

OWTS Manual Revisions v8-4 Justification:

Section	Type	Significance	Discussion
Section 1 General			
1.3.A	Edit	Medium	General statement that these regulations apply even if work is permit exempt. This is a typical approach for building, grading, and construction regulations.
1.3.B.2	Edit	Medium	Clarifying language for a community system and is consistent with the State's OWTS Policy for systems allowed to be regulated at the local level.
Section 3 Acronyms and Definitions			
3.1 Acronyms			
BTU	New	Low	Need to add acronym for "British Thermal Unit"
GPD	New	Low	Clarity
MPI	New	Low	Clarity
3.2 Definitions			
Advanced Protection Management Program Area	New	High	Need to add the Petaluma River TMDL.
As-Built plans	New	Low	Needed definition as term is used in the OWTS Manual
Atterberg Limit Analysis	New	Medium	Specific terms for soil evaluations
Bulk Density Analysis	New	Medium	Specific terms for soil evaluations
Class 2 Permeable Material	New	Medium	Specific terms for soils
Conditioned Space	Edit	Low	Removal of abbreviations
Cut Bank	Edit	Low	Editing the number "3" to "three."
Developed Site	New	High	The intent has been for developed sites to have flexibility due to site constraints. However, adding new systems or increasing waste flow (bedroom additions or ADUs) to existing systems on a "developed site" was not the intent. This definition hopefully clarifies the intent. Affects section 7.6 and section 17

Encumbrance	New	High	Defined for use in percent encumbrance for reserve areas.
Enhanced Effluent Dispersal System	New	High	Definition with the Russian River TMDL
Post-Construction Storm Water Treatment Facility	New	High	Term used in revised setback table. Establishes a setback distance from a septic system to a storm water treatment facility.
Qualified Consultant	Edit	High	To be consistent with State OWTS Policy
Qualified Inspector	New	High	To facilitate compliance with TMDL and APMP
Site Evaluation Area	New	High	Defines the area, which was evaluated, wherein the septic system should be place.
Site Map	New	Low	Term was used but not defined.
Soil Consistence	New	Medium	Specific terms for soil evaluations
Soil Profile	Edit	Medium	Specific terms for soil evaluations.
Soil Structure	Edit	Medium	Specific terms for soil evaluations
Soil Texture Hydrometer Analysis	New	Medium	Specific terms for soil evaluations
Storm Water Treatment Facility, Post Construction	New	High	Used in conjunction with setback table
Stream	New	High	Design community requested using “streams” that were mapped. Ephemeral, intermittent and perennial streams were not mapped/labelled as such. Blue line streams are mapped and easily identifiable.
Stream, Ephemeral Watercourse	Delete	Low	
Stream, Intermittent	Delete	Low	
Stream, Perennial	Delete	Low	
Supplemental Treatment	New	High	To facilitate compliance with TMDL and APMP
Swale	New	High	Term was included in the setback table under streams, waterway, and water bodies.
Section 4 Criteria for All OWTS			

4.2.B.13	New	Medium	To be consistent with State OWTS Policy. Excludes non-domestic wastewater from local jurisdiction.
4.3.A.1-7	New	Medium	Variance Table 17, row 5 converted to “exceptions.”
4.3.C	New	Medium	Clarification on process; refers to section 22 and RWB permitting.
4.6.A; B; C; D.5	Edit	Medium	Section 4.6 presents options and should not use “shall.”
4.6.F.3	New	High	Need to ensure grantor’s property can accommodate wastewater disposal for the grantor’s dwelling prior to granting wastewater easement.
4.6.J	New	High	Section 4.6.J was added to be consistent with section 14.
4.7.C.1 & 2	Deletion	Medium	Submittal requirements are not going away. Submittal requirements currently reside outside of the OWTS Manual via website and department policy.
4.8.C	Edit	High	RWB mandate.
4.8.D	Deletion	High	RWB mandate
4.8.J	New	Medium	Informational to provide clarity on process.
4.8.K	New	Medium	Informational to provide clarity on process.
4.9.A & B (old 4.9)	Deletion	Medium	Design report and site plan requirements are not going away. These currently reside outside of the OWTS Manual via website and department policy.
4.9 (new/old 4.10)	Numbering	Low	
4.9.C	Edit	Low	Added “issued permits” to the list of items that the constructed OWTS must comply with.
4.9.C.2	Edit	Low	Added heading for clarity
4.9.E	Edit	Medium	
4.9.J.2	Edit	Medium	

4.10	New	Medium	Documents process for change of consultant.
4.11.A.3	New	High	Addresses reserve areas when dual dispersal systems are used.
4.12.C	Edit	Low	Consistency with State OWTS Policy.
4.13.A.1-3	New	High	Variance Table 17, rows 2, 3, and 4 converted to “exceptions.”
4.13.B	New	High	Variance Table 17, row 1 converted to “exception.”
4.13.C	New	High	Variance Table 17, row 13 converted to “exception.”
Section 5 OWTS Abatements, Abandonments and Repairs of Failing Systems			
5.2.C.1	Edit	Low	Contents of tank that is being abandoned
5.2.C.2	Edit	Low	Edits for top of tank; deleting holes in bottom of tank.
5.2.C.3	Edit	Low	Clarification on what is to be removed.
5.2.C.D	New	High	Allow for the re-purposing of existing tanks: septic, sump and treatment tanks.
Section 6 Requirements for Approval of Building Permits			
6.4.C	New	Low	Revising this section to bring back the language on when and what is required for various types of projects and the 50% encumbrance threshold
6.4.C.2	New	High	Provides for second primary dwelling and accessory dwelling units.
6.4.C.2	New	High	When adding a new dwelling, requires replacement area all dwellings.
6.4.D (old)	Deletion	Low	Moving section on non-bedroom structures just below guest houses.
6.4.D (was 6.4.E)	Edit	Low	Re-numbering.
6.4.D.2.b	New	High	May require a reserve area depending on land encumbrance. See section 6.6.

6.4.E	New	High	Moved 6.4.D to 6.4.E. Revised 6.4.E. All provisions should have been underlined.
6.5.B.2	New	High	Building improvements with no increase in wastewater still need to be reviewed to ensure structure does not encroach onto existing system or reserve and to evaluate reserve area if site becomes more than 50% encumbered.
6.6.A to 6.6.C	Edit	High	Moves and edits section 6.6.A to 6.6.C
6.6.A (new)	New	High	Re-establishes the percent land encumbrance procedure.
6.6.B	New	High	Re-establishes and clarifies procedure to evaluate existing reserve areas.
6.8.A.5	New	Low	Clarification on reserve areas in a findings report. (needs to be deleted as this exact provision is added under 6.9 Findings Report).
6.9.B.1	New	High	Adds requirement for a findings report cover sheet.
6.9.B.3	Bew	Medium	Adds clarity on when reserve areas are to be included in a findings report.
Section 7 Site Evaluation Methods and Investigation Requirements			
7.2.B.2	Edit	Medium	Adds to the criteria when altered terrain may be acceptable for an OWTS. Variance Table 17, row 10 converted to "exception."
7.2.D.1	Edit	Low	Typo
7.2.E	New	High	Variance Table 17, rows 6 and 7 converted to "exception."
7.2.F	New	High	Variance Table 17, row 8 converted to "exception."
7.2.G	New	High	Variance Table 17, row 9 converted to "exception."
7.2.H	New	High	Variance Table 17, row 11 converted to "exception."
7.2.I	New	High	Variance Table 17, row 12 converted to "exception."

Table 7.2b (row 12)	New	Low	Added “clay loam” to row 12 for consistency.
Table 7.2c	New	High	Adding row numbers. Footnotes are now notes: N1 to N9. “Mapped” streams vs ephemeral, intermittent, etc. Added setbacks for: Storm Water InfrastructureGroundwater Infrastructure
Table 7.2d	New	Medium	Table 7.2d documents the starting point for setback measurement for the various types of OWTS.
7.3.E	Edit	Low	Provision was missing soil texture and soil profiles in the list of site evaluation parameters.
7.4.D	Edit	Low	Clarifying current language
7.4.F	Edit	Medium	Explicit language on use of a backhoe and when other methods are acceptable.
7.4.G	Edit	Low	Minor edits
7.4.H	Edit	Low	Section 7.4.H was inadvertently tucked under 7.4.G. Section 7.4.H will be returned as a stand alone section with the following edits: Item 2 – capitalization typo Item 6 – adding the term “Limiting condition(s)” to the list to be observed.
Figure 7.4	Edit	Low	Fixing 30% type along the percent silt side of triangle.
7.5.F	Edit	Medium	Revising criteria on when soil mottling may be used.
7.6.B	Re-Written	High	Adds flexibility for “developed sites.”
7.6.C	Re-Written	High	Adds flexibility for “developed sites.”
7.6.D	Re-Written	High	Adds flexibility for “developed sites.”

Table 7.6 A	New	High	Details on how to proceed if/when consultant and staff disagree on observed soils
7.6.E	New	High	Clarification on minimum perc holes and when additional perc holes may be required.
7.7.A	Edit	Medium	Clarification on perc hole construction
Table 7.8a	Deleted	Low	Replaced with Table 7.7c
Table 7.8b	Deleted	Low	Replaced with Table 7.7c
Table 7.7c	New	High	Replaces tables 7.8a and 7.8b Attempts to capture all site parameter requirements by system type
7.9	Re-Written	High	Several re-written for clarity Establishes process for averaging perc rates Provisions not allowing sites with an overall average of < 1 MPI and with an overall average > 120 MPI.
Table 7.9a	New	High	Summarizes in table format the provisions of 7.9
7.10.A	Edit	High	Edit needed to provide flexibility in section 7.6.
7.12	Re-Written	High	Revised section to provide standards and clarification on cumulative impact studies.
7.13	New	High	Established distances for on-site field evaluation parameters and establishes where the dispersal system can be located relative to the field evaluation points. Uses the definition "site evaluation area."
7.14	New	High	Section 7.14 documents how prior site evaluation work is to be honored/accepted.
Section 8 Criteria for OWTS Components			
8.1.A.4	Edit	Low	Same intent, slightly modified language.
8.7.A	Edit	Medium	Several clarifications regarding intercept drains.

Section 9 Criteria of Standard OWTS			
9.1.C	Edit	Low	Minor edits, same intent.
Table 9.1	Edit	Low	Adding “clay loam” to row 12 to ensure rows 10, 11 and 12 are consistent.
9.2.D, E and N	Edit	Low	Clarification language to match practice.
9.5.A and H	New	Medium	Clarification language to match practice.
9.6.A.5	Edit	High	Proposed language codifies allowing pretreatment when only two feet of soil is available versus the current language that requires a variance.
9.6.A.14	Edit	Low	Reduces that amount of cover material required.
9.8	Edit	Low	To clarify system type
9.8.A.5	Edit	Low	Clarification language to match practice.
Section 10 Criteria for Water Reuse			
10.1.A	Edit	Low	Updating the references to the current plumbing code.
Section 11 Criteria for Commercial, Industrial, and Institutional OWTS			
11.1.H	New	Low	To ensure consistency with State OWTS Policy.
Table 11-1	Edit	Low	Adding flow rates for wineries with food service.
11.2	Deletion	Low	To ensure consistency with State OWTS Policy.
11.5	Edit	Low	Deleting the 10,000 gpd language as one could have a package treatment plant with smaller flow rates. Package treatment plants with only domestic waste and with less than or equal to 10,000 gpd would be under location jurisdiction.
Section 13 Non-Standard Experimental and Alternative OWTS Standards			

13.1.A	Edit	Low	Clarity on the purpose for bottomless and filters.
13.1.C.1	Edit	Low	Update reference to the Washington State's "Sand Line Trench Systems" publication.
13.1.E.1 through 6 (old)	Deletion	Medium	
13.1.E.1 through 6 (new)	New	Medium	Clarity on the number and spacing of performance wells relative to site slope.
13.2.B.1	Edit	Medium	Clarification language to match practice for acceptable perc rates for this system type.
13.3.B.4	Edit	High	Clarity on permeable soil relative to site slope.
13.3.B.6	New	High	Avoid wooded areas and areas with surface rock. If unavoidable, increase basal area to compensate.
13.3.B.7	Edit	High	OWTS Manual was silent on separation distances between mound systems. Creates separation distances between primary mound systems.
13.3.B.8	New	High	Creates separation distances between primary and reserve mound systems.
13.3.B.9	New	High	Language on where to measure separation distances and chart summarizing the separation distances.
13.3.C.4.a -- m	Edit	Low	Clarity on mound sizing formulas.
13.3.C.5	Edit	Low	Clarity by changing "distribution bed" to "dispersal gravel beds."
13.3.C.7	Edit	Low	Clarity by changing "distribution bed" to "dispersal gravel beds."
13.3.C.14	New	Low	Provision was within section 13.3.C.4 Infiltration Area. Moving to a standalone provision makes this provision more global.
13.3.D.3	Edit	Low	Clarity on site preparation for mound systems. Consistency with Wisconsin mound manual.
13.3.E.1.a through f (old)	Deletion	Medium	
13.3.E.1.a through f (new)	New	Medium	Mostly the same. Discerns performance wells based on site slope.

13.4.C.1.a -- c	New	Medium	Adds provision "b" to provide clarity on trench spacing.
13.4.C.4.b	Deleted	Low	Moved to 13.4.C.1.c
13.5.B.1 and 2	Edit	Low	Separating old 13.5.B.1 and 2 into separate provisions for clarity.
13.5.B.2.c	New	Medium	Clarification language to match practice.
13.5.B.4	Edit	High	Allows reduction of soil depth with pretreatment without a variance.
13.5.B.5	New	High	Avoid wooded areas and areas with surface rock. If unavoidable, increase basal area to compensate. Prior language prohibited these areas.
13.5.B.6	Edit	High	OWTS Manual was silent on separation distances between at-grade systems. Creates separation distances between primary at-grade systems.
13.5.B.7	New	High	Creates separation distances between primary and reserve at-grade systems.
13.5.B.8	New	High	Language on where to measure separation distances and chart summarizing the separation distances.
13.5.C.3.a & c	Edit	Low	Clarity on At-Grade sizing formulas.
13.5.C.3.e	Edit	High	Allows for dual bed at-grades. Prior language did not allow.
13.5.C.7.c.v	New	Medium	Clarity on location of pressurized line for low slope sites.
13.5.D.3	Edit	Low	Clarity on site preparation for at-grade systems. Consistency with Wisconsin mound manual.
13.5.E.1.a -- d	Edit	Low	Clarity on performance wells based on site slope.
13.6.B.5	Edit	High	Clarification language to match practice.
13.7.A	Edit	Low	Cleanup language

13.7.B.1	Edit	Medium	Clarification language to match practice.
13.7.B.3	Edit	Low	Cleanup language
13.7.B.4 -- 6	Edit	High	Allows drip and drip with fill on steeper slopes with variance and geotechnical study. Need to delete the need for a variance.
13.7.B.7 and 8	New	High	Clarification language.
13.7.C.3	Edit	High	Clarifying language on the depth of native soil and cover soil for subsurface drip systems.
13.7.C.4; C.6 through C.14	Edit	Low	Cleanup language
13.7.C.16	Edit	High	Clarity on when disinfection is required for subsurface drip systems.
13.7.C – Figure Labels	Edit	Low	Added the word “Example” to all figures in section 13.7.C.
13.7.C.17	Edit	Low	Edits to clarify “disconnected.”
13.7.D.1 through 10	Edit/New	High	Revised and new standards for subsurface drip systems for site preparation and fill placement.
13.8.A & B	New	High	New standards for surface drip systems or at-grade drip with cover.
13.9 Pretreatment Units	Edit	Low	Re-numbered
Section 14 Non-Standard and/or Commercial OWTS Operational Permit and Monitoring			
14.A	Edit	High	Alters required monitoring program from all non-standard and commercial systems to those systems that use supplemental treatment. This is to be consistent with the State OWTS Policy.
Section 17 Variance Requirements			

17.B	Deletion	High	Variances are being shifted to be “exceptions.” Exceptions provide an alternative means to achieve compliance and can be used regardless. Eliminates the “no other reasonable alternative exists” language.
17.E	Deletion	High	Each of variance items in Table 17 have been moved into other sections of the OWTS Manual as an exception and Table 17 is being deleted.
Table 17, row 1	Deletion	High	Moved to Section 4.13.B
Table 17, row 2	Deletion	High	Moved to Section 4.13.A.1
Table 17, row 3	Deletion	High	Moved to Section 4.13.A.2
Table 17, row 4	Deletion	High	Moved to Section 4.13.A.3
Table 17, row 5	Deletion	High	Moved to Section 4.3.A.7
Table 17, row 6	Deletion	High	Moved to Section 7.2.E
Table 17, row 7	Deletion	High	Moved to Section 7.2.E
Table 17, row 8	Deletion	High	Moved to Section 7.2.F
Table 17, row 9	Deletion	High	Moved to Section 7.2.G
Table 17, row 10	Deletion	High	Moved to Section 7.2.B.2
Table 17, row 11	Deletion	High	Moved to Section 7.2.H
Table 17 row 12	Deletion	High	Moved to Section 7.2.I
Table 17 row 13	Deletion	High	Moved to Section 4.13.C
Table 17 row 14	Deletion	Low	Redundant with Section 4.3.B
Table 17 row 15	Deletion	Low	Redundant with Section 4.3.C & Section 22

Table 17 row 16	Deletion	Low	Redundant with Section 4.3.D
Section 18 Variance Prohibition and Special Standards Areas			
18.C.1 & 2	Deletion	High	Removes outdated language regarding the Russian River and Petaluma River TMDLs
18.C and D	New	High	Adds newer language Russian River and Petaluma River TMDL
Section 20 Tier 3, Treatment, Monitoring, Inspection and Sampling for Supplement Treatment Units			
Section Heading	Edit	Low	Heading revised to reflect new content within this section.
20.1 Heading	Edit	Low	Sub-heading revised to reflect new content.
20.2.A – D	New	High	Creates the Russian River Watershed’s Advanced Protection Management Program
20.3.A – F	New	High	Creates the Petaluma River Watershed’s Advanced Protection Management Program
20.4.A -- E	New	High	Creates the Sonoma Creek Watershed’s Advanced Protection Management Program
Section 22 Waste Discharges Not Authorized by the SWRCB OWTS Policy			
22.1	New	High	Provides a process for domestic waste discharges not authorized under the State OWTS Policy. <ul style="list-style-type: none"> • Sonoma County will review and upon approval client will submit to the appropriate RWB for approval. Client can submit in parallel. • Upon approval by the appropriate RWB, Sonoma County will issue the permit for construction.
22.2	New	High	Provides a process for non-domestic waste discharges not authorized under the State OWTS Policy. <ul style="list-style-type: none"> • Sonoma County cannot authorize the discharge of non-domestic waste.

			<ul style="list-style-type: none">• Client must submit discharge permit application to appropriate RWB.• Upon approval by the appropriate RWB, Sonoma County will review and issue construction only permits.
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