

Section 4 Criteria for All OWTS

4.1 Purpose of OWTS

- A. New and replacement OWTS shall be located, designed, constructed, and operated in a manner to ensure that sewage effluent does not surface at any time, that is protective of public health, safety and the environment and that percolation of effluent into the soil will not adversely affect beneficial uses of the waters of the State of California.
- B. New and replacement OWTS and the repair of an OWTS shall comply with the requirements of this OWTS Manual.

4.2 Prohibitions

- A. The use of holding tanks is prohibited. However, the use of holding tanks may be authorized for limited circumstances as follows:
 - 1. to abate an existing nuisance or health hazard; or
 - 2. the proposed use is within a sewer service area, sewers are under construction and completion is expected within two years and the sanitation district assumes responsibility for maintenance of the tanks; or
 - 3. it is for use at a campground or similar temporary public facility where a permanent sewage dispersal system is not necessary or feasible and maintenance is performed by a public agency; or
 - 4. for a public service entity (for example, volunteer fire department) when it cannot otherwise install sanitary facilities in a building.
- B. The following are not authorized:
 - 1. Cesspools of any kind or size;
 - 2. OWTS receiving a projected flow over 10,000 gallons per day;
 - 3. OWTS that utilize any form of effluent disposal that discharges on or above the post installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond;
 - 4. OWTS on slopes greater than 30 percent without a slope stability report approved by a registered professional;
 - 5. Decreased leaching area for dispersal systems using a multiplier less than 0.70;
 - 6. OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections;
 - 7. OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks;
 - 8. Separation of the bottom of dispersal system to groundwater less than 2 feet;
 - 9. Separation of the bottom of a seepage pit to groundwater less than 10 feet;

10. Installation of new or replacement OWTS where public sewer is available. Section 2.0 has additional details on this topic;
11. Public Water Wells. New or replacement OWTS with horizontal setbacks less than any of the following:
- 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet in depth;
 - 200 feet from a public water well where the depth of the effluent dispersal system exceeds 10 feet in depth;
 - Where the effluent dispersal system is within 600 feet of a public water well and exceeds 20 feet in depth, the horizontal setback required to achieve a two-year travel time for microbiological contaminants shall be evaluated. A qualified professional shall conduct this evaluation. However, in no case shall the setback be less than 200 feet.

Table 4.1
Minimum Horizontal Setbacks from Public Water Wells

Depth of Dispersal System	Horizontal Setback
Less than or equal to 10 feet	150 feet
Greater than 10 feet	200 feet
Greater than 20 feet	200 foot minimum 2 year travel time within 600 feet

12. Public Water Systems. New or replacement OWTS with minimum horizontal setbacks less than any of the following:
- Where the effluent dispersal system is within 1,200 feet from a public water system's surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.
 - Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water system's surface water intake point, within the catchment area of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.

Table 4.2
Minimum Horizontal Setbacks from Public Water Systems

Distance From Public Water Intake	Dispersal System Standard
Less than 1,200 feet	Greater than or equal to 400 feet water source ¹
Equal to or greater than 1,200 feet and less than 2,500 feet	Greater than or equal to 200 feet water source ¹

¹ water source is the high water mark of the reservoir, lake or flowing water body.

4.3 Mitigations to Prohibitions

- A. To mitigate prohibition 4.2.B.4 (slopes over 30 percent), a slope stability report, completed by a RCE or registered geotechnical engineer, shall be submitted to justify OWTS on slopes over 30 percent. The slope stability report shall be reviewed and approved by Permit Authority.
- B. To mitigate prohibition 4.2.B.6 (periodic monitoring), OWTS utilizing supplemental treatment components shall be enrolled in the County’s Operational Permit Program, which requires monitoring and maintenance of the system.
- C. To mitigate prohibition 4.2.B.8 and 4.2.B.9 (vertical separation to groundwater), the owner shall file a Notice of Intent with the appropriate RWQCB for waste discharge requirements, waiver of waste discharge requirements or a conditional waiver of waste discharge requirements. For the North Coast RWQCB, apply under Order No. R1-2017-0039.
- D. To mitigate prohibition 4.2.B.11 and 4.2.B.12 (horizontal distances from water sources):
 - 1. Replacement OWTS shall utilize supplemental treatment and other mitigation measures to meet the treatment standards in Table 4.3, unless the Permit Authority finds that there is no indication that the previous system is adversely affecting the public water source, and there is limited potential that the replacement system could impact the water source based on topography, soil depth, soil texture, and groundwater separation.
 - 2. New OWTS shall meet the horizontal separation to the greatest extent practicable and shall utilize supplemental treatment to achieve the Table 4.3 standards and any other mitigation measures prescribed by the Permit Authority.

Table 4.3
Treatment Standards for New OWTS Not in Conformance with Horizontal Separation Requirements

Constituent	Standard
Total Suspended Solids	30 milligrams per liter as 30-day average
Fecal Coliform	200 Most Probable Number (MPN)
Soil Depth	Greater than 3 feet
Depth to Groundwater	Greater than 3 feet
Soil Cover over Dispersal System	12 inches

4.4 OWTS Designer by System Type

- A. The type of OWTS or OWTS components listed in Table 4.4 shall be designed by the corresponding designer.
1. A commercial/institutional, experimental, alternative, or a standard OWTS shall be designed by a qualified consultant.
 2. A replacement dispersal area or field shall be designed by a qualified consultant.
 3. A replacement septic tank shall be designed by a qualified consultant or licensed contractor.
 4. A repair shall be designed by a qualified consultant, licensed contractor or land owner.
 5. A repair or modification of an existing OWTS shall be designed by the professional listed in Table. 4.4.

**Table 4.4
OWTS Designer by System Type**

Type of System	Designer
Commercial/Institutional Experimental OWTS Alternative OWTS Standard OWTS Replacement Dispersal Area/Field OWTS with Easements	Qualified Consultant
Replacement Septic Tank	Qualified Consultant Licensed contractor (A, C-42, C-36)
Repair	Qualified Consultant Licensed contractor (A, C-42, C-36), Homeowner/builder

4.5 OWTS Sizing Criteria Wastewater Flows

- A. Residential wastewater flows used for design of OWTS for new single family residences, second units, guest houses and other detached buildings shall be based on the number of bedrooms multiplied by a factor of 120 gallons per day per bedroom for the first five bedrooms, plus 60 gallons per day for each additional bedroom, as indicated in Table 4.5.
- B. The design flows for a primary residence and detached accessory structures (second unit and/or guest house) shall be determined independently, regardless of whether the flows are treated separately or combined in a single OWTS.

**Table 4.5
Wastewater Design Flows for
Single Family Residences and Second Unit**

Number of Bedrooms	Design Flow (gallons per day)
1	120
2	240
3	360
4	480
5	600
greater than 5	+ 60 per bedroom

- C. Wastewater flows used for the design of OWTS for multiunit residences and non-residential projects shall be developed based on full consideration of projected activities, occupancy, and facilities. Table 11.1 provides guidelines for use in estimating design wastewater flows. Wastewater flows shall be determined by:
1. Table 11.1 for those listed facilities; or
 2. Appropriate literature references (for example US/EPA) for the type of facility proposed; or
 3. Documented wastewater flow monitoring data for a comparable facility. Additionally, the Director of the Permit Authority may consider adjustment to the criteria listed in Table 11.1 for specific facilities based upon documented technical information to support the proposed design flow estimate.
- D. Reductions of wastewater design flows up to 20 percent for dwelling units constructed prior to 1998 shall be approved by the Permit Authority Well and Septic Section when each of the following is provided:
1. Low flow devices for toilets, showers and faucets are installed in the structure under permit;
 2. The septic tank shall be fitted with a corrosion-resistant effluent filter approved by the Permit Authority;
 3. The leachfield shall be either:
 - a. a dual leachfield with each half designed at 75 percent of the reduced design flow (either 50 percent or 150 percent additional reserve replacement area must be provided based upon the date the lot was created); or
 - b. a dispersal field using equal distribution. The dispersal field shall be sized based upon 100 percent of the reduced flow.

4.6 OWTS Locations and Off-Site Easements

- A. OWTS shall be constructed, or designed to be placed, on the same legal parcel containing the structure(s) intended to be served by the OWTS.
- B. If an OWTS cannot comply with 4.6.A due to soil or site constraints then legal access to adjacent parcels shall be established through a lot line adjustment or parcel merger.
- C. If an OWTS cannot comply with 4.6.A and 4.6.B then legal access to adjacent parcels shall be established through an easement.

- D. Easements shall be recorded with the County Recorder's office in a form acceptable to County Counsel and the Permit Authority, and shall include:
1. A Grant Deed conveying the easement from the record owners of the burdened parcel to the owners of the parcel to be developed; and
 2. A full legal description and a plat of the easement area prepared by a Licensed Land Surveyor or a RCE whose registration allows surveying; and
 3. All appurtenant easements for access, pipelines, drainage, etc. shall be conveyed in the grant deed; and
 4. Conditions, Covenants, and Restrictions recorded on the deed as follows:
 - a. A statement that the easement shall bind and inure to the benefit of the respective heirs, personal representatives, successors, and assigns of the grantor and grantee and that all specifications of the easement shall pertain to and run with the land;
 - b. A statement that provision of the easement is a public health condition relative to approval of an OWTS permit and that alteration or elimination of the rights and duties without the express written consent of the County of Sonoma may constitute a violation of State and local laws;
 - c. The use of the area of the leachfield easement by the grantor shall be restricted from uses which are incompatible with proper leachfield operation. This shall include structures, vehicular parking, roadways, grading, drainage courses, wells, extensive landscaping, confined livestock or other uses which would disrupt the leachfield;
 - d. The easement shall include the right of the grantee to do all things reasonably necessary to inspect, maintain, repair and/or replace the leachfield;
 5. The grant deed and/or legal description referenced in Sections 4.6.B.1 and 4.6.B.2 shall be reviewed by the County Surveyor's office prior to permit issuance.
- E. Leachfield easements shall be separate and distinct from one another.
- F. An OWTS easement shall not encroach into an area needed for the grantor parcel's OWTS and/or reserve expansion area.
1. The area necessary for the grantor parcel's OWTS and its reserve expansion area shall be based upon codes in effect at the time of the grantee parcel's OWTS easement application.
 2. The grantor parcel's OWTS does not need to be modified unless it is in a state of failure.
- G. Refer to Section 16 Subdivisions and Lot Line Adjustment Requirements for OWTS easement requirements for new subdivisions of property.
- H. An easement grant from one property owner to another shall comply with the following:
1. The grantor parcel and grantee parcel must abut each other.
 2. An unimproved lot will be considered as "abutting" if it is connected to another lot by an easement provided that the lots are in common ownership. (Sonoma County Code, Chapter 7).
 3. An "abutting lot" is also an improved lot connected to another lot by an easement. The lots need not be under common ownership so long as the lot owner has an easement over the abutting lot sufficient for an OWTS.

4. Lots separated by a public road or highway shall not be considered abutting except as provided in (G) above. A public road or highway will satisfy the connection between abutting lots.
 5. An encroachment permit shall be obtained from the Permit Authority prior to conducting work in a public right-of-way.
- I. An easement grant when lots are in common ownership shall comply with the following:
1. A deed of easement from the owner of each parcel burdened by the easement to the owner of the parcel upon which the building will be located:
 - a. locating the easement upon that parcel;
 - b. stating that the easement is a condition of County approval of the OWTS;
 - c. stating that it is the intent of the grantor and grantee that the easement will not merge with the underlying fee interest even if the easement and the fee come into the same ownership, and that the easement is intended to survive severance of the estates and to be included in conveyances to subsequent purchasers;
 - d. stating that the easement shall not be quitclaimed or otherwise modified or destroyed without the written consent of the Director of the Permit Authority, which shall not be unreasonably withheld;
 - e. stating that the easement is appurtenant to the lot upon which the building is to be constructed.
 2. A Declaration of Covenants, Conditions and Restrictions upon each affected parcel which states that:
 - a. the benefits and burdens of the covenants and restrictions shall be binding upon the successive owners of each parcel;
 - b. the burdened parcels (described) shall not be used in any manner which may interfere with or adversely affect the safe operation of the OWTS for the structure of lot (____);
 - c. the OWTS shall be located in the area described in the easement for sewage dispersal executed by _____ on (date) _____ and recorded as Document No. ____ of Official Records of Sonoma County, and which is incorporated by reference (or similar language);
 - d. the covenants contained in the declaration shall only be terminated or modified with the written consent of the Director of the Permit Authority, which shall not be unreasonably withheld. This provision would be applicable when and if the Permit Authority approves some other type of sewage dispersal, and the easements and restrictive covenants are no longer needed.
 3. The affected lots shall be conveyed to a title company or some other "straw man" by a deed which incorporates the easements and the declaration of covenants, and then reconveyed back to the owner.
 4. The property owner shall provide the Permit Authority with a letter indicating the intent to include the easements and covenants in future deeds of the affected parcels.
 5. Another option is the use of a properly constructed "Owner Statement" that provides the following minimum specific items:
 - a. language that prohibits the "removal, alteration or rescinding of the Declaration of Restriction (____) or easement(s) without the written consent of the Director of the Permit Sonoma";

- b. for “Declarations of Restrictions” only, reference must be made within the Owner’s Statement to a “Declaration of Restrictions” that must be recorded concurrently with the Map;
- c. where easements are requested with the existing parcels, the Owner’s Statement must also include the following:
 - i. a reference that specifies that the easement is “between adjacent parcels of same ownership” and that attached hereto as Exhibit ___ is a Grant Deed description of an easement;
 - ii. a reference in both the Owner’s Statement and the easement that the “easement is one that is appurtenant”;
 - iii. a reference on both the Owner’s Statement and the easement that the “doctrine of merger shall not apply.”

4.7 OWTS Construction and Design Applications

- A. Pre-application contact. A prospective applicant is encouraged to contact the Permit Authority before completing and filing an OWTS Application to determine the information and materials required for application filing. The provision of information by the Permit Authority shall not be construed as a recommendation for either approval or disapproval of an OWTS Application. Any failure by the Permit Authority to identify all required information and materials shall not constitute a waiver of those requirements.
- B. Eligibility for filing or withdrawing an OWTS Application. An OWTS application shall only be filed or withdrawn by the owner or easement holder of the site, an authorized agent of the owner or easement holder, or other person with the written consent of the owner or easement holder.
- C. OWTS Application requirements. OWTS Applications shall be filed with the Permit Authority on a county application form. Each OWTS Application shall include all required fees and deposits, all plans and specifications, maps, reports, and other information and materials required by the Permit Authority for the specific type of application, and any other reports necessary to verify compliance with this OWTS Manual.
 - 1. OWTS Construction Applications. The application package for OWTS Construction Applications shall contain the following:
 - a. Application form.
 - b. Application fees.
 - c. Project description.
 - d. Four copies of site plans.
 - e. Two copies of OWTS design reports.
 - f. Soil profile evaluation results per Section 7.
 - g. Soil percolation test results per Section 7, if required.
 - h. Groundwater table determination results per Section 7, if required.
 - i. Variance requests, if applicable.
 - j. For non-standard OWTS only, acknowledgement from the property owner on a county form recognizing and accepting the requirements of the Operational Permit program.
 - 2. OWTS Design Applications. The application package for OWTS Design Applications shall contain the following:
 - a. Application form.
 - b. Application fees.
 - c. Project description.

- d. Two copies of site plans.
 - e. Two copies of the OWTS design reports.
 - f. Soil profile evaluation results per Section 7.
 - g. Soil percolation test results per Section 7, if required.
 - h. Groundwater table determination results per Section 7, if required.
 - i. Variance requests, if applicable.
- D. OWTS Application fees, refunds, and withdrawals. The board of supervisors shall establish a schedule of fees for the processing of OWTS Applications required by this OWTS Manual. The required application fees cover costs for staff time and the other activities involved in processing OWTS Applications. Therefore, no refund due to disapproval or expiration shall be allowed. In the case of a withdrawal, the Permit Authority may refund up to ninety percent of the application fee prior to commencement of the review of an OWTS Application.
- E. OWTS permit applications for emergency repairs. OWTS permit applications for emergency repairs shall comply with the provisions of Section 5.3.
- F. Time Limits of OWTS Applications. The Permit Authority's decision regarding the limitation period of an OWTS application shall be final.
- 1. Expiration of OWTS Application. If a permit is not issued or a vesting certificate application is not filed with the Permit Authority within one year following the date of filing a complete OWTS Construction Application, the OWTS Construction Application shall expire and be deemed withdrawn, without any further action by the Permit Authority. If an approval is not granted within one year following the date of filing a complete OWTS Design Application, the OWTS Design Application shall expire and be deemed withdrawn, without any further action by the Permit Authority.
 - 2. Extension of OWTS Application. The Permit Authority may extend the expiration date of an OWTS Application when such extension is warranted, including but not limited to:
 - a. Correction of an error by the Permit Authority,
 - b. A legal action preventing the review or approval of the application from being completed within the one year time frame,
 - c. Protection of public health or safety, or
 - d. Other circumstances beyond the control of the applicant.
 - 3. Renewal of OWTS Application. After the expiration of an OWTS Application, future consideration by the Permit Authority shall require submittal of a new OWTS Application and associated fees. Where a new OWTS Application is submitted within 180 days following the expiration of the original OWTS Application, the applicant may resubmit the original plans and specifications and the new OWTS Application shall be processed based on the OWTS regulations in effect at the time the expired OWTS Application was initially submitted. No expired OWTS Application shall be renewed in this fashion more than once.
- G. OWTS Application approval. Approval of an OWTS Application shall only constitute compliance with the provisions of this OWTS Manual and shall not mean or imply any other land use entitlement or construction approval.

4.8 OWTS Permits Required

- A. OWTS permit requirements. A valid OWTS permit is required to install, repair, replace, modify, destroy, or abandon any part of a new or existing OWTS except where specified in Section 4.8.F Permit Exemptions. The Permit Authority may approve, conditionally approve or deny a

permit to do any work on an OWTS. The Permit Authority may issue a permit only when all the requirements specified in this OWTS manual for an OWTS are met. The permit may contain conditions that apply to the construction, operation and maintenance of the system. Only OWTS work authorized in the approved plans may be performed unless approved in writing by the Permit Authority. The permit conditions shall be binding upon the property owner and successive property owners for the life of the system.

- B. New OWTS Permit. A new OWTS permit is required for the installation, replacement, modification, destruction or abandonment of any part of a new or existing OWTS not authorized by Sections 4.8.C or 4.8.D.
- C. Replacement OWTS Permit. The following work requires a replacement OWTS permit:
 - 1. The replacement or repair of a septic tank,
 - 2. The replacement or repair of a sump tank,
 - 3. The replacement or repair of a pretreatment unit.
 - 4. The replacement of a dispersal system equal to or greater than 50 percent of the total linear footage of the existing dispersal system.
- D. Repair OWTS Permit. The following work requires a repair permit:
 - 1. The replacement or repair of a leach line or leach line segment, including pipe and trench materials, within an existing leach line trench;
 - 2. The replacement or repair of a dispersal chamber or chamber segment within an existing chamber trench;
 - 3. The replacement or repair of up to 50 percent, on a cumulative basis, of the total linear footage of the existing dispersal system.
- E. Hardship Replacement Permit. Applicants may apply for a hardship replacement permit under the following circumstances:
 - 1. Work would otherwise be considered a replacement permit;
 - 2. Financial constraints prevent compliance with replacement standards;
 - 3. A County Housing Rehabilitating Loan is not available;
 - 4. The landowner's household income is at or below one hundred twenty percent of the current Area Median Income (AMI) established by the U.S. Department of Housing and Urban Development;
 - 5. A hardship replacement permit application shall be submitted to the Permit Authority and shall comply with Section 4.7;
 - 6. Replacement septic tanks shall comply with the septic tank requirements of this OWTS Manual to the maximum extent feasible;
 - 7. Replacement dispersal systems shall comply with this OWTS Manual to the maximum extent feasible;

8. Hardship replacement permits shall be forwarded to the appropriate RWQCB;
 9. Hardship replacement permits shall not be used to authorize building permits for the construction, re-construction, rebuilds, remodel, or work on a structure that would otherwise require an upgraded septic system.
- F. Permit Exemptions. The replacement or repair of the following components or segments is permit exempt:
1. Risers, lids, or covers,
 2. Sanitary tees,
 3. Effluent filters,
 4. Air release, balancing, diversion, and purge valves, valve boxes, or valve vaults,
 5. Distribution boxes,
 6. Performance wells,
 7. Clean outs,
 8. Sump tank pumps, piping, or floats set per original design specifications,
 9. Minor cracks in septic tanks or sumps tanks.
 10. Transmission line from structure to septic tank,
 11. Transmission line from tank to distribution box(es) or diversion valve(s).
 12. Solid transmission lines connection distribution boxes and/or diversion valves,
 13. Hydrojetting.
- G. Compliance with OWTS permit. All work for which an OWTS permit is issued shall be done in compliance with the approved plans and specifications and the recommendations of required reports. The approved plans and specifications shall not be changed without the written approval of the Permit Authority.
- H. Revisions to OWTS Permit. Proposed revisions to the approved plans and specifications shall be submitted to the Permit Authority in writing, together with all necessary technical information and design details. A proposed revision shall be approved only if the Permit Authority determines that the modification complies with the provisions of this OWTS Manual.
- I. Time Limits of OWTS permit. The Permit Authority's decision regarding the limitation period of an OWTS permit shall be final:
1. Expiration of OWTS Permit. Every permit issued by the Permit Authority under the provisions of this section shall expire by limitation three years from the date of permit issuance. The Permit Authority may limit a permit to a lesser time period when necessary to abate dangerous or substandard conditions.
 2. Extension of OWTS Permit. The Permit Authority may extend the expiration date of a permit when such extension is warranted, including but not limited to:

- a. Correction of an error by the Permit Authority,
 - b. A legal action preventing the permitted work from being completed within the three year time frame,
 - c. Protection of public health or safety, or,
 - d. Other circumstance beyond the control of the permittee.
3. Renewal of OWTS Permit. Before any work can commence or recommence on any expired permit, or permit to legalize a violation, a new permit shall first be obtained. The new permit shall be obtained for all work necessary to finish the project including work already completed that has not been previously inspected and approved by the Permit Authority.
- a. Any new permits issued to recommence work started under an expired permit will be based on the OWTS regulations in effect at the time the original expired permit was issued.
 - b. Any new permits issued to commence work under an expired permit shall be based on the OWTS regulations in effect at the time of the original expired permit if the new permit application is submitted no more than six years from the date the original permit issuance.
 - c. Any new permits issued to commence work under an expired permit shall be based on the OWTS regulations in effect at the time of the new permit application if the new permit application is submitted more than six years from the date of the original permit issuance.
 - d. Any new permits issued to legalize a violation shall be governed by the OWTS regulations in effect at the time of the new permit application.

4.9 OWTS Design Report and Site Plan Requirements

- A. The OWTS design report shall include, at a minimum, the following:
1. The OWTS type based on appropriate supporting soil and site evaluation results.
 2. Complete description of the wastewater treatment and dispersal processes.
 3. Application rate, design capacity (e.g. number of bedrooms), projected daily sewage flow, wastewater application area (e.g. trench, bed length, or area), and all other relevant calculations.
 4. Calculations for determining the sizing criteria, and the projected design of the OWTS, including pump sizing, pump curves, dose volume, and frequency. For OWTS Design Applications, calculations for pumps are not required.
- B. The OWTS site plan shall be of sufficient clarity to indicate the nature and extent of the proposed work, be completely dimensioned, be drawn to scale no greater than 1 inch equals 20 feet, and include, at a minimum, the following:
1. Clear identification and location of the property including property lines, address(es), and assessor's parcel number(s).
 2. A vicinity map showing location and access to property. The vicinity map no not be drawn to scale.
 3. Clear identification and location of all proposed OWTS components and features including designated reserve replacement area(s).
 4. Access to proposed OWTS location(s).

5. North arrow and scale on all applicable sheets.
6. Clear identification and dimensions of all applicable setbacks to proposed OWTS.
7. Spacing and sizing of the orifices and laterals. This requirement does not apply to OWTS Design Applications.
8. Cross sections of dispersal trenches and interceptor drain(s), if applicable.
9. Details and dimensions of the septic tank, treatment units, pump tanks, performance wells, valves, dispersal trenches or beds, alarm and control panels, equipment or manufacturer specifications, and any other construction details. This requirement does not apply to OWTS Design Applications.
10. Any pertinent construction notes or specifications. This requirement does not apply to OWTS Design Applications.
11. Topographic information including contour lines and elevations (in feet) of the area in and around the proposed OWTS or percentage of slope when slope is not a critical factor in the proposed OWTS design;
12. Location of any known pertinent (passing or failing) site evaluation tests including soil profile pits, soil percolation tests, and groundwater determination tests.
13. Location of any pertinent nearby or neighboring OWTS or well(s).
14. Location of any pertinent existing and/or proposed underground or overhead utilities including sewer lines, water supply lines, storm drain lines, electrical lines, gas lines, and telecommunication lines.
15. Location of any pertinent existing and/or proposed surface improvements including driveways, paved areas, parking areas, patios, etc.
16. Location of any pertinent structures including homes, businesses, accessory structures, decks, outbuildings, swimming pools, retaining walls, solar arrays, etc.);
17. Location of any existing and/or proposed easements and public right-of-ways.;
18. Location of any site features which may affect the design or performance of the proposed OWTS including drainage features, streams, springs, lakes, ponds, marsh areas, cut banks, large trees.

4.10 OWTS Permit Implementation and Construction Inspections

- A. Responsibility of Work. The permittee shall be responsible for ensuring that the work approved under an OWTS permit is performed in compliance with the approved plans and specifications and the provisions of this OWTS Manual.
- B. Site Access. The permittee shall provide safe and adequate access to the site for inspection by the Permit Authority during the performance of all work approved under an OWTS permit.
- C. Inspections. The work and materials shall be inspected by the Permit Authority for compliance with the approved plans and specifications and the provisions of this OWTS Manual. The permittee shall comply with the Permit Authority's inspection request procedures. Construction inspections shall be scheduled for regular Permit Authority work days. The Permit Authority

REHS must be notified at least 24 hours in advance of desired inspection. No portion of the OWTS may be covered until it is inspected by the Permit Authority staff or the Permit Authority staff has authorized coverage prior to inspection. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this OWTS Manual. Inspections presuming to give authority to violate or cancel the provisions of this OWTS Manual shall not be valid. The following construction inspections are required. The Permit Authority may waive attendance.

1. Pre-construction consultation..
 2. Gravel placement, trenches or absorption bed should be level in previously approved proper location and placed on contour.
 3. Interim inspections, including squirt test and water tightness test of tank(s), if required.
 4. Startup inspection for pretreatment unit with Service Provider present.
 5. Final electrical inspection of associated building/electrical permit, if applicable.
 6. Final inspection of the completed system.
- D. Notification of Change of Ownership. The permittee shall notify the Permit Authority of any change in property ownership prior to the completion of work. For non-standard OWTS permits, new owners shall provide updated documentation required to comply with Section 14.
- E. Notification of Change of Qualified Consultant. If a Qualified Consultant is changed during the course of the work, the work shall be stopped until the permittee notifies the Permit Authority in writing of the change of Qualified Consultant and the new Qualified Consultant notifies the Permit Authority in writing of their agreement to accept responsibility for approval of the completed work and remaining work approved under the OWTS permit.
- F. Notification of noncompliance. The Qualified Consultant shall immediately report in writing to the Permit Authority and the permittee any instance of work not being done in compliance with this OWTS Manual, the approved plans and specifications, or any permit conditions, and shall also provide recommendations for corrective measures, if determined by the Qualified Consultant to be necessary.
- G. Field changes. After permit issuance, no change to the approved work shall occur without the prior written approval of the Permit Authority. If the Permit Authority determines that the changes are minor, the changes shall be shown on as-built plans. If the Permit Authority determines that the changes are significant, a request for a modification to the approved plans and specifications shall be filed as provided in Section 4.8.H.
- H. Protection of utilities. As required by Government Code Section 4216.2, the permittee shall contact the Underground Service Alert (USA) prior to starting any excavation that will be conducted in an area that is known, or reasonably should be known, to contain subsurface utility installations. Contact shall occur at least two working days, but not more than 14 calendar days, before the excavation starts. If practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated.
- I. Stop work orders. The Permit Authority may order that any work performed contrary to the requirements of this OWTS Manual, the approved plans and specifications, or any permit conditions, or any work that has otherwise become hazardous to property or the public, be immediately stopped. It shall be unlawful and a violation of this chapter for any person to resume work that was ordered to be stopped by the Permit Authority, unless the Permit

Authority has required and the permittee has agreed to any necessary corrective measures, and the Permit Authority has authorized resumption of the work in writing. A violation of a stop work order shall be punishable in compliance with county code.

- J. Completion of work. No permittee shall be deemed to have complied with the provisions of this OWTS Manual until a final inspection of the work has been completed and approved by the Permit Authority. The permittee shall notify the Permit Authority when the work is ready for final inspection. Final approval shall not be given until all work has been completed in compliance with the approved plans and specifications and the following applicable items have been completed:
 - 1. The Permit Authority staff has completed all required inspections.
 - 2. For OWTS required to be designed by a Qualified Consultant, the Qualified Consultant shall provide the Permit Authority with a signed and stamped letter certifying the OWTS was installed in compliance with the approved plans and specifications.
 - 3. For OWTS that require electricity to properly function, the final electrical inspection of the associated building/electrical permit must be approved.
 - 4. For Non-standard OWTS, an Operational permit must be issued.

4.11 General Provisions

- A. Reserve Replacement Area:
 - 1. Parcels created prior to October 1971 require 100 percent replacement area;
 - 2. Parcels created in October 1971 or later require 200 percent replacement area;
 - 3. In a dual dispersal field system, a portion of the replacement area is constructed with the initial system;
 - 4. Commercial, industrial and institutional developments require 200 percent replacement area.
- B. Incompatible uses including, but not limited to, driveways, tennis courts, parking lots, swimming pools, or structures over the replacement area shall be prohibited.
- C. No lot shall be improved in excess of its capability to properly absorb sewage effluent.
- D. No construction of OWTS shall occur during open wet weather groundwater periods or active rain storms, except when demonstrated by a Qualified Consultant that unsaturated soil conditions exist and compaction and smearing will not occur. Previously scheduled inspections are subject to cancelation by the Permit Authority if conditions are deemed unsuitable.
- E. OWTS shall be installed in accordance with the plans and specifications approved by the Permit Authority. The permittee assumes all risks associated with construction of any OWTS components not approved by the Permit Authority including removal, replacement, or performing additional work to verify compliance with this OWTS Manual.
- F. OWTS shall be located so as to be accessible for maintenance and repairs. Septic tanks and sump tanks shall be located so as to allow vacuum pumping.

- G. The building sewer and distribution piping shall be constructed with materials in conformance to building sewer standards identified in the Uniform Plumbing Code. The sewer and distribution piping shall have approved watertight fittings with clean-outs provided in accordance with the Uniform Plumbing Code.
- H. All OWTS Permit applications located near a water body that is subject to a TMDL APMP may be subject to additional, more stringent, criteria than those systems located outside a designated APMP.
- I. Site evaluations are required for new or replacement OWTS per Section 7.
- J. Any application that cannot meet the standards may apply for a variance pursuant to Section 17.
- K. A structural or building addition may not encumber any designated reserve replacement area. A revised designated reserve replacement area may be established if needed.
- L. All land disturbing activities to access or prepare an OWTS construction site or an OWTS site evaluation area must comply with the provisions of the county's grading ordinance.
- M. Protection of human remains and archaeological resources. Where human remains or archaeological resources are discovered, all work shall be halted in the vicinity of the find, the Permit Authority shall be notified, and the following shall occur before work may be resumed:
 - 1. Human remains. If human remains or suspected human remains are discovered, the permittee shall notify the county coroner and comply with all state law requirements, including Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, to ensure proper disposition of the human remains or suspected human remains, including those identified to be Native American remains.
 - 2. Archaeological resources. If archaeological resources or suspected archaeological resources are discovered, the Permit Authority shall notify the State Historic Preservation Officer and the Northwest Information Center at Sonoma State University, and the permittee shall retain a qualified archeologist to evaluate the find to ensure proper disposition of the archaeological resources or suspected archaeological resources. All costs associated with the evaluation and mitigation of the find shall be the responsibility of the permittee. The Permit Authority shall provide notice of the find to any tribes that have been identified as having cultural ties and affiliation with the geographic area in which the archaeological resources or suspected archaeological resources were discovered, if the tribe or tribes have requested notice and provided a contact person and current address to which the notice is to be sent. The Permit Authority may consult with and solicit comments from notified tribes to aid in the evaluation, protection, and proper disposition of the archaeological resources or suspected archaeological resources. The need for confidentiality of information concerning the archaeological resources or suspected archaeological resources shall be recognized by all parties. For the purposes of this section, archaeological resources include historic or prehistoric ruins, burial grounds, pottery, arrowheads, midden, or culturally modified soil deposits. Artifacts associated with prehistoric ruins include humanly modified stone, shell, bone, or other cultural materials such as charcoal, ash, and burned rock indicative of food procurement or processing activities. Prehistoric domestic features include hearths, fire pits, or floor depressions; mortuary features are typically represented by human skeletal remains.

4.12 Community Systems

- A. Community systems shall comply with this OWTS Manual.
- B. Community systems shall create a management agreement to ensure proper operation and maintenance, allocation of capacity, and administrative duties.
- C. Community systems shall be approved by the Permit Authority and the appropriate RWQCB.