 24-hour period. Demand control dosing shall override timed dosing in periods of flow where timed dosing cannot accommodate the excessive flow.
  10. Drip dispersal systems shall be designed, installed, operated and maintained in accordance with manufacturer's recommendations, notwithstanding the requirements specified above.
- G. Seepage Pits. Seepage pits shall not be utilized for new, expansion, or replacement OWTS on existing lots of record. A variance to this standard may be considered for approval by the EHB provided the following criteria have been met:
- a. 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
  - b. The qualified professional shall incorporate supplemental treatment, including reduction of total nitrogen, into the OWTS design that meets or exceeds the effluent standards specified in Table 10, including total nitrogen reduction. When the separation to groundwater is less than 10 feet, bacterial disinfection shall also be required. In no case shall the distance between a seepage pit and groundwater be less than 5 feet, even when the alternative OWTS utilizes supplemental treatment and disinfection.
1. Seepage pits may not be used as the basis to demonstrate OWTS feasibility for new subdivisions.
  2. Seepage Pit Site Suitability and Design. The minimum soil evaluation requirements a 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 consistent for all proposed seepage pits.
    - a. When a seepage pit(s) has not been utilized previously 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, i.e. premature failure, an exploratory boring that shall extend at least 10 feet past the proposed total depth of the seepage pit.

- i. The boring shall be conducted and logged by a certified geologist or other qualified professional as approved by the EHB. The qualified professional shall determine if standard penetration test(s), also known as blow counts, are necessary to characterize the strata and propose the intervals(s) that they should occur for consideration by EHB.
  - ii. The certified geologist or other approved qualified professional shall submit a report to the EHB with findings that the installation and use of a seepage pits system(s) will be adequate to accommodate wastewater dispersal from the proposed
  - iii. The qualified professional shall recommend the appropriate soil application rate in accordance with Table 6, Soil Application Rate as Determined from Soil Texture, Structure and Grade
- b. When a seepage pit(s) has been utilized previously on the site and there is no evidence that deep soil conditions preclude the continued use of seepage pits, i.e. premature failure, an exploratory boring shall not be required prior to issuance of OWTS installation permit.
- i. The OWTS installation permit shall be conditioned to require that the seepage pit excavation be over-drilled by at least 10 feet to demonstrate that the vertical separation to groundwater has been met.

EHB reserves the right to require an exploratory boring when the previous seepage pit system failed prematurely.

- c. In the event groundwater is encountered, the boring or excavation shall remain for as long as necessary to allow the groundwater level to stabilize. The qualified professional and the property owner maintain full responsibility for protecting the public from any hazards related to the test borings or excavations.
- d. Once the qualified professional has determined the stabilized groundwater level, the boring or excavation shall be backfilled and compacted to the extent practical, to at least 10 feet above stabilized groundwater, or 5 feet when an approved disinfection unit is incorporated into the alternative OWTS with supplemental treatment. A 6-inch 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 bentonite and backfilled with drain rock or other approved material to the depth of the distribution pipe.

e. Seepage Pit Design Specifications. No permit shall be issued when seepage pits are proposed unless it is proposed as part of an Alternative OWTS that includes supplemental treatment that meets the standards set forth by Table 10 of this Chapter.

- i. The minimum diameter of the pit shall be 36 inches.
- ii. Seepage pits that are greater than 60 feet deep are not recommended and may require special review.
- iii. 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.

$$\text{Infiltrative Capacity} = \text{Diameter (feet)} \times 3.14 \times \text{Effective Depth (feet)}$$

- iv. The distance between adjacent pits shall be at least 20 feet, measured from the adjacent side walls of the adjacent pits.
- v. The pit shall be filled with clean rock of a diameter not less than 1 and 1 1/2 inches nor more than two and one half inches to a depth of two inches above the drain line, and covered with untreated building paper, or other approved material and earth backfill.
- vi. The drain line in the pit shall be perforated pipe three inches or more in diameter, placed in the center of the pit for the entire depth of the pit.
- vii. Seepage pits shall have the wastewater distributed evenly between the pits by means of a distribution box.

H. 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 1,000 gallons per day or more. Demand control dosing shall override timed dosing in periods of flow where timed dosing cannot accommodate the excessive flow. Time dosing is strongly encouraged for all systems whenever a pump is used to dose a dispersal system; 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.

I. Alternative OWTS Installation Requirements

1. Any component of an alternative OWTS must be installed by a qualified professional that has been certified by the manufacturer or proprietor to install the specific alternative OWTS component in accordance with the specifications for location,

components, size and depth as designed by the qualified professional and approved by the EHB.

2. An alternative OWTS treatment unit tank shall include a sample tap on the dosing pump discharge line or other suitable location as agreed upon by the EHB for effluent sampling.
  3. All components of the alternative OWTS shall be accessible upon installation. Watertight risers to grade shall be installed for each component.
  4. The qualified professional shall prepare Homeowner's Manual for the alternative OWTS, including the following:
    - a. license and contact information for the certified designer, installer, and service provider
    - b. as-built drawing with installation and system start-up dates
    - c. treatment process and performance expectations
    - d. lists of typical materials, tools, equipment and spare parts
    - e. routine cleaning and maintenance procedures
    - f. effluent testing procedures
    - g. troubleshooting tips
- J. Approval of Proprietary System. A manufacturer, distributor or other applicant may request that the EHB review a proprietary alternative OWTS supplemental treatment or dispersal system component for conformance with the County's minimum requirements by submitting to the EHB a "Request for Service" application with a deposit to recover costs associated with staff time to review the application materials in accordance with hourly rate established by the Health Department Fee Article I.E. as adopted by the Board of Supervisors. The application materials may include, but are not limited to the following:
- NSF certification
  - Product specifications, design standards and treatment objectives
  - Installation manual
  - Operation & Maintenance manual
  - Sample Service Contract
  - List of Qualified Service Providers within 250-mile radius of Monterey County
  - Parts and/or service distributor information

- List of jurisdictions where the system is currently approved for use
- 5 years of 'live operation' performance history

15.20.076 – Operating Permits and Deed Restrictions. Operating permits are intended to serve as the basis for verifying the adequacy of OWTS performance and ensuring on-going maintenance and/or water quality monitoring. The owner of real property served by a new or existing OWTS shall be required to apply for and obtain an operating permit. Conditions include, but are not limited to, alternate renewal period, monitoring, sampling, and pumping requirements.

A. Properties Served by a New Alternative OWTS. The application for an operating permit shall be concurrent with the application for an Alternative OWTS that is required to overcome site constraints or conditions that preclude the use of a conventional OWTS on the property. The operating permit will be approved by the EHB following:

1. EHB approval of the Alternative OWTS installation, including confirmation that the system is functioning in compliance with all applicable requirements.
2. Submittal of documentation to confirm that a valid operation and maintenance contract with a qualified service provider has been entered by the property owner.
3. Submittal of documentation to confirm that a deed restriction has been recorded against the property. This restriction shall run with the land and will act as constructive notice to any future property owner that the property is served by an alternative OWTS and is therefore subject to an operating permit with regular maintenance, monitoring and reporting requirements.
4. Payment of applicable fees.

B. Properties Served by an Existing Alternative OWTS. The application for an operating permit shall be made within 30 days of written notification from the EHB that an alternative OWTS exists on the property and is subject to an operating permit. The operating permit will be approved by the EHB following:

1. Submittal of a service summary report for the Alternative OWTS, for service completed within the previous 6 months, prepared by a qualified service provider.
2. Submittal of documentation to confirm that a valid operation and maintenance contract with a qualified service provider has been entered by the property owner.
3. Submittal of documentation to confirm that a deed restriction has been recorded against the property. This restriction shall run with the land and will act as constructive notice to any future property owner that the property is served by an

alternative OWTS and is therefore subject to an operating permit with regular maintenance, monitoring and reporting requirements.

- C. Properties with an Onsite Well or Monitoring Well that Requires Routine Monitoring. The application for an operating permit shall be concurrent with the application for an OWTS that necessitates routine water quality analysis as specified by Sections ## and ## of this Chapter. The operating permit will be approved by the EHB following:
1. Submittal of initial water quality analysis.
- D. Properties Served by a Vault Toilet or Haul Away System. The application for an operating permit shall be made concurrent with an application to install a vault toilet or haul away system or within 30 days of written notification from that EHB that a vault toilet or a haul away system exists on the property and is subject to an operating permit. The operating permit will be approved by the EHB following:
1. Submittal of documentation to confirm that a valid operation and maintenance contract with a qualified service provider has been entered by the property owner.
  2. Submittal of documentation to confirm that a deed restriction has been recorded against the property. This restriction shall run with the land and will act as constructive notice to any future property owner that the property is served by a vault toilet or haul away system, whichever applies, is therefore subject to an operating permit with regular maintenance, monitoring and reporting requirements.
- E. Other Uses of Operating Permits. An operating permit may also be utilized for circumstances other than alternative OWTS, such as for larger flow OWTS (>2,500 gpd), or where, in the opinion of the director, 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 approved in accordance with the general requirements of this Section and any additional requirements recommended by the qualified professional or deemed appropriate by the EHB.
- F. Transfer of Operating Permit. Operating permits are issued to the owner of the real property served by the OWTS. Within 30 days of any change in ownership of real property served by an OWTS for which there is a valid and unexpired operating permit, the purchaser/transferee of the real property must file a "Notice of Change in Ownership for Operating Permit" with the EHB to ensure that the operating permit is transferred into the name of the new owner.
- G. For purposes of this Section, homeowners' associations will be considered the owner of the real property for condominiums and townhouses.
- H. After initial issuance, the operating permit is required to be renewed periodically, the standard renewal period being two years for alternative OWTS and vault toilet or

haul away systems, and 5 years for water quality monitoring only. The EHB may establish conditions allowing the time period between renewals to be extended for certain types of OWTS based on a record of favorable performance or other factors warranting a reduction in system oversight by EHB.

I. Renewal of an operating permit requires:

1. payment of the applicable fees, upon receipt of notice from the director; and
2. submission of the results of required system inspection and monitoring.

Failure to pay the required fee or submit the specified monitoring and inspection information, or failure to undertake any required corrective work specified by the EHB may be cause for issuance of a citation, penalty fees, non-renewal and/or revocation of the operating permit by the EHB. The EHB may place a lien on the property for recovery of any associated abatement costs and unpaid fees.

15.20.080 - Miscellaneous suggestions and recommendations. On-site sewage disposal system problems can be minimized with proper site location, design, installation, operation and maintenance. The following are miscellaneous suggestions and recommendations to users and prospective users of OWTS, and are not mandatory unless made so by other provisions of this Chapter, the Monterey County Code, or by State or Federal law, as may be amended from time to time:

- A. It is recommended that users of OWTS keep records as to when the system was installed and the dates when it was inspected, and the septic tank pumped.
1. If scum and sludge are allowed to accumulate to a volume sufficient to flow into the dispersal system, failure of the system will occur. Correction most often involves the installation of a replacement dispersal system. A septic tank pumping contractor licensed with Monterey County should be engaged when a tank needs inspection or pumping.
  2. Septic tanks should be pumped whenever the scum layer is within three inches of the outlet device or the sludge level is within eight inches of the bottom of the outlet device.
  3. Water conservation and solids reduction practices are recommended.
- B. Garbage grinders are not recommended for use in homes with septic tanks. When garbage grinders contribute to the sewage, it is recommended that septic tanks be inspected for sludge accumulation and depth of scum layer every two years. When such grinders are not used the inspection period should be every two to five years.
- C. Grease and oil should not be introduced into the OWTS. Bleach, solvents, fungicides and any other toxic material should not be poured into the septic tank system. Nutrient and heavy metal removal can be facilitated by planting ground cover vegetation over shallow subsurface dispersal fields. The plants must have the

following characteristics: (1) evergreen; (2) shallow root systems; (3) numerous leaves, (4) salt resistant; (5) ability to grow in soggy soils; and (6) low maintenance.

- a. Plants downstream of the leaching area may also be effective in nutrient removal.
- D. Subsurface disposal systems should have a slightly sloped finished grade to promote surface runoff.
- E. Work associated with OWTS installation should be scheduled only when infiltrative surfaces can be covered in one day to minimize windblown silt or rain clogging the soil.
  - a. Surface runoff should be diverted around open trenches/pits to limit siltation of the bottom area.
- F. Bottom and sidewall areas should be left with a rough surface. Any smeared or compacted surfaces should be removed.
  - a. In clayey soils, work should be done only when soil moisture content is low to avoid smeared infiltrative surfaces.
- G. Two inches of coarse sand should be placed on the bottom of trenches to prevent the compacting of soil when leach rock is dumped into the disposal fields. Fine sand should not be used as it may lead to system failure.
- H. Prior to backfilling, the distribution system should be tested to check the hydraulic loading pattern.
- I. Installation of trenches within the dripline of trees should be avoided where possible. More than one-third of a tree's root system should not be damaged due to an OWTS installation.

15.20.090 - Abandoned sewage disposal facilities. Every cesspool, septic tank, pump chamber and hollow seepage pit which has been abandoned, or has been discontinued otherwise from further use, or to which no waste or soil pipe from a plumbing fixture is connected, shall have the sewage removed therefrom and be completely filled with earth, gravel or concrete. A permit to abandon shall be obtained prior to any work being performed.

15.20.100 - Plan checking for sewage treatment plants.

- A. Whenever any law or regulation of this State requires that a sewer system corporation which is subject to regulation by the Public Utilities Commission, or by any other governmental agency, the applicant shall submit to the EHB, for checking, its plans for a sewer system to be constructed by or for it. Such plans shall be submitted to the EHB, together with a fee as set forth in Chapter 1.40 of the

Monterey County Code, and the EHB shall check such plans and render his or her report thereon if so required.

- B. As used in this Section, "sewage treatment plant" and "sewer system" mean a sewer system as defined by Section 230.5 of the Public Utilities Code, and do not include a sewer system which merely collects sewage on the property of a single owner.

15.20.120 - Prohibited disposition of sewage and other waste matter. 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 any lands whatever; or (2) affect or enter any river, stream, creek, spring, lake,

- A. No housing or dwelling units, such as, but not limited to, mobile homes or trailers, shall be placed or replaced unless such location complies with Item 1 in Table 2, Horizontal Setbacks, incorporated by this reference.
- 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 established, operated, or maintained by the County of Monterey without a permit to do so from said County Board of Supervisors.

15.20.130 - Appeals. For those matters not appealable to the California RWQCB, any person dissatisfied with the action, decision or determination of the EHB granting or denying any permit hereunder may, within 10 days of such granting or denial, appeal to the Board of Supervisors. Such appeal shall be in writing and shall be filed with the Clerk of the Board of Supervisors. The Board of Supervisors shall, within 15 days thereafter, set the time for public hearing before the Board within 35 days thereafter,

and shall give notice of the time and place thereof to the applicant at least 15 days prior to said hearing. Said hearing may be continued from time to time not exceeding 60 days. Based upon the testimony of the witnesses and other evidence presented at said hearing the Board of Supervisors shall, within 10 days after close of the hearing, make its order affirming or reversing, in whole or in part, or modifying, the action, decision or determination of the EHB.

15.20.140 - Administration and enforcement—Right of entry. The Director of the EHB or the Director's authorized deputy(ies), assistant(s), or designee(s), hereafter referred to as the EHB, 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 such building or premises is occupied, the EHB shall first present proper credentials and request entry. If such building or premises is unoccupied the EHB shall first make a reasonable effort to locate the property owner or other person having charge or control of the building or premises and request entry. If such entry is refused, the EHB shall have recourse to such remedies as are provided by law to secure entry.

15.20.160 - Indemnification. Each permit approved pursuant to this Chapter shall have as a condition of the permit, a requirement that the applicant indemnify and hold harmless the County and its officers, agents, and employees from actions or claims of any description brought on account of 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.

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

15.20.180 - Conflicts with other chapters. If this Chapter is found to be in conflict with any other chapter, section, subsection, or title, the provisions of this Chapter shall prevail.