# Chapter 15.20 SEWAGE DISPOSAL

#### Sections:

# 15.20.005 Derivation of regulatory authority.

The County of Monterey entered into an agreement with the California Regional Water Quality Control Board in 1979 which designates "the Director of Health or his or her authorized representative" as "the administrator of the individual sewage disposal regulations". The Memorandum of Understanding signed by Sam Farr (Chairman of the Board of Supervisors) on June 12, 1979 states that the regulatory authority is conditional upon the County administrative authorities enforcing the Regional Water Quality Control Plan, Central Coast Basin (Basin Plan). (See Appendix A). Any item marked with an asterisk (\*) is an element of the Basin Plan.

(Ord. 4055, 2000)

#### 15.20.010 Definitions.

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

- A. "Cesspool" means an excavation in the ground which receives the integrated discharge of a drainage system or part thereof, so designed as to retain the organic matter and solids discharging therein, but permitting the liquids to seep through the bottom and sides.
- B. "Clay"\* means a soil particle that is less than two microns in size.
- C. "Curtain drain"\* means a trench with a pipe in the bottom of the trench for the purpose of intercepting and diverting subsurface water.
- D. "Director" means Director of Monterey County Health Department, or the Director's authorized deputy(ies), assistant(s), or designee(s).
- E. "Disposal field" refers to a trench, seepage pit, mound or other method of subsurface disposal of waste water.
- F. "Downhill embankment" means an embankment that interrupts the soil strata of the natural slope of the land or has a slope of thirty (30) percent or greater. The slope is measured by taking into consideration the entire slope of the hillside. The embankment can either be manmade or created by natural processes. Examples: manmade (e.g. road cuts, pool/spa excavations etc.); natural (e.g. thirty (30) percent slope, erosion gully, cliff face, etc.).
- G. "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 most recent edition of the Uniform Building Code and the Uniform Housing Code. Examples: Primary Dwelling Unit, Caretaker Units, Senior Citizen Units, Second Dwellings.
- H. "Health Department" means the Monterey County Health Department.
- I. "Effective trench depth"\* means the depth of the useable permeable layers of soil below the bottom of the trench pipe.
- J. "Graywater" means untreated household waste water which has not come into contact with toilet waste. Graywater includes used water from bathtubs, showers, bathroom wash basins, and water from

- clothes washing machines and laundry tubs. It shall not include waste water from kitchen sinks or dishwashers. (See Appendix B for expanded definition.)
- K. "Graywater system" means a graywater disposal system that disposes of graywater subsurface and conforms with the latest edition of the Uniform Plumbing Code (Appendix G). (See Appendix B.)
- L. "Guesthouse" as described in Monterey County Zoning Ordinances (Titles 20 and 21) is considered a bedroom for purposes of sizing the septic tank system.
- M. "Impervious layer" \* is defined as having percolation rate slower than one hundred twenty (120) minutes per inch or having clay content of sixty (60) percent or greater.
- N. "Impervious material"\* is defined as having a percolation rate slower than one hundred twenty (120) minutes per inch or having clay content of sixty (60) percent or greater.
- O. "Person" includes an individual, firm, association, partnership, corporation, and public entity.
- P. "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.
- Q. "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.
- R. "Septage" means solid residue with low water content from septic tanks, privies, or wastewater treatment facilities.
- S. "Septic tank" means a water-tight receptacle which receives the discharge of a sewage drainage system or part thereof, designed and constructed so as to retain solids, digest organic matter through a period of detention and allow the liquids to discharge into the soil outside of the tank through a subsurface disposal field or seepage pit meeting the requirements of this ordinance.
- T. "Septic tank system" is a wastewater disposal system, and means a septic tank with the effluent discharging into a subsurface disposal field.
- U. "Shallow leachfield" means a trench that is five feet or less in effective trench depth.
- V. "Sheetwater" means a flow of water in a relatively thin sheet of a generally uniform thickness.
- W. "Waste water" includes sewage, graywater, and any and all other contaminated liquid waste substances associated with human habitation.
- X. "Watercourse"\* means: (1) a natural or artificial channel for the passage of water; (2) a running stream of water; (3) a natural stream fed from permanent or natural resources, including rivers, creeks, runs, and rivulets. There must be a stream usually flowing in a particular direction (though it need not flow continuously) in a definite channel, having a bed or banks and usually discharging into some stream or body of water.

#### 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 Director. 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. 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. The flush toilet shall be connected either to a septic tank system 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; or
- 3. 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
  - A mobile workplace (i.e. work crews that move from one worksite to another worksite) and it is
    determined by the Director 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
  - 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 Waste water 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 a septic tank system 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.

(Ord. 4055, 2000)

#### 15.20.035 Septage disposal.

Disposal of septage shall be accomplished in a manner acceptable to the Director (such as a municipal wastewater facility or a permitted solid waste site that accepts disposal of septage).

(Ord. 4055, 2000; Ord. 4055, 2000)

#### 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 within two hundred (200) feet of an approved sanitary sewer, or which is located 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 was in existence on June 26, 1981 and is connected to a septic tank 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; 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. Topographical conditions would make an impossible grade for a connection pipe.

## 15.20.050 Public assemblages.

No person shall promote or conduct, nor shall any person, on property owned by such person permit or allow an 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 ten (10) days per calendar year adequate chemical toilets may be used.

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 seat per forty (40) persons whichever number is greater.

Publicly owned facilities, such as buildings, parks, beaches and recreation areas are exempt from the provisions of this Section.

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.

All chemical toilets must be pumped at lease once per day or more often if necessary. Disposal of pumped waste must be at a site approved by the Director.

More frequent pumping may be substituted for the required number of toilets.

If toilets are pumped and emptied twice a day, one toilet seat per eighty (80) persons shall be adequate.

If toilets are pumped and emptied three times a day, one toilet seat per one hundred twenty (120) persons shall be adequate.

(Ord. 4055, 2000; Ord. 2731,1981)

# 15.20.060 Septic tank system/graywater system permits.

- A. Except when a privy is permitted by Section 15.20.020 of this Chapter, no person shall either as a principal or as an agent, do any of the following things without first obtaining a septic tank system or a graywater system permit from the Director:
  - 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 public or county franchised sanitary sewer;
  - 2. Excavate for, construct or otherwise install or emplace a septic tank system or graywater system, or any part thereof;
  - 3. Repair or reconstruct an existing septic tank system or graywater system, or any part thereof.

- B. All new septic tank systems or graywater 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. An application for a septic tank system or graywater system permit shall be in writing, on a form prescribed by the Director, and shall contain the following information, or such part thereof as the Director may deem necessary. Items (5), (7), (8), (9), (10), (12), (13), and (14) shall be on a plot map in a scale no less than one inch equals forty (40) feet (i.e. 1"=40'; 1"= 30'; 1"=20'; etc.):
  - 1. Property owners name, home address and telephone number.
  - 2. A description of the property where the work is to be done, sufficient for identification, such as street address, name of subdivisions or tract, lot number, and County Assessor's Parcel Number.
  - 3. Sketched outline of the property, giving dimensions and the direction of north.
  - 4. Statement that the property is level, or if not level, then giving both existing elevations and proposed finished grades.
  - 5. Dimensioned outlines and location of all existing and proposed structures and hard surfaces, such as patios, driveways, walks, etc.
  - 6. A statement of the maximum expected waste volume per day: For dwelling units and/or guesthouses, the number of bedrooms and whether or not a garbage disposal will be installed and all accessory uses with plumbing must be indicated (See Table E incorporated by this reference). For other uses, see Table C incorporated by this reference.
  - 7. Location and elevation of house sewer outlet and proposed location and elevation of septic tank and disposal field.
  - 8. Location and nature of any existing waste disposal installation on the property.
  - 9. Location of any existing tree to remain in place which may affect location of septic tank or disposal field
  - 10. Location of any existing well, whether domestic or irrigation, and whether in use or abandoned, either on the property or within one hundred (100) feet of the property.
  - 11. Name of water utility or source of domestic water supply.
  - 12. Location of any 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).
  - 13. Location of ocean, lakes, sloughs, streams, springs, water channels, water courses, reservoirs, water supplies or any other body of water on or adjacent to the property.
  - 14. Location of all recorded easements.
  - 16. Such additional data as may be necessary, in the judgment of the Director, to insure that the proposed method of sewage disposal will not endanger health and sanitation.
  - 17. Depth to groundwater.

Such application 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.

D. Repair area required for issuance of a septic tank system permit:

- 1. For lots created after June 26, 1981, no permit for a new septic tank system shall be issued unless the property which is to receive the system contains sufficient suitable land areas for a standby disposal field at least twice as large as the area to be used for the original system.
- Lots of record prior to June 26, 1981 must have a standby area at least as large as the area to be used for the original system.
- 3. Where construction will make the standby areas inaccessible to necessary repair equipment, installation of the standby disposal field(s) shall be required.
- E. Minimum lot size required for issuance of a septic tank system permit:
  - 1. On new divisions of land:
    - a. If the lot is to be served by a domestic water system of two or more connections and the sewage disposal is by means of a septic tank system, then the lot size shall not be less than one gross acre.\*
    - b. If the lot is to be served by a single connection well for the source of domestic water and the sewage disposal is by means of a septic tank system, then the lot size shall not be less than two and one-half gross acres.
    - c. For areas without approved Wastewater Management Plans, septic tank systems are prohibited within a reservoir watershed where the density for each land division is less than two and one-half acres.\*
  - 2. For existing lots of record:
    - a. In an existing water service area, in which a lot is located, the minimum lot size shall be two and one-half acres when the following conditions exist:
      - 1. The lot is either currently being served by the water purveyor of the water service area in which the lot is located, or during the subdivision process, the lot was created to be served by the water purveyor of the water service area, upon development of the lot;
      - 2. It is proposed to disconnect the lot from the water purveyor and be served by a single connection onsite well for domestic water, or develop another well for other purposes; and
      - 3. Sewage disposal is by means of a septic tank system.
    - b. For existing lots of record that are less than one gross acre. The soils, setbacks, and other physical constraints must conform with the standards as set forth in this Chapter. If the lot is not served by a water system, then an onsite single connection well may also serve this lot if it meets all setback requirements, addresses all physical constraints, and conforms with the standards as set forth in this Chapter, and the California Water Well Standards, as may be amended from time to time.
  - 4. Notwithstanding the density limitations set forth in Subsections E1, and E2 above, and notwithstanding any limitation found in the applicable land use plans, secondary dwelling units shall be limited to a minimum parcel size of two acres, where soil and other physical constraints conform with this Code. Additional dwelling units must have one acre per dwelling unit.\*
- F. No septic tank/graywater system permit shall be issued where the soils formations contains continuous cracks, channels or fractures. (This prohibition does not apply if a set-back distance of at least two hundred fifty (250) feet to any domestic water supply well or to surface water is assured.)\*
- G. No septic tank/graywater system permit shall be issued for a septic tank system in an area subject to ten (10) year floods.\*

- H. No septic tank/graywater system permit shall be issued in any subdivision unless the subdivider clearly demonstrates that the use of the septic tank/graywater system will not adversely affect beneficial water uses and that the use will comply with all the requirements of this Chapter.\*
- I. No septic tank/graywater system permit shall be issued in any area where continued use of on-site systems, constitutes a pubic health hazard, or where there is an existing or threatened condition of water pollution, contamination or nuisance.\*
- J. No septic tank/graywater system permit shall be issued when, any part is proposed to be located in any lot other than the lot which is the site of the building or structure served by such system unless the Director, for good cause allows it.
- K. Where limitations of the land, and lack of limitations on the proposed usage, could create public health hazards, special conditions shall be applied to the septic tank permit to mitigate this concern. These conditions shall include but not be limited to conditions relating to system design, construction, installation, maintenance, surveillance and operation.
- L. All work for which a permit is required by this Chapter shall be subject to inspection by the Director, and a final inspection and approval of a completed system must be obtained before it is covered with earth. No septic tank system shall be used until such final inspection and approval is obtained. A copy of the permit shall be on the work site when an inspection is called for.

It is the duty of the permittee or his or her agent to call for such final inspection, and any other inspections which the Director 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 twenty-four (24) hours in advance of any required inspection, exclusive of Saturdays, Sundays, holidays. The permit number, shall be provided by the permittee or his or her agent, at the time the request for the inspection is made.

Where work for which a permit is required by this Chapter is commenced 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.

Satisfactory completion of any permitted work shall be evidenced by the Director in writing, on the permit or otherwise. He or she shall not give such evidence of his or her approval unless and until all accrued charges have been paid.

- M. Minimum Percolation Rates. No permit for a septic tank system shall be issued unless the property to receive the sewage effluent has a minimum percolation rate as follows:
  - 1. The minimum percolation rate for a test hole less than twenty (20) feet in depth is one inch per hour or greater (sixty (60) minutes/inch or less).
  - 2. The minimum percolation rate for a test hole of twenty (20) feet or more is two inches per hour or a greater rate (thirty (30) minutes/inch or less).
  - 3. When percolation rates exceed twelve (12) inches per hour (< five minutes per inch), additional testing may be required to prove that there will be no contamination of domestic groundwater.
- N. No permit shall be issued until the owner of the property involved has obtained the approval of the proposed land use from the appropriate governmental agencies.
- O. No permit shall be issued for systems with more than five connections, or with a total discharge in excess of two thousand five hundred (2,500) gallons per day, unless a written approval from the California Regional Water Quality Control Board is first obtained. Discharges from community subsurface disposal systems (serving more than five parcels or more than five dwelling units) are prohibited unless:\*
  - 1. Seepage pits have at least fifteen (15) vertical feet between the pit bottom and the highest usable ground water, including perched groundwater.\*

- 2. Sewerage facilities which are operated by a public agency. (If a demonstration is made to the Director that an existing public agency is unavailable, and formation of a new public agency is unreasonable, a private entity with adequate financial, legal and institutional resources to assume responsibility may be acceptable.)\*
- 3. Dual systems are installed (two hundred (200) percent of total of original calculated disposal area with suitable repair area in reserve per percolation tables set forth in Section 15.20.070G16 below.)\*
- 4. An expansion area is included for replacement of the original system based on the percolation rates as set forth in 15.20.070.G16.\*
- Community systems provide duplicate individual equipment components for components subject to failure.\*
- P. No permit shall be issued where the discharge exceeds forty (40) grams per day of total nitrogen per acre (three hundred (300) gallons of untreated sewage per acre).\*
- Q. Every permit issued by the Director shall expire and become null and void if any work authorized thereby is not installed or completed within one year from the date of issuance. Upon expiration, no further work shall be done unless and until a new permit has been obtained or applicant has received up to a sixty (60) day extension in exceptional circumstances.
- R. The Director may, in writing, suspend or revoke a permit issued pursuant to this Chapter whenever the permit is issued 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.
- S. Any changes in the structures, including changes in location and additions made after submitting the plans to obtain the septic system permit to the Health Department without notification and approval of these changes from the Health Department will void the septic system permit.

(Ord. 4055, 2000; Ord. 3380 § 1, 1989; Ord. 3256 §§ 1, 2; Ord. 3000 § 3, 1984, Ord. 2945, 1983; Ord. 2731, 1981)

#### 15.20.065 Licensing requirements.

Construction or major repair of an onsite wastewater disposal system shall be made by a contractor duly licensed by the California State Contractor's Board to install onsite waste disposal systems.

(Ord. 4055, 2000)

#### 15.20.070 Standards and specifications.

A. Location of Septic Tank Systems. 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 Director 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 tests required by the Director shall be made in the manner directed by him or her and at the expense of the applicant.

No septic tank system, or part thereof, shall be located at any point having less than the minimum distances indicated in Tables A and B, unless for good cause, a variance therefrom is allowed by the Director.

# Table A Location Of Septic Tank System

Minimum Horizontal Distance Required From:	Septic Tank	Leach Field	Seepage Pit

1. Building, Structure, or Mobile Home	5 ft.	10 ft.	10 ft.
2. Property Line	10 ft.	10 ft	10 ft.
3. Domestic Water Supplies*	100 ft.	100 ft.	150 ft.
4. Domestic Water Line (See also 15.20.070 A(1)	10 ft.	10 ft.	10 ft.
5. Bodies of Water <sup>1</sup> (e.g. ocean, lakes, and ponds etc.)	100 ft.	100 ft.	100 ft.
6. Watercourse*: measured from the high water mark. [See	100 ft.	100 ft.	100 ft.
15.20.070 A(2)]			
7. Reservoir Spillway Elevation*	100 ft.	200 ft.	200 ft.
8. Springs, natural or any part of man-made spring*	100 ft.	100 ft.	100 ft.
9. Large trees (trunk 5 in. or more in diameter, 2 ft. from	10 ft.	10 ft.	10 ft.
ground level)			
10. Downhill embankment <sup>4</sup> (manmade or natural)	50 ft. <sup>2,4</sup>	25 ft. <sup>3,4</sup>	50 ft. <sup>2,4</sup>
11. In ground Swimming Pools/Spas	25 ft.	25 ft. <sup>4</sup>	25 ft. <sup>4</sup>
12. Curtain Drains*			
Up slope		20 ft.	20 ft.
Down slope		50 ft.	50 ft.

<sup>&</sup>lt;sup>1</sup> Those bodies of water not used as reservoirs as defined.

- 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.
- 2. Septic system adjacent to potable waterways with year round flow. Septic systems on new or undeveloped lots of record adjacent to potable waterways with year round flow and waterways which have been designated as a beneficial use for domestic water supply shall comply with the following requirements:
  - a. No septic system, or part thereof, shall be located at any point having less than a minimum distance of one hundred (100) feet.
  - b. The piping of any part of the septic system including the pipe from the house of the septic system across or under any waterway designated for domestic use is prohibited.
  - c. A percolation test must be performed. No permit for a septic tank system located greater than one hundred (100) feet, but less than one hundred fifty (150) feet away from a potable waterway shall be issued if the percolation rate is found to be less than five minutes per inch greater than twelve (12) inches per hour).

<sup>&</sup>lt;sup>2</sup> Measured from sidewall of trench or pit walls. If soils or formations contain continuous cracks or fissures, then minimum setback must be one hundred (100) feet.

<sup>&</sup>lt;sup>3</sup> Measured from end wall of trench. If soils or formations contain continuous cracks or fissures, then minimum setback must be one hundred (100) feet. This setback distance shall be used for pool/spas.

<sup>&</sup>lt;sup>4</sup> These distances may be reduced if the effective trench depth or pit wall is at a lower elevation than the bottom elevation of the downhill embankment. However the distances cannot be reduced to less than ten (10) feet for structures (e.g. underground pool/spas, basements etc.).

<sup>&</sup>lt;sup>5</sup> When a curtain drain is an integral part of the wastewater disposal system design, so as to protect the wastewater disposal system either in part or in whole from intrusion of subsurface water, then the piping in the curtain drain must conform to Section 15.20.070F6.

d. No permit for a septic tank system located greater than one hundred (100) feet but less than one hundred fifty (150) feet away from a potable waterway shall be issued without studies to determine if contaminants will cause contamination of the domestic waterway to a level that will no longer be potable. The nitrate/contaminate study must contain the following elements:

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 Director.

The fate of the contaminates (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.
- 3. The bottom of the disposal field shall keep a minimum vertical distance of ten (10) feet from bedrock or other impervious layer.\*

# Table B Minimum Vertical Distance Above Groundwater<sup>1</sup>\*

#### (Measured from bottom of disposal field)

Disposal field	Percolation rate, min/in	
	<1	50 <sup>2</sup> ft.
	1—4	20 <sup>2</sup> ft.
	>5	10 ft.

Seepage Pit	Soil Type	
	Gravels <sup>3</sup>	50 <sup>2</sup> ft.
	Gravels with few fines <sup>4</sup>	20 <sup>2</sup> ft.
	Other	10 ft. <sup>5</sup>

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

<sup>&</sup>lt;sup>2</sup> Unless a minimum horizontal separation of two hundred fifty (250) feet between the disposal area and any existing or future domestic water supply well or surface water is assured, in which case minimum ground water separation shall be twenty (20) feet when the percolation rate is less than one minute/inch, and ten (10) feet when the percolation rate is one to four minutes/inch.

<sup>&</sup>lt;sup>3</sup> Gravels with few fines—Soils with ninety (90) percent to ninety-four (94) percent coarse fraction larger than a No. 4 sieve.

- <sup>4</sup> Gravels—Soils with over ninety-five (95) percent by weight coarser than a No. 200 sieve and over half of the coarse fraction larger than a No. 4 sieve.
- <sup>5</sup> In the case of a community subsurface disposal system it must be fifteen (15) feet.
- B. Graywater Systems. Graywater systems must conform with the latest edition of the Uniform Plumbing Code (See Appendix G incorporated by this reference) regarding design criteria, construction, installation. (See Appendix B incorporated by this reference)
- C. Soils/PercolationT. For lots of record the Director may require soil testing if in the opinion of the Director that information is needed to design the disposal field. For existing lots of record the Director may issue a permit when less percolation is measured if the applicant demonstrates to the satisfaction of the Director that another method of disposal (such as e.g. evaporation, mound, etc.) can be used, is equally effective and the public health and safety will be protected.

Soil testing and soils reports shall be required for all subdivisions proposing subsurface disposal. There shall be at least one soil profile analysis test per lot and one percolation test hole per two lots. Soil profile analysis may be reduced if conformity to given soil type can be established. The report submitted shall demonstrate the feasibility of the proposed lot design and density. Nitrate loading of subsoil surfaces when septic systems are proposed shall be analyzed.

The Taft Method, or an equivalent method approved by the Director shall be used for all percolation testing.

- Soil Testing Criteria:
  - a. Two types of testing procedures are generally required.
    - (1) Soil borings.
    - (2) Percolation tests.

Applicants must contact the Health Department for review and approval of the soil testing proposal (e.g. the number, location of soil borings and percolation test borings, depth of borings, number of test holes to be percolated etc.). The Director must be notified at least forty-eight (48) hours prior to the date of soil testing in order to have the opportunity to observe the soil testing and to allow the Director to give directions regarding any increased soil testing that may needed. If this is not done the soils report may not be accepted.

- b. California State licensed engineers, registered environmental health specialists, or other soils professionals as approved by the Director shall perform all percolation tests unless otherwise approved by the Director.
- c. The Health Department shall be notified of the time and place of all soil borings and percolation tests at least forty-eight (48) hours prior to testing. Severe soil limitations may require additional evaluation by soil scientists, engineering geologists, registered geologists, or similarly qualified soil experts.
- d. A report of all test results must be presented to the Health Department. Such report shall include a topographic map showing property lines, any adjacent wells, recorded well lots, springs, water courses, or drainage channels within one hundred (100) feet of the property lines, reservoirs within two hundred (200) feet of property lines, as well as within property lines. Such report shall 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 test report shall contain the following information:
  - (1) Assessor's Parcel Number;
  - (2) Minor subdivision number or major subdivision name;

- Date or period of testing;
- (4) Soil logs;
- (5) Person performing test and license or registration number;
- (6) Percolation test results;
- (7) Conclusions and Recommendations: This Section shall specifically state whether the lot(s) meet(s) the standards found in this Chapter. Specific recommendations shall be made about the location and design of the septic tank system(s);
- (8) Where seasonally high groundwater, sheetwater, and/or perched water is suspected, wetweather testing shall be performed. These tests shall be performed during the time when perched water or when high groundwater levels would be expected. Such testing shall be completed per the policy as determined by the Director.
- e. Soil borings to determine depth to groundwater may be performed by the applicant under the supervision and approval of a representative of the Health Department unless the Director waives this requirement for good cause.

#### 2. Soil Testing Procedure:

- a. Soil Borings:
  - (1) All soil borings must be to a minimum depth of twenty-two (22) feet. When subsurface disposal fields over ten (10) feet in depth are considered, soil borings must be extended at least ten (10) feet below the proposed maximum depth.
  - (2) If seepage pits are proposed, test holes must extend at least ten (10) feet below the maximum depth of the proposed seepage pit. In the case of a community subsurface disposal system test holes must be fifteen (15) feet below the maximum depth of the proposed seepage pit. [See Section 15.20.060.0(1) incorporated by this reference].\*
  - (3) All areas where groundwater is encountered within ten (10) feet of the surface shall be considered unsuitable for sewage disposal.
  - (4) All areas where groundwater is encountered within fifteen (15) feet of the surface shall be considered marginal for sewage disposal.
  - (5) The Health Officer may require that test holes remain open for at least twenty-four (24) hours to allow determination of static water level. All holes shall be adequately covered to preclude any safety hazard.
  - (6) 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.
  - (7) All boring sites and or monitoring wells must be flagged. The lot and/or the boring numbers shall be noted in indelible ink on the observation pipe. There shall be sufficient pipe extending above grade or separate staking to clearly locate each boring site.

#### b. Percolation Tests:

- (1) Percolation tests are performed with water, not sewage, and are therefore taken as indicators only of the potential of any area for sewage disposal through soil percolation.
- (2) Percolation tests must be performed according to procedures outlined in the U.S. Public health Service Manual No. 526, pp. 3—8. (Robert A. Taft Engineering Center Percolation Test Procedure) or an equivalent method approved by the Director.

- (3) The percolation rate shall be measured over a minimum time period of four hours unless for good cause the Director waives this requirement.
- (4) A minimum of twenty-four (24) hours presoak time, as provided by the Taft method of testing, shall be required.
- (5) A statistically valid number of test holes must be percolated in any area proposed for sewage disposal. The Health Department must approve the number of test holes to be percolated.
- (6) Percolation tests must be done at the depth proposed for sewage disposal.
- (7) Percolation rates of more than thirty (30) minutes per inch (less than two inches per hour) are unsuitable for seepage pits. Percolation rates of more than sixty (60) minutes per inch (less than one 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 Director, for that area to be considered suitable for subsurface disposal of septic tank effluent.
- (8) 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 Director shall not approve such marginal percolation rates when a consideration of the above criteria indicates that the public health will be endangered.
- (9) 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.
- (10) For each leachfield a minimum of three percolation test locations shall be used to determine system acceptability.\* The tests shall be performed at proposed subsurface disposal system sites and depths. The number of tests may be reduced if the soils are found to be particularly favorable and uniform throughout the site.
- D. Septic Tank Sizing and Estimated Sewage Flows.
  - 1. The liquid capacity of septic tanks for multiple dwelling, commercial, industrial and institutional buildings shall be at least twice the maximum anticipated daily load as determined empirically or from standards of accepted good practice recognized by State and Federal national authorities. For the purposes of this Chapter the following quantities (daily load) shall be used. All uses will be considered at maximum flow. (See Table C incorporated by this reference)

Table C

Quantities Of Sewage Flow

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
Factory Workers (per 8 hr. shift exclusive of industrial waste):	
Without Showers	15
With Showers	35
Cafeteria, add	5/employee
Hotels:	, , ,
W/out private baths [per bed (2 people/bed)]	50
W/ 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
W/ 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

2. The liquid capacity of all septic tanks for single family dwellings shall conform to the following table:

Table D

Minimum Capacity Of Septic Tanks For Single Family Dwelling

New Construction	
1 or 2 bedrooms <sup>1</sup> :	1,000 gallons <sup>2</sup> - 9 x 4 x 5 inside dimensions, or equivalent
Three bedrooms:	1,500 gallons - 10 x 4 x 6 inside dimensions, or equivalent
Four bedrooms:	1,500 gallons

Existing Construction	
Three or less bedrooms:	1,000 gallons
Four bedrooms:	1,500 gallons
More than 4 bedrooms:	Add 500 gal. for each additional bedroom.
With garbage grinder:	Add 500 gal. to size of tank.

<sup>&</sup>lt;sup>1</sup> Dens, sewing rooms, office rooms, and similar rooms which, in the opinion of the Director, are so located and designed as to be usable as bedrooms, shall be considered bedrooms for the purpose of this Section.

- E. Septic Tank Materials and Construction. No permit shall be issued for a new septic tank system, or for the replacement of a septic tank in an existing system, unless, in addition to other requirements of this Chapter, it complies with all of the following provisions:
  - 1. Septic tanks shall be constructed of materials approved by the Director in accordance with the following standards: such materials shall not be subject to excessive deterioration or decay, and shall be watertight. Each such tank shall be structurally designed to withstand all anticipated earth or other loads, and shall be installed level and with a concrete bottom, unless the Director, for good cause, allows a different bottom material that is equally impervious.
  - 2. Septic tank covers shall be able to support three hundred (300) pounds per square foot.
  - 3. Soil around septic tanks shall be hard-compacted.

<sup>&</sup>lt;sup>2</sup> 1 cubic foot equals 7.5 gallons.

- 4. All connections from buildings to septic tank shall be made in accordance with the most recent edition of the Uniform Plumbing Code as may be amended from time to time, and the County Buildings and Construction Ordinance (Title 18), as may be amended from time to time.
- 5. 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 septic tank systems installed unless manhole risers are otherwise provided for. The riser must extend at least six inches above the ground and be capped so as to be gastight unless another means of effectively locating the septic tank is approved by the Director. A back pressure relief valve rather than cap is recommended. The cleanouts shall be designed to:
  - a. Prevent the backup of sewage into the residence should there be a malfunction of the system.
  - b. Provide easy access clean out of the sewer line both in the direction of the house and the direction of the tank.
  - c. Provide a simple, effective means of locating the septic tank for periodic maintenance. (See Diagram A in Appendix C incorporated by this reference).

#### 6. Manhole Risers:

- a. Septic tanks in areas to be surfaced by cement, asphalt or similar materials shall have a manhole access brought to grade or if the septic tank is three feet or deeper from surface grade.
- b. Manhole risers of a size sufficient for removal of the tank manhole covers shall be installed for each compartment of septic tanks serving multiple dwellings, hotels, motels, commercial, industrial and institutional uses.
- 7. Poured-in-place concrete tanks shall comply with the following specifications:

Base:

Six inches thick with No. 4 steel reinforcing bars at 24" (twenty-four (24) inches), or center, both ways.

Walls:

Six inches thick with No. 4 steel reinforcing bars at twenty-four (24) inches), on centers, both ways (centered in wall).

Interior walls shall be sealed with a water tight material.

Cover:

Four inches thick with No. 4 steel reinforcing bars at nine inches, on centers, both ways.

Concrete:

Two thousand five hundred (2,500) pounds per square inch compressive strength. Access to each compartment by manhole. Septic tank tee and ells to be installed at time of pour.

8. Redwood tanks shall comply with the following specifications:

Grade: Construction heart or better.

Thickness: two-inch tongue and groove.

Construction details:

Watertight.

Top shall be double thickness four inches.

Nails shall be hot-dipped galvanized.

Septic tank ells and tees shall be grouted in.

Bottom shall be concrete, six inches thick and reinforced as provided in (7) supra (base).

Top shall be provided with manholes or other facility for access to each compartment, for pumping purposes.

9. Hollow concrete block tanks shall comply with the following specifications:

Blocks shall be concrete filled.

Base:

Six inches thick with No. 4 steel reinforcing bars at twenty-four (24) inches, on centers, both ways.

Walls:

Eight inch block, concrete, filled with No. 4 steel reinforcing bars at twenty-four (24) inches, on centers, both ways (centered in wall).

Cover:

Solid concrete, four inches thick with No. 4 steel reinforcing bars at nine inches, on centers, both ways.

Concrete:

Two thousand five hundred (2,500) pounds per square inch compressive strength. Access to each compartment by manhole. Interior walls shall be sealed with a watertight material.

- 10. Metal septic tanks shall not be permitted.
- 11. Septic tanks shall have two compartments, separated by a baffle. The baffle shall be located two-thirds of the length of the tank from its inlet end. An opening in the baffle shall be located at a point which is one-half the height of the tank from its inside bottom to its outlet water level and sized at least as large as the inlet opening on the tank. A two-inch by six-inch air vent between tank compartments shown in Diagram B of Appendix C (incorporated by this reference) must be installed.
- 12. The grade of the house sewer to the septic tank shall be as specified by the Monterey County Buildings and Construction Ordinance (Title 18).
- 13. A septic tank of one thousand (1,000) gallon liquid capacity, and of either concrete or redwood construction, shall also comply with the design, dimensions, and other construction details shown on Diagrams A and B of Appendix C (incorporated by this reference) respectively. Septic tanks which deviate from the standards and specifications set forth in subdivisions D and E of this Section, or from Diagrams A or B of Appendix C (incorporated by this reference), may be allowed by the Director if any such deviation is reasonably necessary in a particular case and such deviation will not result in a less effective tank. All septic tanks must be designed to remove nearly one hundred (100) of settleable solids and should provide a high degree of anaerobic decomposition of colloidal and soluble organic solids.\* In any such case the Director may require that the applicant submit plans and specifications of such tank prepared and signed by a California licensed sanitary or civil engineer.
- 14. All approved septic tanks must be installed according to manufacturers recommendations.
- 15. The septic tank must be accessible for pumping.
- 16. Septic tank design must allow access for inspection and cleaning.
- 17. Where pumping is employed to convey effluent to a disposal field, the pump shall be installed in a compartment separate from the outlet compartment of the septic tank. The pump chamber shall be

- sized so as to allow for a holding capacity equivalent to a minimum of one day's flow.\* 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.\* An adequate alarm system must be installed in case of pump or power failure.
- 18. Inline effluent filters must be installed on all septic tank systems that are newly constructed, repaired or replaced. The effluent filter will greatly reduce or eliminate solids carry over into the drainfield, thus increasing the life of the drainfield. The effluent filter must be approved by the Director prior to installation. Those effluent filters that are approved are on file with the Director.
- 19. All septic tanks must be designed so as to be water tight.
- 20. All septic tanks to be installed must be approved by the Director. Besides the septic tanks referenced in 7, 8 and 9 of Section 15.20.070E, other septic tanks such as fiberglass, Acrylonitrile-Butadiene-Styrene (ABS), polyethylene, etc., may be considered for approval. In order to receive approval the manufacturer must submit the following:
  - a. A letter requesting approval for the specific size of septic tanks or other materials.
  - b. A certificate of approval from the International Association of Plumbing and Mechanical Officials (IAPMO).
  - c. Plans of the septic tank(s) for which approvals are being requested.
  - d. A letter from a mechanical engineer or civil engineer stating that the septic tanks(s) conform to Monterey County Code Chapter 15.20.
  - e. A statement that the septic tank is designed to be water tight from a State certified independent testing company/laboratory, which has confirmed its water tightness.
  - f. A review fee pursuant to Chapter 1.40 of the Monterey County Code (Monterey County Fee Resolution).
- F. Disposal Fields for Dwelling Units. No permit shall be issued for a new septic tank system, or for the replacement of a disposal field in an existing system, unless, in addition to the other requirements of this Chapter, it complies with all of the following provisions:
  - 1. The disposal field shall be installed in undisturbed earth. Installation in fill material shall not be permitted.
  - 2. The seepage area of the disposal field shall not be less than one thousand (1,000) square feet, or the number of square feet produced by calculating the formula:

number of persons to be served x 75

gallons per person per day

3/10 gallons per square foot per day

whichever is greater, regardless of the volume of rock installed.

3. Some areas of the County of Monterey have special drainfield criteria in formulating the size and type of drainfields. Those areas are to be on file with the Director.

For the purpose of calculating the number of persons to be served in said formula, the following table shall be used:

Table E

#### **Dwelling Unit Average Occupancy Table**

1 (one) to 3 (three) bedrooms	4 (four) persons
4 (four) or more bedrooms	add 1 (one) person per bedroom in excess of 3 (three)
	bedrooms

- 4. The minimum required square footage (one thousand (1,000) square feet) of the seepage area of the disposal field may be obtained by one of the following methods which are set forth only as examples:
  - a. A disposal field three feet wide, eighteen (18) inches) deep, and three hundred thirty-four (334) feet in total length; or
  - b. A disposal field having a trench at least five feet deep below the drain line, and one hundred (100) feet long; or
  - Three seepage pits, each thirty-six (36) inches in diameter and thirty-five (35) feet effective depth; or
  - d. A disposal field three feet wide, three feet deep, one hundred eleven (111) feet in total length.

Whatever method is used, the excavation 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. straw), shall be used to cover the rock, and there shall be a minimum backfill of one foot of earth over the building paper.

- 5. The required seepage areas of the disposal field shall be calculated as follows based on \*usable permeable soil layers\*:
  - a. Bed systems: The square footage shall solely be calculated based on the bottom of the bed.
  - b. Deep Trench: The square footage shall be based on the effective trench side walls.
  - c. Shallow Trench: The square footage shall be based on the effective trench side walls. If the width of the trench is three feet or wider the bottom of the trench may be counted also. If the effective trench depth is less than two feet, then only the bottom area shall be counted.
  - d. Seepage Pits: The calculation of the square footage is based on the effective depth of surface wall of the pit. This is calculated by the following formula: 3.14 x diameter of pit x depth of pit. (See Diagram E, Appendix C incorporated by this reference.)
- 6. Perforated pipe three inches or more in diameter shall be used in the field disposal line. Drain pipe shall be Acrylonitrile-Butadiene-Styrene (ABS) (one thousand (1,000) pound minimum crush), with National Sanitation Foundation (NSF), American Society for Testing and Materials (ASTM), or equivalent approval.
- 7. Pipe in the drain field shall have a slope of not more than two inches per one hundred (100) feet and shall be carefully placed to ensure even distribution of effluent along the trench. The minimum distance between adjacent drain field lines (sidewall to sidewall) shall be at least eight feet undisturbed earth or twice the effective depth of the trench, whichever is greater.\* The minimum distance between the endwalls of drain fields shall be a minimum eight feet of undisturbed earth. The minimum distance between the septic tank and the beginning of the disposal field shall be six feet. The minimum distance between seepage pits shall be twenty (20) feet.\* Individual trench lines shall not be over one hundred (100) feet in length and shall be capped at the end. Minimum cover over the trench pipe is fourteen (14) inches (two inches) of covering of rock/gravel and untreated building paper/straw and twelve (12) inches of backfill.

- 8. Disposal fields shall also comply with the applicable design and construction details shown in Diagrams D, E, of Appendix C (incorporated by this reference) unless, for good cause, in a particular case, the Director allows any deviation therefrom. Any disposal field deviating from such applicable design and construction details in Appendix C (incorporated by this reference) shall be equally effective.
- 9. Diversion valves or similar device shall be installed when there are two or more separate disposal fields that receive effluent from the same septic tank. (See Diagram F Appendix C, incorporated by this reference.)
- 10. If the septic tank or disposal 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 septic tank system will not adversely affect the structural integrity of the vehicle traffic area.
- 11. Properly constructed distribution boxes shall be installed with equalization devices on each outlet of the distribution box to maintain equal flow to each trench. The equalization device must be approved by the Director. Distribution boxes shall be placed outside the leaching area to insure that settling does not occur.
  - a. When a distribution box is installed or required, it shall be placed on a level three inch concrete pad equal to or larger than the distribution box.
  - b. A concrete pad may not be required when, for good cause, in a particular case, the Director determines one is not required.
  - c. A concrete pad which deviates from the standards in Subsection 11a of this Section may be allowed by the Director if any such deviation is reasonably necessary and such deviation will not result in a less effective pad. The Director may require that the applicant submit plans and specifications of such pad prepared and signed by a California licensed sanitary or civil engineer.
  - d. Distribution boxes shall be accessible. Therefore, they must either be placed at a shallow depth or constructed with risers.
- 12. In the event the distance between the septic tank and the disposal field exceeds fifty (50) feet, a two-way cleanout shall be installed, and one additional two-way cleanout shall be installed at a minimum of every one hundred (100) feet.
- 13. New septic tank systems are prohibited in areas where the natural ground slope exceeds thirty (30) percent unless a variance is granted by the California Regional Water Quality Control Board. The California Regional Water Quality Control Board will review the variance as follows:
  - a. The California Regional Water Quality Control Board review criteria are as follows:
    - 1) Possible breakout of the sewage on the slope that is in excess of thirty (30) percent.
    - Possible adverse impacts to watercourses.
  - b. Variance Procedure:\*
    - Applicant shall consult with the Director to determine possible feasibility, from an on-site visit and review, of the proposed development. If the proposal appears feasible pending specific engineering and technical studies, then the applicant may proceed with engineering and technical studies, at the applicant's expense, at the direction of the Director.
    - 2) The report: shall address stability of structures on said parcel and any affected adjoining parcels; must demonstrate that leachate will remain subsurface; must certify that installation of the septic system will not contribute to failure of the slope causing earth

movement or landslide; and, must certify that installation of the septic system will not adversely affect water resources.

- 3) The study should include the following data and information:
  - a. Graphic logs showing geologic structure and stratigraphy.
  - b. A detailed grading map, including stabilization or mitigation plans during the development of the slope.
  - c. 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.
  - d. Results of laboratory soil sampling, particularly of slope materials.
  - e. Formulas and methods used for slope stability analysis, including computer printout explanation, if applicable, for all parameters used in equations (and how they were derived). All assumptions shall be stated. Enough information should be provided to allow the reviewer to repeat the calculations.
  - f. An appropriate seismic analysis for use in pseudostatic or dynamic stability calculations.
  - g. Appropriate factors of safety shall be applied. Reference must be provided to support the slope analysis method.
  - h. Analysis of impact to slope stability due to effluent and irrigation water.
  - i. Information on how critical failure path was determined and what conditions were applied to make the determination.
- 4) Applicant shall complete an application form from the California Regional Water Quality Control Board (RWQCB) titled "Report of Waste Discharge" with all supporting site specific engineering studies and submit this to the Director in duplicate. If the report is determined by the Director, to support the granting of a variance, then it will be submitted to the RWQCB by the County for review and determination.
- 14. Leach Fields. When interconnected leach fields in series are used on sloping ground, the following additional, special design and construction 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 so as to minimize variations in trench depth.
  - c. Earth backfill over the rock and untreated building paper, or other approved material in the excavation may be increased above the normal minimum of one foot, so as to accommodate the slope of the ground or other compelling reasons if approved by the Director.
  - d. Adjacent trenches shall be connected with a relief line, or a drop box arrangement, in such a manner that each trench will be completely filled with sewage to the full depth of the rock before it flows to the next succeeding trench.
  - e. Trench-connecting relief lines shall be three inches or larger, with tight joints, and with direct connections to the drain lines in adjacent trenches or to a drop box.
  - f. Relief lines shall be so constructed as to insure an undisturbed block of earth between trenches.

    Trenches which contain relief lines shall be dug no deeper than the top of the rock fill of the

- preceding absorption trench. Relief lines shall rest on undisturbed earth, and backfill shall be carefully tamped.
- g. The intake line and discharge line in each individual absorption trench shall be placed as far from each other as is practicable, in order to prevent short-circuiting.
- h. The overflow to the first relief line shall be at least four inches lower than the septic tank outlet.

  The foregoing description is depicted in Diagram G of Appendix C, incorporated by this reference.
- 15. Seepage Pits. Seepage pits shall be utilized only after careful consideration of site suitability. When in the opinion of the Director, it will not constitute a hazard to health and sanitation, and there is no likelihood of contaminating underground waters, and soil conditions are suitable for it, the Director may permit the use of seepage pits with a septic tank. When the Director permits such use, in addition to requirements set forth elsewhere in this Chapter, each such pit shall comply with the following requirements:
  - a. The effective absorption area of the pit shall be calculated as the side area thereof, below the inlet, exclusive of any hardpan, rock or clay formation, or fill material. For example:
    - 1) Each foot of depth of a pit thirty-six (36) inches in diameter has a side area of nine and one-half square feet and a volume of fifty three (53) gallons.
    - 2) Each foot of depth of a pit forty-eight (48) inches in diameter has a side area of twelve and one-half (12½) square feet and a volume of ninety-four (94) gallons.
  - b. The minimum diameter of the pit shall be thirty-six (36) inches.
  - c. The distance between adjacent pits shall be at least twenty (20) feet, measured from the adjacent side walls of the adjacent pits.
  - d. The pit shall be filled with clean rock of a diameter not less than one and one half 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.
  - e. 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.
  - f. The bottom of the pit shall be at least ten (10) feet above groundwater, or fifteen (15) feet above groundwater in the case of a community subsurface disposal system.\*
  - g. Seepage pits shall have the wastewater distributed evenly between the pits by means of a distribution box.
- 16. The following requirements will be in effect in areas with documented nitrate contamination. Nitrate contamination will be considered to be existing when water sources, within an area of influence as determined by the Director, have nitrate concentrations at or above twenty-five (25) mg/l. This determination can be appealed to the Board of Supervisors pursuant to Section 15.20.130.
  - a. In areas of the County with documented nitrate contamination, setbacks from disposal fields to wells shall be maximized to the extent property constraints allow for such increased setbacks.
  - b. In areas of the County with documented nitrate contamination, shallow leach fields shall be required for lots of record created prior to March 4, 1999, unless proven infeasible.
  - c. In areas of the County with documented nitrate contamination, seepage pits shall be prohibited for lots of record created prior to March 4, 1999, unless standard trench systems are proven infeasible.

- d. In areas of the County with documented nitrate contamination, shallow leach fields shall be required for lots of record created after March 4, 1999, and seepage pits shall be prohibited for new subdivisions. The shallow leachfield shall be no more than five feet below the discharge line and in no case shall the bottom of the leachfield be ten (10) feet below natural grade.
- G. Disposal Field Requirements for Multiple Dwellings, Hotels, Motels, Commercial, Sanitary Industrial and Institutional Uses. All industrial on-site discharges must submit a Report of Waste Discharge and any required fee to the Regional Water Quality Control Board. Operation of such discharge shall not commence until RWQCB approval is received and conditions of approval are met.

Where subsurface disposal is proposed for multiple dwellings, commercial, industrial, and institutional uses and the use proposed will generate sewage volumes in the excess of that expected from typical residential usage, the Health Department will review the proposal in terms of its compliance with Water Quality Control Plan, Central Coastal Basin. For commercial and institutional systems, pretreatment may be necessary if wastewater is significantly different from domestic wastewater.\* The following factors will be taken into account in determining the projects suitability:

- 1. Depth to groundwater.
- 2. Confined or unconfined nature of aguifer.
- 3. Size of watershed.
- 4. Impact of total area build out.
- 5. Percolation test results.
- 6. Ground slope.
- 7. Presence of water courses, lakes, reservoirs or ocean.
- 8. Sheet water problems.
- 9. 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.
- 10. Possibility of project being sewered in the foreseeable future.
- 11. Location of all recorded easements.
- 12. Capacities shall accommodate build-out population.\*
- 13. Community systems should be designed to accommodate the following items:\*
  - a. Design should consider contributions from infiltration throughout the collection system.
  - b. Septic tanks should 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.
- 14. Where the proposed project site is suitable for the proposed use, volume limits will be placed on the project based on compliance with the RWQCB Basin Plan criteria.
- 15. Disposal field sizing must be based on daily peak flow and will be derived from the following formula:\*

Maximum daily volume

0.3 gallons per square foot per day

16. Disposal field standby areas will be required based upon the results of percolation tests according to the following:

#### **Absorption Trenches**

#### (3' to 20' depth)

Percolation Rate (minutes/inch)	Increment of Initial System Sizing (%)
5 or less	200
6-10	300
11-15	400
16-25	500
26-35	600
36-45	700
46-59	800
60+	Not Allowed

#### **Seepage Pits**

#### (20' + depth)

Percolation Rate (minutes/inch)	Increment of Initial System Sizing (%)
3 or less	200
4 - 6	300
7 - 10	400
11 - 15	500
16 - 20	600
21 - 25	700
26 - 29	800
30 +	Not allowed

- 17. The original system plus one standby increment of the disposal field must be installed initially. The expansion area must be set aside and protected from all uses except future disposal field repair and replacement. A diversion device approved by the Director must be installed so that the disposal fields can be used alternately. Inspection risers for the disposal field will be required. They must extend from the bottom of the disposal field or seepage pit to at least one foot above the surface of the ground and be capped.
- 18. Distance between disposal fields shall be a minimum of eight feet, or twice the depth of the trench, whichever is greater.\* The distance between seepage pits shall be at least twenty (20) feet.\* disposal field design shall spread the effluent so as to prevent subsurface effluent mounding.
- 19. Discharge should not exceed forty (40) grams (three hundred (300) gallons of untreated sewage) per day total nitrogen, on the average, per acre of total development, unless Wastewater Management Plans are adopted and subsequently approved by the Regional Water Quality Control Board. \*
- 20. Grease interceptors or other device, approved by the Director, which removes grease from the waste stream, must be installed in food facilities where grease is generated. Grease traps under pot sinks are not acceptable. Sizing of grease interceptors or approved device must be done by a civil or sanitary engineer or other licensed professional.

- H. Alternative Methods of Treatment and Disposal For Repairs of Existing Septic Tank Systems.
  - 1. Resources to conduct a monitoring program required: The Director must first have the resources to conduct a monitoring program before considering any alternative systems.\* When in the opinion of the Director the resources are available to conduct a monitoring program, the Director may then consider alternative systems. Upon consideration of alternative systems, the Director must first formulate and place on file a monitoring program. Costs of monitoring, reviewing the monitoring protocol, reviewing the monitoring reports, and any site visits will be reimbursed to the Director by the property owner or authorized representative.
  - 2. Latest and best sanitary engineering, technology and design criteria, and RWQCB Guidelines must be used: When the Director considers other methods of sewage treatment and disposal such as aerobic treatment, sand filters, evapotranspiration systems, or mound systems, the latest and best sanitary engineering, technology and design criteria along with any guidelines that the Regional Water Quality Control Board may have such as "Guidelines for Evaporation Systems" or "Guidelines for Mound Systems" must be used. A licensed engineer or Registered Environmental Health Specialist competent in sanitary engineering must design the system.
  - 3. For lots which do not meet Basin Plan criteria: When the Director considers alternative methods of sewage disposal for new septic tank systems for lots which do not meet Basin Plan criteria, then the Regional Water Quality Control Board must review and approve the design. The Applicant shall complete an application form from the California Regional Water Quality Control Board titled "Report of Waste Discharge" with all supporting site specific engineering studies and submit this to the Director in duplicate. If the report is determined to support the granting of a variance, then it will be submitted to the California Regional Water Quality Control for their review and determination.

#### 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 septic tank systems, 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. Disposal field inspection pipes with caps can be installed to monitor the level of the effluent level in the disposal field(s).
- B. When feasible, a double disposal field, with a diversion valve, should be installed, so that the disposal fields can be used alternately. Such an installation, with proper use, will extend the life of the drainage system and postpone the necessity of installing additional drainage at some future time. For example, if a permit requires one thousand (1,000) square feet of disposal field, an applicant could have two thousand (2,000) square feet installed, making sure, however, that they are sufficiently far apart so as not to affect each other. Such a double installation could be accomplished with all types of disposal fields. Disposal fields should be alternated seasonally (e.g. every six months, annually, etc.) or when disposal field inspection pipes reveal a high water level.
- C. 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.
  - a. 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.\*

- b. Garbage grinders are not recommended for use in homes with septic tanks.\*
- D. If scum and sludge are allowed to accumulate to a volume sufficient to flow into the disposal field or seepage pits, failure of the system will occur. Correction most often involves the installation of a new disposal field. A reliable septic tank pumping contractor should be engaged when a tank needs inspection or pumping.
- E. It is recommended that users of septic tank systems keep records as to when the system was installed and the dates when it was inspected and the septic tank pumped.
- F. Nutrient and heavy metal removal should be facilitated by planting ground cover vegetation over shallow subsurface disposal 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.\*
- G. Plants downstream of the leaching area may also be effective in nutrient removal.\*
- H. Subsurface disposal systems should have a slightly sloped finished grade to promote surface runoff.\*
- I. Work should be scheduled only when infiltrative surfaces can be covered in one day to minimize windblown silt or rain clogging the soil.\*
- J. In clayey soils, work should be done only when soil moisture content is low to avoid smeared infiltrative surfaces.\*
- K. Bottom and sidewall areas should be left with a rough surface. Any smeared or compacted surfaces should be removed.\*
- L. 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.\*
- M. Surface runoff should be diverted around open trenches/pits to limit siltation of the bottom area.\*
- N. Prior to backfilling, the distribution system should be tested to check the hydraulic loading pattern.\*
- O. Risers to the ground surface and manholes should be installed over the septic tank inspection ports and access ports.\*
- P. The disposal field should include an inspection pipe to be used to check the water level.\*
- Q. Water conservation and solids reduction practices are recommended.\*
- R. Grease and oil should not be introduced into the septic tank system. Bleach, solvents, fungicides and any other toxic material should not be poured into the septic tank system.\*
- S. Reverse osmosis unit backwash should not be discharged to the septic tank system.
  - Off-site (factory regeneration) practices are recommended for water softeners.\*
- T. 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 a waste water system installation.
- U. If on-site water softener regeneration is necessary, minimum salt use in the water softeners is recommended. This can be accomplished by minimizing regeneration time or limiting the number of regeneration cycles.\*

(Ord. 4055, 2000)

#### 15.20.090 Abandoned sewage disposal facilities.

Every cesspool, septic tank, and 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.

(Ord. 4055, 2000; Ord. 2731, 1981)

#### 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 Director, for checking, its plans for a sewer system to be constructed by or for it. Such plans shall be submitted to the Director, together with a fee as set forth in Chapter 1.40 of the Monterey County Code, and the Director 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.

(Ord. 4055, 2000; Ord. 2731, 1981)

#### 15.20.110 Evaluation reports.

When the business of the Monterey County Health Department will permit it, the Director is authorized, but not required, to inspect the septic tank system, or any part thereof, of any person, upon the request of any public or private hosing finance or mortgage guaranteeing agency or institution for the purpose of evaluating the adequacy or condition of such system and rendering his or her written opinion thereon, insofar as it is feasible for him or her to ascertain it. Prior to making any such evaluation and report a fee as set forth in Chapter 1.40 of the Monterey County Code shall be submitted by the applicant.

When the business of the Monterey County Health Department will permit it, the Director is authorized, but not required to inspect the property or site of any person upon request to make visual evaluation of potential feasibility of property on site for septic tank system usage and rendering his or her written opinion, insofar as it is feasible for him or her to ascertain it for usage by any governmental bodies, such as California Coastal Commission or the Monterey County Planning Commission, or Board of Supervisors, in their decision process. Prior to making such evaluation and report, a fee shall be submitted by the applicant as set forth in Chapter 1.40 of the Monterey County Fee Resolution.

(Ord. 4055, 2000; Ord. 2731, 1981)

#### 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, pond, reservoir, swamp, ocean, water supply or water system.

- B. 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 A, incorporated by this reference.
- C. 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 or noisome waste matter, unless a permit to do so, pursuant to State or county law, regulation, or ordinance, has been obtained.
- D. 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 of at an approved disposal site at least every seven days.
- E. 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 Director granting or denying any permit hereunder may, within ten (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 fifteen (15) days thereafter, set the time for public hearing before the Board within thirty-five (35) days thereafter, and shall give notice of the time and place thereof to the applicant at least fifteen (15) days prior to said hearing. Said hearing may be continued from time to time not exceeding sixty (60) days. Based upon the testimony of the witnesses and other evidence presented at said hearing the Board of Supervisors shall, within ten (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 Director.

(Ord. 4055, 2000; Ord. 2731, 1981)

#### 15.20.140 Administration and enforcement—Right of entry.

The Director or the Director's authorized deputy(ies), assistant(s), or designee(s), shall administer and enforce the provisions of this Chapter. They shall have the right to enter any building or premises at all reasonable times to make an inspection to enforce any provision of this Chapter. If such building or premises is occupied the Director, or authorized deputy, assistant, or designee shall first present proper credentials and request entry. If such building or premises is unoccupied the Director, or authorized deputy, assistant, or designee, 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 Director, or authorized deputy, assistant, or designee shall have recourse to such remedies as are provided by law to secure entry.

(Ord. 4055, 2000; Ord. 2731, 1981)

### 15.20.150 Penalty.

Repealed.

(Ord. 3659 § 8, 1993)

#### 15.20.160 Indemnification.

Each permit issued 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.

(Ord. 4055, 2000)

#### 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.

(Ord. 4055, 2000)

# 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.

(Ord. 4055, 2000)

Appendix A

(Reserved)

**Appendix B** 

(Reserved)

Appendix C

(Reserved)