

ID	Author	Sort	Section	Comment	Response	Edit Y/N	Edits
37	1	1	General	<p>A.2b. A Findings Report is required to document an existing Code Compliant OWTS when a septic permit does not exist. In 2016, my research revealed that there were an estimated 44,000 parcels served by OWTS. The County had no septic related records for over 23,000 of these properties. Of the estimated 21,000 properties for which the county has some form of record, I would assume that a majority of these would not be able to show compliance with current standards.</p> <p>Those properties that are subject to Tier 3 Impaired Areas subject to a TMDL and an Advanced Protection Management Program (APMP) may be subject to more stringent requirements.</p> <p>The State attempted to address the issue of economic hardship, as it relates to depth to groundwater and especially replacement in the Environmental Document (page 205) as follows:</p> <p>“This however, could cause harm to existing communities and those homeowners and business owners that have existing structures with inadequate site conditions for a replacement OWTS.... This represents a conflict in local government land use policy and an impact that could be Potentially Significant due to the potential for homes and businesses that may not be able to meet the two foot requirement when required to replace their OWTS. In order to address this impact, the State Water Board added section 11.5 to the Proposed Policy. This section allows for repairs that are “in substantial compliance, to the greatest extent practicable” with the applicable tier of the proposed Policy. Therefore, this impact has been reduced to Less Than Significant.”</p> <p>The top four county’s with the highest number of housing units with OWTS are: San Bernardino, Riverside, Los Angeles and San Diego. Their depth to groundwater issues are not the same as here in Sonoma County. Approximately 475,000 housing units with OWTS in these four counties versus 45,000 in Sonoma County. How is this not an issue of unfair economic hardship to require replacement OWTS to meet the same standards as a new OWTS?</p>	Comment noted.	N	

200	ARosas	1	General	Update OWTS Manual to replace instances of the word “may” to “shall”, where appropriate.	Comment noted.	Y	This edit occurs in the following sections: 4.3.A 4.4.A.3 4.4.A.4 4.6.H.4.a 4.6.I.1.d 4.6.I.2.d
204	ARosas	1	General	Pick consistent language to use for “non-standard” or “nonstandard” throughout OWTS Manual.	Edits made. Using “non-standard”.	Y	Numerous edits changing “nonstandard” to “non-standard”
201	ARosas	3	A	Identify acronyms	Acronyms identified in revised section 3.	Y	Section 3 Approximately 20 acronyms were spelled out in section 3.

202	ARosas	3	A	Reconcile definitions present in OWTS Manual with same definitions present in OWTS Policy: bedrock, clay, domestic wastewater are not consistent with OWTS Policy.	Definitions reconciled where warranted.	<p>Section 3</p> <p><u>Bedrock means solid rock, which may have fractures, that lies beneath soils and other unconsolidated material. Bedrock may be exposed at the surface or have an overburden up to several hundred feet thick. means the rock, usually solid, that underlies soil or other unconsolidated, surficial material.</u></p> <p><u>Clay means mineral soil particles less than 0.002 millimeters in diameter. It is classified in the USDA Soils Classification Triangle as a soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt. means a soil particle. The term also refers to a type of soil texture. As a soil particle, clay consists of individual rock or mineral particles in soils having diameters less than 0.002 millimeters. As a soil texture, clay is the soil material that is comprised of forty percent or more clay particles, not more than forty five percent sand and not more than forty percent silt particles using the USDA soil classification system.</u></p> <p><u>Domestic Wastewater means the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household dishwashing facilities and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as offices, retail stores and some restaurants. Domestic wastewater may include incidental recreational vehicle (RV) holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as an RV dump station. Typical domestic wastewater will have a 30-day average concentration of BOD less than 300 milligrams per liter or total suspended solids (TSS) less than of 300 milligrams per liter prior to the septic tank or other OWTS treatment component. Domestic wastewater does not include high strength wastewater or wastewater from industrial processes. means wastewater with a measured strength less than high-strength wastewater and is the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals. Domestic wastewater may include wastewater from commercial building such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater. Domestic wastewater may include incidental RV holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump stations. Domestic wastewater does not include wastewater from industrial processes.</u></p>
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203	ARosas	3	A	Provide definitions present in OWTS Policy that are absent in the OWTS Manual.	Missing definitions added.	Y	<p><del>Section 3</del>  <del>Commercial OWTS is OWTS on a parcel of land that produces a peak daily sewage flow of 1,500 gallons per day or more of any wastewater strength or generates a wastewater of any quantity that meets the definition of a high strength wastewater. BOD concentrations up to 900 milligrams per liter are allowed at commercial food service buildings that are equipped with a properly sized and functioning oil/grease separator.</del> <u>means an OWTS that serves a facility or structure whose occupants are engaged in the buying or selling of goods or services or that serves a facility or structure which is a non-residential occupancy.</u></p> <p><del>Community System is a decentralized OWTS that serves multiple structures, multiple wastewater discharge sources and/or multiple parcels of land under separate ownership and STEG systems.</del> <u>means an OWTS that serves multiple sources of wastewater from two or more parcels of land.</u></p>
205	ARosas	3	O	Clarify definitions of "Existing OWTS", "New OWTS", and "Replacement OWTS".	Definitions for New OWTS, Replacement OWTS, and Non-Conforming have been added under OWTS.	Y	<p><b>OWTS, New</b> means an OWTS proposed for construction in compliance with this OWTS Manual.</p> <p><b>OWTS, Non-Conforming</b> means an OWTS that has a septic tank and dispersal system and was in compliance with the septic laws, regulations or codes when constructed and which is not in compliance with this OWTS Manual. OWTS constructed prior to OWTS regulations may be considered Non-Conforming OWTS.</p> <p><b>OWTS, Replacement</b> means an OWTS that has its treatment capacity expanded, or its dispersal system replaced or added onto.</p>
212	ARosas	4.10	4.10	More clearly explain what is required of an OWTS design and site plan in actual practice.	Edits made. Section 4.10 renamed Section 4.9.	Y	<p>Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.</p> <p>Sections specific to this comment:  Section 4.9</p>

213	ARosas	4.11	4.11	Clarify language regarding permit transfer requirements.	<p>Old Section 4.11 omitted. Most of this section was for internal processing.</p> <p>Added Sections 4.8.H &amp; 4.10.G to account for revisions and field changes. Added Sections 4.10.D &amp; 4.10.E to account for changes of ownership and QC's.</p>	Y	<p>Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.</p> <p>Sections specific to this comment: Section 4.8.H. Section 4.10.D Section 4.10.E Section 4.10.G</p>
214	ARosas	4.12	4.12	Clarify permit implementation responsibilities for permittees.	<p>Edits made. Language added to clarify permittee responsibilities for implementing permit.</p> <p>Section 4.12 revised into Section 4.10.</p>	Y	<p>Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.</p> <p>Sections specific to this comment: Section 4.12.</p>
215	ARosas	4.12	4.12.A	Clarify required inspections language.	<p>Edits made. Language revised to clarify required inspections.</p> <p>Language from old Section 4.12.A moved to new Section 4.10.C.</p>	Y	<p>Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.</p> <p>Sections specific to this comment: Section 4.10.</p>
216	ARosas	4.12	4.12.C	Clarify requirements to final OWTS permit.	<p>Edits made. Language revised to clarify requirements to final OWTS permit. Language from old Section 4.12.C moved to new Section 4.10.J.</p>	Y	<p>Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.</p> <p>Sections specific to this comment: Section 4.10.J</p>
218	ARosas	4.13	4.13	Include language regarding land disturbing activities subject to regulatory oversight under county's grading ordinance.	<p>Language added to state land disturbing activities must comply with the county's grading ordinance.</p> <p>Section 4.13 General Provisions was re-numbered to now be 4.11. See new Section 4.11.N.</p>	Y	<p>Section 4.11 General Provisions</p> <p>N. <u>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.</u></p>

217	ARosas	4.13	4.13.K	Update language regarding human remains and archeological sites.	Edits made. Language added from county grading ordinance for consistency. Old Section 4.13.K deleted, new Section 4.11.O added.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.11.K Section 4.11.O Section 4.10. G
206	ARosas	4.6	4.6	Clearly state where an OWTS should be placed and when an easement would be allowed.	Section 4.6 has been revised to provide clarity.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.6
207	ARosas	4.7	4.7 & 4.8	Consolidate the “permit” and “plan check” only application processes. More clearly explain who can submit an OWTS application. More clearly explain the time frames associated with plan check, extensions, and expirations/renewals.	Edits made. The “permit” and “plan check only” application processes are now consolidated into a singular process.  Clarifying edits made and language added to address who can submit an OWTS application.  Clarifying edits made and language added describing the time frames related to plan checks, extensions, and expirations. Language more consistent with SCC chapter 7 & 11 (code sections regulating building and grading work).	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.7 Section 4.8
208	ARosas	4.9	4.9	Include replacement and repair of sump tanks and pretreatments units under replacement OWTS permits.	Edits made. Section 4.9 renamed Section 4.8.	Y	Section 4.8.C (revised) 1. <u>The replacement or repair of a septic tank.</u> 2. <u>The replacement or repair of a sump tank.</u> 3. <u>The replacement or repair of a pretreatment unit.</u> 4. <u>The replacement of a dispersal system greater than twenty five percent (25%) of the total linear footage of the existing dispersal system.</u>

209	ARosas	4.9	4.9	Expand permit exemptions to include work that has been exempted in practice but not currently stated.	Edits made. Section 4.9 renamed Section 4.8.	Y	<p>Section 4.8.F (revised)</p> <ol style="list-style-type: none"> <li>1. <u>Risers, lids or covers,</u></li> <li>2. <u>Sanitary tees</u></li> <li>3. <u>Effluent filters</u></li> <li>4. <u>Air release, balance, diversion, and purge valves, valve boxes, or valve vaults</u> <del>diversion valves</del></li> <li>5. <u>Distribution box</u></li> <li>6. <u>Performance wells</u></li> <li>7. <u>Clean outs</u></li> <li>8. <u>Sump tank pumps, piping, or floats set per original design specifications,</u></li> <li>9. <u>Minor cracks in septic tanks or sump tanks.</u></li> <li>10. <u>Transmission line from structure to septic tank, sewer line from house to septic tank</u></li> <li>11. <u>Transmission line from tank to distribution box(es) or diversion valve(s), sewer line from tank to distribution box and/or distribution box</u></li> <li>12. <u>Solid transmission lines connecting distribution box(es) and/or diversion valve(s), solid sewer lines connecting distribution boxes and/or distribution box(es)</u></li> <li>13. <u>Hydrojetting.</u></li> </ol>
210	ARosas	4.9	4.9	More clearly explain the time frames associated with permit implementation, extensions, and expirations/renewals.	<p>Clarifying edits made and language added describing the time frames related permit implementation, extensions, and expirations/ renewals.</p> <p>Language more consistent with SCC chapter 7 &amp; 11 (code sections regulating building and grading work). Section 4.9 revised as Section 4.8.</p>	Y	<p>Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.</p> <p>Sections specific to this comment: Section 4.8</p>
211	ARosas	4.9	4.9	Add language regarding permit revisions.	Edits made. Section 4.9 revised as Section 4.8.	Y	<p>Section 4.8.H (added)</p> <p>G. <u>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.</u></p>
10	CRodgers	1	General	I feel there should be more flexibility with the existing/developed properties-not less.	Comment noted.	N	

7	D & J Butler	1	General	The land is ours! You have no right to impose the wild requirements on us! If you are going to impose them, then you pay for them. We do not have the money to comply with the ridiculous and imposing requirements. How much water a single family home is minimal compared to dairies, vineyards, and chicken ranches! Focus on them rather than small, residential parcels.	Comment noted.	N	
28	DHenderson	4.2	4.2.A	NOT HELPFUL! Too negative. Give some info on authorization possibilities, conditions, procedures etc. We need this infor on Fitch Mountain. What's exactly is a STEP OWTS?	Comment noted.. This provison will be re-written in a more affirmative fashion.  A septic tank effluent pumping (STEP) systems consists of a series of septic tanks located on each individual property that a connected to a commom sewer line that pumps the liquid fraction to a common treatment and/or dispersal area.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.2 A. Section 4.12
198	DPimlot	8.1	8.1	Watertight testing should be required for new tanks.	Agreed. Section 8.3 has been into section 8. See attached section.	Y	See attached section 8.3.
174	EMyzska	6.10	6.10.A.1	does county record = PRMD? #1 and #2 are confusing as written because County Assessor is also County.	No. It means any County record. Could be Env Health, the Assessor Office or something else we have not considered.	N	
176	EMyzska	6.11	6.11.B.1	add structures to site map requirements	Agreed. Section 6.11 has been revised to be section 6.10.	Y	Section 6.10.B.1 1. A site map including the parcel, assessor's parcel number, <u>existing structures, proposed structures</u> , the located septic tank, the dispersal system, the replacement area, a north arrow, direction of slope, and scale or measurements to relevant features on the property.
177	EMyzska	6.11	6.11.B.2	suggest "the dispersal system shall be FIELD located..."	Comment noted. The level of effort is dependent on the scope of the building proposal and we need to leave this vague and use judgment on when we ask for field location of dispersal systems.	N	
178	EMyzska	6.11	6.11.B.3	add "S" to structure	Comment noted.	Y	Section 6.10.B.3 3. Indicate the bedrooms/units/structures served by the system. Documentation of structure <del>s</del> may be derived from building permits and/or assessor records.



179	EMyzska	6.11	6.11.B.4.a	ensure, not insure	Comment noted. Section 6.11 was renumbered to be 6.10.	Y	Section 6.10.B.4.a a. Uncovering distribution boxes to <del>ensure</del> insure that the system is functioning adequately;
180	EMyzska	6.11	6.11.B.4.b	add reference to Section 6.12.A-C	For subsections 6.10.B.4.b and c, references to 6.11 Hydraulic Load Test was added. Both section 6.11 and 6.12 were renumbered to be 6.10 and 6.11, respectively.	Y	Section 6.10.B.4.b b. Hydraulic load test ( <u>see section 6.11.A-C</u> );
181	EMyzska	6.11	6.11.B.4.c	add reference to Section 6.12.D	Comment noted.	Y	Section 6.10.B.4.c c. Pump test ( <u>see section 6.11.D</u> ); or
182	EMyzska	6.11	6.11.B.6	add sizing “in gallons per day”	Comment noted. We ask for the number of bedrooms in item B.3 and a site map showing the dispersal system (in plan view). B.5 is for the linear feet of dispersal system.	N	
165	EMyzska	6.4	6.4	add language to include a guest house scenario.	Agreed. See revised section 6.4.E	Y	Section 6 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 6.  Sections specific to this comment: Section 6.4.E
175	EMyzska	6.4	6.4	Add guest house	Agreed. See revised section 6.4.E	Y	Section 6 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 6.  Sections specific to this comment: Section 6.4.E
167	EMyzska	6.5	6.5.B.3	suggest “may be required” instead of “required”.	Please review section 6.8.B and 6.8.C. The proposed language is to either require or evaluate the reserve replacement area.	N	
168	EMyzska	6.5	6.5.C.1	add “for the primary dwelling unit” so that it reads “An existing non-conforming septic system... is required for the primary dwelling unit.”	Comment noted.	N	
166	EMyzska	6.5	6-5 B.2	This section is about accessory structures WITH plumbing. As such, it implies there WILL be an increase in wastewater flow. Suggest clarification about how adding plumbing would not increase flow or remove.	One could add a sink or fixtures to a barn or accessory structure that does not contain bedrooms. Remember we equate flow with bedrooms.	N	

169	EMyzska	6.6	6.6.A.2	add "for the primary dwelling unit" so that it reads "An existing non-conforming septic system... is required for the primary dwelling unit."	Comment noted.	N	
170	EMyzska	6.8	6.8.A	Suggest "above 50% OF SUITABLE SOIL" to address a scenario where the remaining 50% of the land may not be suitable for an OWTS due to rock outcroppings, slopes >30%, etc.	Comment noted. The point is we don't know which land is suitable. Once the 50% threshold is exceeded or proposed to be exceeded, that is the time to determine if the remaining land is suitable.	N	
171	EMyzska	6.8	6.8.A.1	define what encumbers land area – does it include driveways, horse riding areas, etc?	Land encumbrance is defined in section 3.	N	
172	EMyzska	6.8	6.8.B 6.8.C	add language to read "Evaluation of the PREVIOUSLY APPROVED reserve replacement area" or similar. Also, change "preliminary design" to "plan check approved design" to indicate that a plan check process must be completed.	Comment noted. We are not looking for a full plan check design. We want enough detail to set aside the land area.  Section 6.8 has been revised to be section 6.6.	Y	Section 6.6.B  1. Evaluation of the <u>approved</u> reserve replacement area consists of ensuring the proposed building does not physically encroach into, onto or adversely affect the <u>approved</u> reserve replacement area. A site map documenting the location of the proposed structure or structural improvements and the reserve replacement area should suffice.
183	EMyzska	6.8	6.8.D.4	line down says "no edits" – typo – remove	There is no section 6.8.D.4.	N	
173	EMyzska	6.9	6.9.A.2.a	Reword – confusing. Suggest "documentation for a finalized septic system permit is incomplete or show non-compliance..."	Agreed. Re-written to clarify.  Section 6.9 was renumbered to be 6.7	Y	Section 6.7.A.2.a a. <u>Documentation for a finalized septic system is incomplete</u> <del>A finalized septic system permit when documentation is missing information</del> or shows non-compliance with current standards; or
153	GFelix	3	C	"Community System. Want this definition to be more specific as to the possibility of multiple septic easements for adjacent parcels on one parcel. Contact me for example	Community system definition is being revised.	Y	Section 3 <u>Community System means an OWTS that accepts wastewater from buildings or structures on two or more parcels or an OWTS shared by buildings or structures under separate ownership whether or not they are on the same Parcel. A community OWTS may be either privately or publicly owned or operated.</u>  <del>Community System is a decentralized OWTS that serves multiple structures, multiple wastewater discharge sources and/or multiple parcels of land under separate ownership.</del>
155	GFelix	4.12	4.12	Prior to final of a Nonstandard system permit, a Site Plan showing structures and ACCESS to the tanks/panel and dispersal field shall be provided by the consultant (for use in the OPR Inspection process)	Comment noted. Staff are addressing separately under OPR process improvements.	N	

154	GFelix	4.2	4.2	How does this relate to situation above? 4.2A specifies a 'shared' OWTS. Systems in close proximity can 'act' as a community system. How is this possible situation being addressed?"	The commenter refers to the scenario where there are multiple OWTS in close proximity, due to easements, on one parcel but are serving individual structures and with the structures being on separate parcels.  The OWTS Manual addresses this scenario in section 7.12 Cumulative Impact Studies.	N	
152	GFelix	6.11	6.11	Report should include review of the OPR file for history and results of self monitoring and PRMD inspections and 'compliance' with the OPR permit requirements.	Section 6.11.B.8 requires a completed monitoring form for nonstandard systems. This provision is being revised to require the monitoring form only if the information is past due.  Section 6.11 is revised to be section 6.9.	Y	Section 6.9.B.8 8. A completed monitoring form for <u>non-standard</u> <del>nonstandard</del> systems <u>if the monitoring form is past due.</u>
158	GSchram	6	6	Section 6 is a giant step back from for Sonoma County in regards to getting septic systems upgraded and protecting the environment. Property owners should not be allowed to rebuild their entire homes without a septic upgrade. The current remodel policy could be modified, so that if more than 75% of the exterior walls are modified it would trigger a code conforming system. The remodel should also be restricted regarding size of an addition (maybe 1000 SF). I understand loosening up on the remodel policy, but letting property owners do whatever they want without upgrading or at least inspecting their septic system is a problem	Septic policies are now consistent with Sonoma County Code.	N	
159	GSchram	6.8	6.8	Section 6.8 references that if a parcel has more than 50% encumbrances than reserve area will be required. This will be very difficult to define. County staff has complained about the old remodel policy being too difficult to determine if more than 50% of exterior walls are being modified. This is much more difficult to define than exterior walls being modified.	Comment noted.	N	
160	GSchram	6.9	6.9.A.2	Under Section 6.9, A.2.a. the wording "when documentation" should be deleted so the sentence makes sense and agrees with the preceding part.	In many cases, the supporting documentation related to the septic permit is in the file, but not attached or included as part of the the actual permit.	N	

161	GSchram	9.1	9.1.B	States that the perc rate for a standard system shall be between 1 to 60 MPI. It should also mention that below trench bottom can be between 61 and 120 MPI	Agreed.	Y	Section 9.1.B B Standard OWTS may be allowed in areas with soil percolation rates of 1MPI to 60MPI at trench bottom. <del>Soil percolation rates of 61 to 120 minutes per inch require installation of a non-standard OWTS.</del> Section 9.1.C C. The minimum soil depth below the leaching trench shall be 3 feet for a Standard OWTS <u>with soil percolation rates of 1 to 120MPI.</u>
162	GSchram	13.1	13.1	Sand filters should not be considered experimental anymore.	Comment noted. We will discuss with RWBs on moving these into Alternative Status.	N	
163	GSchram	13.7	13.7.B.5	At grades and mounds can go to 25%. Fill for drip systems and filled land should be allowed to go to 25%	Fill is needed over the drip system when drip system is place shallower than normal. This increases the potential for breakout, hence the reduction in slope. The slope can be steeper with an approved variance.  For an at-grade or mound the downslope fill cover is specific and mitigates for potential breakout.	N	
164	GSchram	13.7	13.7.C 3	Drip system should be allowed to be placed at native grade with 12"" of fill. At least to a slope of 25%"	Comment noted. We agree however standards need to developed for scarifying the native earth. We will work on these standards as we produced the APMP.	N	
20	JGimurtu	1	General	There should be a section about service levels or duties/responsibilities of PRMD to residents and landowners of the County. I am trying to permit a new OWTS and the level of support that I receive from PRMD given what we pay in fees ins unacceptable. Functionally, PRMD is preventing or suspending development (and sustainable/affordable housing) because they cannot support the existing OWTS Manual. Why make changes to the current manual if your staff will not work with existing permit holders to build new systems?	Comment noted.	N	

264	JJohnson	3	C	Revise definition of Community System to be: Community System is a decentralized OWTS that serves multiple structures, multiple wastewater discharge sources and/or multiple parcels of land under separate ownership at or near the point of waste generation. Also known as Cluster Systems, Collector Systems and Distributive Systems and include STEP and STEG systems. . (STEP is mentioned in 4.2.A)	Comment noted. Definition has been revised, but differently than this comment.	Y	Section 3 <u>Community System means an OWTS that accepts wastewater from buildings or structures on two or more parcels or an OWTS shared by buildings or structures under separate ownership whether or not they are on the same Parcel. A community OWTS may be either privately or publicly owned or operated.</u>  <del>Community System is a decentralized OWTS that serves multiple structures, multiple wastewater discharge sources and/or multiple parcels of land under separate ownership.</del>
271	JJohnson	3	C	Add the following definition: <b>Combined Treatment and Dispersal (CTD) System:</b> a treatment system comprised of wastewater components that combine treatment and dispersal in one footprint and is capable of providing ANSI/NSF Standard 40 secondary wastewater treatment or equivalent treatment as demonstrated by an ANSI-accredited testing facility. (see Section 13.10)	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	

265	Johnson	3	D	<p>Revise definition of Domestic Wastewater to be: Domestic Wastewater means the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household dishwashing facilities and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as offices, retail stores and some restaurants. Domestic wastewater may include incidental RV holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as an RV dump station. Typical domestic wastewater will have a 30-day average concentration of biochemical oxygen demand (BOD) less than 300 milligrams per liter (mg/L) or total suspended solids (TSS) less than of 300 milligrams per liter (mg/L) prior to the septic tank or other OWTS treatment component. Domestic wastewater does not include high strength wastewater or wastewater from industrial processes. Also referred to as “Black water”.</p>	<p>Comment noted. Definition has been revised differently than this comment, but to be consistent with the OWTS Policy.</p>	Y	<p>Section 3  <u>Domestic Wastewater means the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household dishwashing facilities and garbage disposals. Domestic wastewater may include wastewater from commercial buildings such as offices, retail stores and some restaurants. Domestic wastewater may include incidental recreational vehicle (RV) holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as an RV dump station. Typical domestic wastewater will have a 30-day average concentration of BOD less than 300 milligrams per liter or total suspended solids (TSS) less than of 300 milligrams per liter prior to the septic tank or other OWTS treatment component. Domestic wastewater does not include high strength wastewater or wastewater from industrial processes. means wastewater with a measured strength less than high-strength wastewater and is the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures, appliances and other household devices including, but not limited to toilets, bathtubs, showers, laundry facilities, dishwashing facilities, and garbage disposals. Domestic wastewater may include wastewater from commercial building such as office buildings, retail stores, and some restaurants, or from industrial facilities where the domestic wastewater is segregated from the industrial wastewater. Domestic wastewater may include incidental RV holding tank dumping but does not include wastewater consisting of a significant portion of RV holding tank wastewater such as at RV dump stations. Domestic wastewater does not include wastewater from industrial processes.</u></p>
266	Johnson	3	G	<p>Revise definition of Graywater System to be: Graywater System is a system designed to collect graywater and transport it out of the structure for distribution in an irrigation or dispersal field to conserve water by facilitating greater reuse of non-potable alternate water sources. A graywater system may include tanks, valves, filters, pumps or other appurtenances along with piping and receiving landscape. There are 3 types of Graywater systems: Clothes Washer, Simple and Complex Systems.</p>	<p>The graywater definition is being revised to be consistent with the definition contained in the 2016 CPC.</p>	Y	<p>Section 3  <u>Graywater means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. “Grawywater” includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubes, but does not include wastewater from kitchen sinks or dishwashers.</u></p> <p><u>Graywater is untreated household wastewater that 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 does not include wastewater from kitchen sinks, dishwashers or laundry water from soiled diapers.</u></p>

267	JJohnson	3	O	Revise definition of Operating Permit to be: Operating Permit is a renewable and revocable permit to operate and maintain Commercial standard systems with flows > 1500 gpd, nonstandard experimental or alternative OWTS in compliance with specific operational or performance criteria stipulated by PRMD or the regulatory authority.	Comment noted. Definition has been revised, but differently than this comment.	Y	Section 3 Operating Permit is a renewable and revocable permit to operate and maintain non-standard experimental or alternative OWTS <del>in compliance with specific operational or performance criteria stipulated by Permit Sonoma or the regulatory authority.</del>
269	JJohnson	3	P	Pretreatment is a National Sanitation Foundation (NSF) 40, <del>and/or NSF 245</del> and NSF 350 (listed/certified) and County approved Advanced Treatment Unit that provides pretreatment of wastewater to reduce 5 day biochemical oxygen demand, total suspended solids, nitrogen, and/or the total and fecal coliform content to improve the wastewater quality prior to dispersal. <i>(this all depends on acceptance of NSF Standard 350 in the Water Reuse section)</i>	Pretreatment definition has been modified as proposed and eliminates the references to subsection of NSF.	Y	<del>Pretreatment</del> is an NSF <del>a National Sanitation Foundation 40 and/or NSF 245 (listed/certified)</del> listed and or certified and County approved Advanced Treatment Unit that provides pretreatment of wastewater to reduce 5-day BOD, TSS, <del>biochemical oxygen demand,</del> total suspended solids, nitrogen, and/or the total and fecal coliform content to improve the wastewater quality prior to dispersal.
272	JJohnson	3	P	Add the following definition: <b>Performance standard, operation-based:</b> specific, measurable, & enforceable standard that establishes minimum frequency of & requirements for operation & maintenance activities & reporting the operational status of a system;	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
273	JJohnson	3	P	Add the following definition: <b>Performance standard, water quality-based:</b> specific, measurable, & enforceable standard that establishes limits & measurement frequency for pollutant concentrations or mass loads in treated wastewater discharged to groundwater or surface water	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
274	JJohnson	3	P	Add the following definition: <b>Performance standards:</b> minimum performance criteria established by the regulatory or proprietary authority to ensure compliance with the public health & environmental goals of the state or community	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
270	JJohnson	3	S	“Simple System”, should be “Simple Graywater System” to be consistent with “Complex Graywater System”	Definition has been modified to include the word “graywater.”	Y	<b>Simple Graywater System</b> is a graywater system serving a one or two family dwelling with a discharge of 250 gallons per day or less. Simple Systems exceed a Clothes Washer Graywater System.
275	JJohnson	3	S	Add the following definition: <b>Septic tank effluent gravity (STEG):</b> collection system that uses septic tanks to separate solids & allow gravity flow of effluent to a subsequent component	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	

276	JJohnson	3	S	Add the following definition: <b>Septic tank effluent pump (STEP):</b> collection system that uses septic tanks to separate solids & incorporates a pump vault, a pump & associated devices to convey effluent under pressure to a subsequent component.	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
277	JJohnson	3	S	Add the following definition: <b>Struvite:</b> Struvite is the common name for magnesium ammonium phosphate hexahydrate (M-A-P), a slow-release fertilizer that can be produced from urine.	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
278	JJohnson	3	T	Add the following definition: <b>Toilet, chemical:</b> waterless toilet with a tank that contains a chemical to limit decomposition of non-water-carried human waste during storage prior to offsite treatment.	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
279	JJohnson	3	T	Add the following definition: <b>Toilet, composting:</b> self-contained waterless toilet designed to decompose nonwater-carried human wastes through microbial action on a carbon source & store the resulting matter for further treatment & reuse/disposal. <i>see also toilet, waterless.</i>	A definition for composting toilet has been added	Y	<b>Toilet, Composting</b> means a self-contained waterless toilet designed to decompose non water-carried human wastes through microbial action on a carbon source & store the resulting matter for further treatment & reuse/disposal. See Waterless Toilet.
280	JJohnson	3	T	Add the following definition: <b>Toilet, flush:</b> toilet consisting of a bowl (for receiving human waste) and a water-flushing device.	A definition for flush toilet has been added	Y	<b>Toilet, Flush</b> means a toilet consisting of a bowl for receiving human waste and a water-flushing device.
281	JJohnson	3	T	Add the following definition: <b>Toilet, pit:</b> self-contained waterless toilet used for disposal of non water-carried human waste; consists of a shelter built above a pit in the ground into which human waste falls.	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
282	JJohnson	3	T	Add the following definition: <b>Toilet, portable:</b> <i>see toilet, chemical. (mentioned and use described in policy 9-2-31 Sizing of Onsite Wastewater Disposal Systems for Special Events Authorized by Use Permits and the use of Portable Toilets</i>	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
283	JJohnson	3	T	Add the following definition: <b>Toilet, vault:</b> waterless toilet mounted on a vented holding tank designed to store non-water-carried human waste prior to offsite treatment.	A definition for a waterless toilet has been added.	Y	<b>Toilet, vault:</b> waterless toilet mounted on a vented holding tank designed to store non-water-carried human waste prior to offsite treatment.
284	JJohnson	3	T	Add the following definition: <b>Toilet, waterless:</b> toilet specifically designed to receive non-water-carried human waste; includes composting, incinerator, pit, chemical & vault toilets.	A definition for a waterless toilet has been added.	Y	<b>Toilet, Waterless</b> means a toilet specifically designed to receive non-water-carried human waste; includes composting, incinerator, pit, chemical & vault toilets.
285	JJohnson	3	U	Add the following definition: <b>Urine-separating device:</b> toilet fixture designed to separate urine from other waste materials.	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	



286	JJohnson	3	W	Add the following definition: <b>Wastewater reclamation:</b> treatment or processing of wastewater to produce water of a quality appropriate for another use, including recycling or reuse; <i>see also wastewater recycling &amp; wastewater reuse.</i>	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
287	JJohnson	3	W	Add the following definition: <b>Wastewater recycling:</b> reclamation process of collection & treatment of wastewater on-site for return & use back into the same site; for example, collection & reclamation of graywater from an establishment for subsequent toilet flushing in that same establishment; <i>see also wastewater reuse.</i>	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
288	JJohnson	3	W	Add the following definition: <b>Wastewater reuse:</b> reclamation process of collection & treatment of wastewater for the deliberate application of that treated wastewater for a beneficial purpose such as turf irrigation; <i>see also wastewater recycling.</i>	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
289	JJohnson	3	W	Add the following definition: <b>Water conservation:</b> management of water resources so as to eliminate waste or maximize efficiency utilizing such methods as using the same water again before it becomes wastewater, installing water-efficient plumbing, or wastewater recycling & reuse.	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
290	JJohnson	3	Y	Add the following definition: <b>Yellow water:</b> isolated waste stream consisting of urine collected from specific fixtures & not contaminated by feces or diluted by graywater sources; <i>see also urine separating device.</i>	This definition is not currently used in the OWTS Manual and therefore is not being added at this time.	N	
291	JJohnson	4	4	Add the following section to 4.2.C.13: Waiver for Wine, Beverage, and Food Processing Facilities Processors with comingled waste.	Comment noted. The State has not prohibited this type of dual system.	N	
157	JTyler	6	6	Guest houses do not appear to be addressed. In most cases a guest house would be increasing bedrooms/wastewater flow and would require a code compliant system. However, in some cases a bedroom swap is proposed where a bedroom is decommissioned in the main SFD to accommodate the bedroom gain in the guest house and an existing non-conforming system is sufficient. Guest houses should be addressed somewhere in this section.	A guest house has been added under revised section 6.4.E and includes two options – increase in bedrooms and a bedroom swap.	Y	Section 6 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 6.  Sections specific to this comment: Section 6.4.E

93	KBunte & DByrne	6.8	6.8	<p>Thank you for hosting the OWTS review session today, it's a shame we didn't have the time to review more of it.</p> <p>Regarding the need for reserve area to be identified if the property is heavily encumbered, Dan and I had a suggestion for section 6.8:</p> <p style="padding-left: 40px;">Site evaluation and designation of code-compliant reserve area shall not be required for: (1) Parcels with &lt;50% encumbrance or at least two acres of unencumbered land potentially suitable for an OWTS, or (2) proposed development is within the existing encumbered area not suitable for sewage disposal due to natural conditions (creeks, grade breaks, slopes &gt;30%, etc.).</p> <p>The thinking behind this is that large lots which may be heavily encumbered (by structures, driveways, wells, creeks, steep slopes, etc) but still have more than enough room for a potential reserve field don't need to conduct a site evaluation. It would also address the fact that new development within the encumbered area could be allowed because it would not be adversely affecting the potential reserve area.</p>	<p>Agree with (2): Development with an encumbered area should not count twice for additional encumbered area.</p> <p>Section 6.8 was renumbered to be 6.7.</p>	Y	<p>Section 6.6.A.1</p> <p>2. The percent land encumbrance shall be determined. The percent land encumbrance is determined by dividing the encumbered land area by the total land area of the subject parcel. <u>Development within an existing encumbrance shall not be counted twice. For example, a structures footprint within a well setback shall not be added to the encumbered land area.</u></p>
24	LKondratieff	1	General	<p>I listened to the meeting at the Veteran's Hall on 09/26/2018 and have to agree with the majority. We as homeowners should not be effected by this as we are not within the hundred feet rule in relation to the Petaluma River. We have had all the perc tests and done the necessary repairs on our properties and have maintained our septic systems without paying the prices that your new proposals are asking. We have managed and maintained our systems for over 30 years. Why should we be effected by this other than giving you just another way to add another increase in our everyday household cost. We are already paying higher cost of living with no increases in our wages. Why should we agree to you stepping into our lives just to add more grief? I am personally appalled that you would think that we as people would be willing to give our already failing congress the right to take or find another way to tax us is yet another way or measure, you call it water and waste control. I call it "BULL".Please opt us out!!!! Stop finding ways to increase our cost of living. Find a way to give back to the people. Instead of taking away, how about rewards programs for maintaining our properties so well for thirty years? We have had our water checked by water treatment facilities in the last three years, because of the mushroom farm contaminants. NOT from our septic.</p>	<p>Comment noted. We agree. The County is not requiring land owners to upgrade their systsems. The County only interacts with land owners if 1) we receive a building permit application; 2) if we receive a septic permit application or 3) receive a complaint regarding a failing system or surfacing effluent.</p>	N	
184	LUAP TAC	2	2	<p>Outside sewer service agreement-would like information of this process</p>	<p>See SAN-004. Outside Service Area Agreements are for connections to a sanitation system and are not an on-site septic system and theffore not included in this manual.</p>	N	

229	LUAP TAC	3		Define what a "#189 electrical inspection is.	Section 4.12 (now section 4.10) has been revised to clarify the inspection process and eliminated the #189 reference to an electrical inspection and refers to a final electrical inspection.	Y	<p>4.10 <u>OWTS Permit Implementation and Construction Inspections</u></p> <p>H. <u>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 Registered Environmental Health Specialist 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 or the Permit Authority 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 system components and construction shall be inspected by Permit Authority staff for compliance with approved plans and this OWTS Manual. The following construction inspections are required. and shall be scheduled with the Permit Authority. The Permit Authority may waive attendance.</u></p> <ol style="list-style-type: none"> <li>1. Pre-construction consultation <del>site inspection.</del></li> <li>2. Gravel placement, trenches or absorption bed should be level in previously approved proper location and placed on contour.</li> <li>3. Interim inspections, including squirt test <u>and performed prior to covering any elements of the system</u>-water tightness test of tank(s), if required.</li> <li>4. <u>Startup inspection for pretreatment unit with Service Provider present, if applicable.</u></li> <li>5. <u>Final electrical inspection of associated building/electrical permit, if applicable.</u></li> <li>6. Final inspection of the completed system. <del>(May require #189 electrical permit prior to final. Startup inspection for pretreatment unit includes Service Provider.)</del></li> </ol>
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225	LUAP TAC	3	B	Omit definition of “Best Available System”. No longer applicable.	Edit made. “Best Available System” definition omitted.	Y	Section 3 <del>Best Available System. See Class I Non-Conforming OWTS.</del>
226	LUAP TAC	3	B	Omit definition of “Best Practical System”. No longer applicable.	Edit made. “Best Practical System” definition omitted.	Y	Section 3 <del>Best Practical System. See Class II Non-Conforming OWTS.</del>
227	LUAP TAC	3	C	Consider revising definition of “Community System” for greater clarity.	Revised definition.	Y	Section 3 <u>Community System means an OWTS that accepts wastewater from buildings or structures on two or more parcels or an OWTS shared by buildings or structures under separate ownership whether or not they are on the same Parcel. A community OWTS may be either privately or publicly owned or operated.</u>  <del>Community System is a decentralized OWTS that serves multiple structures, multiple wastewater discharge sources and/or multiple parcels of land under separate ownership.</del>
223	LUAP TAC	3	D	Update “Dual Drain Field” definition to include reference to 75% capacity.	Edit made. Definition revised to include reference to 75% capacity of each drain field.	Y	Section 3 Dual Drain field is an effluent dispersal system consisting of two primary drain fields, <u>each designed at 75 percent of total design flow,</u> connected by an accessible diversion valve and intended for alternating use on an annual or semiannual basis.
231	LUAP TAC	3	E	Add a definition for “effluent”.	Edit made. “Effluent” definition added.	Y	Section 3 <u>Effluent means sewage, water, or other liquid, partially or completely treated or in its natural state, flowing out of a septic tank, aerobic treatment unit, dispersal system, or other OWTS component.</u>
187	LUAP TAC	3	G	Gray water	The graywater definition is being revised to be consistent with the definition contained in the 2016 CPC.	Y	Section 3 <u>Graywater means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. “Graywater” includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubes, but does not include wastewater from kitchen sinks or dishwashers.</u>  <del>Graywater is untreated household wastewater that 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 does not include wastewater from kitchen sinks, dishwashers or laundry water from soiled diapers.</del>

219	LUAP TAC	3	H	Update definition of “Hydrometer Analysis” to clarify hydrometer test should be in reference to soil particle distribution.	Edits made. Hydrometer Analysis references ASTM D 7428.17 standard.	Y	Section 3 Hydrometer Analysis is a test used to determine the grain size distribution of soils passing the number 200 sieve ( <u>ASTM D 7928-17</u> ).
221	LUAP TAC	3	N	Provide a definition for “NSF”.	Edits made. Definition provided, Acronym identified.	Y	Section 3 <u>NSF means NSF International (a.k.a. National Sanitation Foundation), a not for profit, non-governmental organization that develops health and safety standards and performs product certification.</u>
224	LUAP TAC	3	O	Revised definition of “Code Compliant OWTS” to include allowances for variances.	Edit made. Definition revised to include variances and re-alphabetized.	Y	Section 3 <u>OWTS, Code Compliant means an OWTS system that is in conformance with this OWTS Manual. A Code Complaint OWTS can be new or existing and may include variances.</u>
228	LUAP TAC	3	O	Revise “Non-Conforming OWTS” definition to include septic systems constructed pre-code.	Edit made. “Non-Conforming OWTS” definition revised to include septic systems constructed pre-code and re-alphabetized.	Y	Section 3 <u>OWTS, Non-Conforming means an OWTS that has a septic tank and dispersal system and was in compliance with the septic laws, regulations or codes when constructed. OWTS constructed prior to OWTS regulations may be considered Non-Conforming OWTS.</u>
230	LUAP TAC	3	O	Add a definition for “OWTS failure”	Edit made. “OWTS failure definition added.	Y	Section 3 <u>OWTS Failure means effluent is surfacing or sewage is backing up into plumbing fixtures.</u>
233	LUAP TAC	3	O	Update the definition of a “Commercial OWTS” to include OWTS receiving less than 1500 GPD but still connected to a business.	Commercial OWTS has been revised and re-alphabetized.	Y	Section 3 <u>OWTS, Commercial means an OWTS that serves a facility or structure whose occupants are engaged in the buying or selling of goods or services or that serves a facility or structure which is a non-residential occupancy.</u>
232	LUAP TAC	3	R	Update definition of “Reserve Replacement Area” to clarify language: “depth to soil” should be “depth of soil”.	Edit made. Definition updated as suggested.	Y	Section 3 Reserve Replacement Area is an unencumbered portion of land that is reserved for the installation of a future OWTS, in the event of primary OWTS failure. The reserve replacement area must be suitable for an OWTS as demonstrated with acceptable percolation testing, groundwater conditions, and adequate depth <del>to</del> of soil. Reserve Replacement area is sometimes referred to as expansion area.
185	LUAP TAC	3	S	Sidewall	Sidewall definition added.	Y	<b>Sidewall</b> means the wall of a dispersal trench utilized for effluent infiltration with the wall height being measured from the bottom of the dispersal pipe to the bottom of the dispersal trench.

222	LUAP TAC	3	S	Update "Soil Survey" definition to reference USDA Soil Survey.	Edits made. "Soil Survey" definition updated.	Y	Section 3 Soil Survey is a general term for the systematic examination of soils in the field and in the laboratory. This would include the soil description and classification, the mapping of kinds of soil, and the interpretation of soils for many uses such as suitability for growing various crops, grasses, and trees, for engineering uses, and predicting the soil behavior under different management systems. <u>Most notable and common reference used is the USDA National Resources Conservation Service Soil Survey.</u>
220	LUAP TAC	3	U	Provide a definition for "USDA".	Edits made. Definition provided, Acronym identified.	Y	<u>USDA means the U.S. Department of Agricultural.</u>
254	LUAP TAC	4.10	4.10.A	Delete the minimum scale requirements.	Comment noted. The language there to establish a minimum standard for clarity, legibility, and consistency. Old Section 4.10.A replaced by new Section 4.9.B.	N	
255	LUAP TAC	4.10	4.10.A.10	Delete "neighboring systems" language.	The location of other nearby OWTS is needed to verify setback or potential cumulative impact standards.	N	
261	LUAP TAC	4.11	4.11.A.2	If there's a change to the building location that would impact the OWTS location then shouldn't the building permit and the OWTS permit be reconciled?	Edits made. Section 4.11 covers permit transfer requirements which have been moved to new Sections 4.8.H, 4.10.D, 4.10.E, and 4.10.G. The building permit revision process already addresses situations of building location changes with reference to location of the OWTS.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.8.H. Section 4.10.D Section 4.10.E Section 4.10.G
193	LUAP TAC	4.12	4.12.A.3	Change "any" to "relevant" elements	Agreed. Section 4.12 has been edited to read as shown.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.12.
247	LUAP TAC	4.12	4.12.A.3	Consider revising language regarding "covering any elements".	Edits made. Language referencing "covering any elements" omitted from old Section 4.12.A.3 and generally addressed in new Section 4.10.C.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.10.C.

256	LUAP TAC	4.12	4.12.A.4	Consider revising language to clarify which inspections are required when.	Edits made. Required inspections language revised under new Section 4.10.C.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.10.C.
260	LUAP TAC	4.12	4.12.B	Consider revising language regarding “covered” work prior to inspection to allow cases when covering work prior to inspection may be necessary.	Edits made. Language referencing “covered” work prior to inspection generally addressed in new Section 4.10.C.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.10.C.
194	LUAP TAC	4.13	4.13.A	Subdivision Ordinance and Conditioned Oct 1971 (look up date of ordinance)	In 1971 Sonoma County Env Health created the 200% reserve or expansion area standard for new parcels created after the rule making and the 100% area of existing parcels or parcels created before the rule making.  The thinking was that systems last for roughly 30-40 years and with three systems, the original system could rest for 70-80 years before coming back to re-use that land area. This allowed for the structure to remain on the landscape and have a working septic system in perpetuity.  Env Health recognized existing parcels could not always achieve 200% and in light of this and concern of the County taking property rights imposed the 100% expansion area requirement.	N	
195	LUAP TAC	4.13	4.13.A	Add for new construction	Reserve area applies to existing developed parcel as well.	N	

262	LUAP TAC	4.13	4.13.E	Consider revising language requiring Permit Authority approval for any changes and allow as-builts for minor changes.	Edits made. Language revised to omit Permit Authority approval and added language stating that the permittee assumes the risk of construction without Permit Authority approval.  Further language addressing revisions and field changes (including allowing as-builts for minor changes) added in new Sections 4.8.H and 4.10.G, respectively.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.11.E Section 4.8.H Section 4.10. G
259	LUAP TAC	4.13	4.13.J	Consider revising “not used” language and apply a more specific standard such as occupancy.	Section 4.13.J has been removed. Older homes can reuse older, existing systems upon demonstrating the viability of those systems.  Evaluating older OWTS is predicated on building improvements or site improvements, not on use or occupation of a residence.	Y	Section 4.13.J J. <del>Any structure not used within the last 5 years shall have an OWTS that meets current standards for a new OWTS system.</del>
188	LUAP TAC	4.2	4.2.A	Legal entity for management “may be approved on a case by case basis”	Section 4.2.A has been moved out of 4.2 Prohibitions and added back as new section 4.12.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.2 Section 4.12
234	LUAP TAC	4.2	4.2.C.5	Consider using a value less than 0.7	This is a prohibition from the State’s OWTS Policy. Edit not made. Cannot deviate from OWTS Policy standard.	N	
189	LUAP TAC	4.2	4.2.C.8	See 2017 Condition Waiver-conditional waiver does not cover “new”	Comment noted. The conditional waiver is a state order. County has not authority over the conditional waiver.	N	



190	LUAP TAC	4.3	4.3.C	Refer to RWB Order Number-verify how to measure vertical distance to groundwater; for new vs. existing	RWB Order Number has been referenced.  Section 7.5 addresses how to determine groundwater elevation.	Y	Section 4.3.C C. To mitigate prohibition 4.2.C.8 and 4.2.C.9 (vertical separation to groundwater), the owner shall file a Notice of Intent with the appropriate <del>RWQCB Regional Water Board</del> for waste discharge requirements, waiver of waste discharge requirements or a conditional waiver of waste discharge requirements. For the <u>North Coast RWQCB, apply under Order No. R1-2017-0039.</u>
237	LUAP TAC	4.3	Table 4.3	Revise soil cover minimum to account for all system type standards.	Table is correct and summarizes the treatment standards for OWTS in close proximity to water sources.	N	
236	LUAP TAC	4.4	4.4.A.6	Omit language. Not necessary as process is already captured through project conditions of approval and recorded documents and designer type requirements already captured in table 4.4.	Agreed.	Y	Section 4.4.A.6 <del>6. Any parcel that was conditioned through the Project Review Advisory Committee or comparable land use body to have the OWTS designed by a Qualified Consultant that serves a parcel for which a Qualified Consultant design was a condition of a subdivision shall be designed by a Qualified Consultant.</del>
245	LUAP TAC	4.7	4.7.A.5	Consider revising "results" language to reference deliverable of field work.	"Results" is the appropriate term for deliverable. Old Section 4.7.A.5 replaced by new Section 4.7.C.6.	Y	Section 4.7.C.6 (revised) 6. Soil profile <u>evaluation</u> results.
246	LUAP TAC	4.7	4.7.A.6	Consider revising "results" language to reference deliverable of field work. Revise grammar to clarify when required.	"Results" is the appropriate term for deliverable. Old Section 4.7.A.6 replaced by new Section 4.7.C.7. Grammar edits made.	Y	Section 4.7.C.7 (revised) 7. Soil percolation test results <del>if required</del> per Section 7, <u>if required</u> ;
	LUAP TAC	4.7	4.7.A.7	Revise grammar to clarify when required.	Edits made. Old Section 4.7.A.7 replaced by new Section 4.7.C.8	Y	Section 4.7.C.8 (revised) 8. Groundwater table determination <del>if required</del> <u>results per</u> Section 7, <u>if required.</u>
253	LUAP TAC	4.7	4.7.A.8	Consider revising scale requirements.	Edits made. Scale requirements apply more to site plan versus OWTS design. Old Section 4.8 consolidated into new Section 4.7.	Y	Section 4.7.C.4 (revised) 4. <u>Four copies of site plans.</u> <del>8. 4 copies of the OWTS design, drawn to a scale of 1 inch equals 20 feet.</del>

249	LUAP TAC	4.7	4.7.A.9	Consider revising language to clarify when required.	Edits made. Language revised for clarity Old Section 4.7.A.9 replaced by new Section 4.7.C.10.	Y	Section 4.7.C.10 10. The following <del>are</del> <u>is</u> -required prior to issuance of a Non-standard OWTS permit but may be submitted with the Non-standard OWTS Application:  a. <u>A complete</u> Operational Permit application. b. <u>Signed and notarized Agreement Permit Conditions Agreement, signed and notarized;</u> c. <u>Signed and notarized Easement Agreement, signed and notarized;</u> <del>d. Items a through c are not required for plan check only applications, but will be required for permit applications.</del>
240	LUAP TAC	4.7	4.7.B	Change “date of application” to “date of PC approval” to recognize delays by department.	Existing language allows for extensions of time including circumstances beyond the control of the applicant which may include excessive delays by department.  Item d. is being added to clarify.	Y	Section 4.7.F.2 d. <u>Other circumstances beyond the control of the applicant.</u>
250	LUAP TAC	4.8	4.8.A.4	Consider revising “results” language to reference deliverable of field work.	“Results” is the appropriate term for deliverable.  Old Section 4.8 consolidated into new Section 4.7.	Y	Section 4.7.C (revised) 6. Soil profile <u>evaluation</u> results.
251	LUAP TAC	4.8	4.8.A.5	Consider revising “results” language to reference deliverable of field work. Revise grammar to clarify when required.	Grammar edits made.  “Results” is the appropriate term for deliverable.  Old Section 4.8 consolidated into new Section 4.7.	Y	Section 4.7.C (revised) 7. Soil percolation test results <del>if required</del> <u>per Section 7, if required.</u>
241	LUAP TAC	4.9	4.9.B.1	Language at end of paragraph referencing repair or replacement permit is not clearer. Consider revising for clarity.	Edits made. Language revised to reference specific sections regarding repair and replacement permits. Old Section 4.9.B.1 replaced by new Section 4.8.B.	Y	Section 4.8.B B. <u>New OWTS Permit. The following work requires an 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 Section 4.8.C or 4.8.D. a repair or replacement permit.</u>

244	LUAP TAC	4.9	4.9.D.1	Revise language to include pipe and trench materials.	Edit made as suggested. Old Section 4.9.D.1 replaced by new Section 4.8.D.1.	Y	Section 4.8.D.1 1. The replacement or repair of a leach line or leach line segment, <u>including pipe and trench materials</u> , within an existing leach line trench;
191	LUAP TAC	4.9	4.9.D.3	Create a separate category where we have design data	Comment noted. A repair permit is based on the scope of work, not if the design data exists.	N	
242	LUAP TAC	4.9	4.9.D.3	Consider increasing the 25% threshold to 100% or 50%.	Comment noted. RWB has indicated 25% is the upper limit.	N	
196	LUAP TAC	5.3	5.3.A	Eliminate that it was "self-disclosed" 48 hours-business days Softer language for Code Enforcement	Comment noted.	N	
192	LUAP TAC	7.5	7.5.G.3	Groundwater-3 year?	Section 7.5.G.3 has been modified to eliminate the three year time period.	Y	Section 7.5.G.3 3. Soil profile readings or observations were made by both a Qualified Consultant and the Permit Authority <del>within the past 3 years</del> <u>and the site conditions have not changed to render the readings or observations invalid.</u>
26	MOrtiz-Koolhoven	1	General	The wastewater treatment online manual will always need to be updated as equipment or SCADA changes with maintenance and updating the system will only better the flow of the planet. Yes, you should hire me to be a part of your team.	Comment noted.	N	
8	MSchwager	12	12	We have had an "experimental" septic system in place for 10 years and it is working quite well. I would like to think that after some time, that PRMD would have enough experience with these systems to re-classify them as accepted and normal septic alternatives. I didn't read through your entire document so maybe that is covered somewhere. Also, there seem to be more good alternatives in the experimental section then when we built. I think the team is applauded for adding these new technologies as they are recognized to be safe and effective.	Our tier 2 lamp allows us to have nonstandard systems with the provision they have oversight or ongoing review and monitoring.	N	
6	MSoiland	1	General	This document is too complex to elicit comments from the community. If the County really wants feedback from the public, they might be able to summarize existing requirements along with proposed changes in a more readable fashion. I am a rural septic owner and am very interested to see what changes are being proposed and how they will impact existing compliant and operable septic systems. I can't tell from the material provided.	Comment noted..	N	

110	MTreinen	3	B	<i>Best Available System &amp; Best Practical System</i> " - Strikeout? Although I think this was a workable program, they are no longer applicable as I understand the overall changes	Agreed.	Y	Section 3 <del>Best Available System. See Class I Non-Conforming OWTS. Best Practical System. See Class II Non-Conforming OWTS.</del>
111	MTreinen	3	C	<i>Clothes Washer System</i> " - Why no pump? They are allowed under "Graywater systems" and provide more flexibility.	CPC definition. Our gray water section refers to CPC for convenience given a gray water system is not considered an OWTS.	N	
112	MTreinen	3	E	<i>"Existing Structure"</i> - As I have noted in previous feedback, this is markedly better than the previous 2 year limitation. However, I have seen circumstances such as dementia, extended illness, overseas deployment, imprisonment etc. that could possibly lead to the lack of occupancy for a longer period. As you have done with other sections in this draft, allow for exceptions to be reviewed by the PRMD Director in unique circumstances. We need housing. What is the downside? This limitation is not required in the State OWTS.	"Exisitng structure" or reutilization is not part of the proposed approach. This definition should be deleted.	Y	Section 3 <del>Existing Structure is one that has been in recent and continuous service. Any structure not in use within the previous 5 consecutive years must meet the standards for a new on-site wastewater treatment system that would apply to a vacant lot. Proof of recent and continuous service means providing pertinent documentation that substantiates the use of the property during the period in question. These documents may include, but are not limited to receipts (for example PG&amp;E, garbage, and water), business records, County or State licenses and permits, deeds, notarized affidavits and dated photographs. (Section 6: OWTS Requirements for Approval of Building Permits)</del>
113	MTreinen	3	L	<i>"Land Encumbrance"</i> - In a number of cases where the 50% benchmark is visually close, a surveyor may be the only professional able to make the calculation, maybe an RCE or with use of a particular software. Although I understand what you are trying to do, it's more time, expense and complexity. Setbacks can be critical, such as 100 feet from wells and creeks. If Table 7.2C (setbacks) is the standard to be used, note that in this definition.	Comment noted.	N	
114	MTreinen	3	O	<i>"Non-Conforming OWTS"</i> - Add "pre-code systems" (pre-1962) where there were no applicable codes at the time of installation. There are many of these still out there.	Edit made. "Non-Conforming OWTS" definition revised to include septic systems constructed pre-code and re-alphabetized.	Y	Section 3 <u>OWTS, Non-Conforming means an OWTS that has a septic tank and dispersal system and was in compliance with the septic laws, regulations or codes when constructed. OWTS constructed prior to OWTS regulations may be considered Non-Conforming OWTS.</u>
115	MTreinen	3	R	<i>Reserve Replacement Area</i> " - Comment: showing soil depth, GW, perc tests, design and calculations could cost the homeowner an estimated \$12-20K, and, in the case of GW, a possible lengthy delay. I'm sure you're aware that even if those items were done with the original design, they are often not available or locatable in the records.	Not all reserve areas were vetted equally. Some have all the site evaluation / design parameters / system design that we can honor, some merely have a location designated on a map.	N	

116	MTreinen	3	S	"Service Provider" - Define NAWT for the reader (National Association of Wastewater Technicians). You may also wish to add NSF (National Science Foundation) which has a similar and even more rigorous certification.	Comment noted. NAWT is now listed in the acrynoms section.	Y	Section 3 <u>NAWT means National Association of Wastewater Technicians.</u>
117	MTreinen	4.7	4.7 A2	"OWTS Permit Applications" - Comment: Having the variance as part of the submittal package could result in delays and added costs if the variance is not approved. Variances can often be open to interpretation, so hopefully experienced staff are available to at least discuss the proposal in advance to increase the odds of a successful variance and thereby total permit package.	Comment noted.	N	
118	MTreinen	4.9	4.9.D.3	The addition of a 25% repair or replacement line at least gives a homeowner some level of affordable option. (More % would be better.) Although I recognize the definition of <i>replacement</i> comes from the evil empire, it's disappointing that a septic system that's often worked for 30-50 years can't be replaced in most cases by an equivalent or better one that, with a diversion valve, should offer at least another 30-50 years. This concept has worked in most cases successfully for decades. Also note that due to low-flow devices, most houses are using 2/3 less water than when most of these systems were installed.	Comment noted.	N	
119	MTreinen	4.9	4.9.E.9	It will be interesting to see if the RWB accepts this concept, although I support it as another option for lower income homeowners. A question with item 9 is this - if a year later this owner, or a new owner, wishes to do the limited construction that is warranted by the now non-conforming system in place, will that be permitted?	No. The concept is to allow a relaxation of standards due to financial hardships.  The intent was to allow for an operational system when the owner could not afford a code compliant replacement system.  This is not intended to be a method to perform building improvements without conforming to the OWTS Manual.	N	
120	MTreinen	4.9	4.9.F.1	Good practical change allowing D-box and tightline repair / replacement w/o permits.	Comment noted	N	
121	MTreinen	5.3	5.3.E	To be technically correct, I suggest changing 48 hours to 48 <i>business</i> hours.	Comment noted.	Y	Section 5.3.E E. Upon receipt of such an application Permit Authority shall conduct a site visit within 48 <u>business</u> hours to verify the extent of the failure and extent of waste discharge.

122	MTreinen	6.1	6.1	Add "windows in existing frames" and "roof framing and sheathing."	Rather than adding additional examples, section 6.1.A was re-written to refer to our policy for building permits without a plan review.	Y	Section 6.1.A A. Building permits without a plan review, <u>pursuant to PRMD Policy No. 4-0-7 Building Permits With No Plan Review</u> , do not require a review by the Well and Septic Section. <del>Following is a list of building permits that do not require a plan review.</del> <u>The following are example building projects that do not require a plan review.</u>
125	MTreinen	6.11	6.11.B.4.d	- Soil evaluations, although good information, cost more money, take more time and don't really relate to how the system itself is currently functioning. Eliminate item "d".	Section 6.11.B.4 lists several options. Evaluation of profile holes is not mandatory.	N	
126	MTreinen	6.11	6.11.B.7	Following "...recent pumpers report" add "or direct observation of the pumping by the Qualified Consultant." Often the owner gets the receipt and it is disconnected from the Findings Report which comes later. (Also one less piece of paper needed).	If there is a direct observation by a Qualified Consultant, there should be an associated receipt.  If land owner had the tank pumped separate from a Findings Report, the odds are low a Qualified Consultant observed the pumping.	Y	Section 6.10.B.7 7. Inspection of all tanks <del>and recent pumper's report (within last 5 years)</del> ; this should ...
127	MTreinen	6.11	6.11.B.8	This is more cost to the homeowner and an added layer of paperwork to the report we're already doing. The owner and PRMD staff are supposed to already be doing them.	Comment noted. Altering the requirement only if the monitoring form is past due.	Y	Section 6.10.B.8 8. A completed monitoring form for nonstandard systems <u>if the monitoring form is past due.</u>
128	MTreinen	6.11	6.11.B.9 & 10	It is not infrequent to find the supporting data for systems either not in the files or very time consuming to trace back through subdivisions and lot line adjustments only to find the data and maps inadequately detailed to make the call - (and often enough the original professional has retired). There is substantial cost to redo all of that when in many cases the year of the approval or some other information may demonstrate the system met standards. Add "Other evidence of code compliance acceptable to the PA may be provided in lieu of missing or inadequate supporting data."	Comment noted.	N	
129	MTreinen	6.12	6.12.D	Fourth sentence: what is "no edits?"	Comment noted. This should read, "... to approximate the same hydraulic loading ..." and not "... to approximate no edits hydraulic loading ..."  Section 6.12 has been revised to be Section 6.11.	Y	Section 6.11.D D. The pump test is conducted by adding sufficient water to the basin to activate the pump "on" control and observing the performance of the system over at least one pumping cycle. The total amount of water added should be about 150 gallons, to approximate <del>no edits</del> <u>the same</u> hydraulic loading ...

123	MTreinen	6.2	6.2.B	Add the words " <i>conforming and...</i> " before "non-conforming". I assume both would be acceptable.	Disagree. The provision reads as a minimum review. A non-conforming system is the minimum, except for building permits to repair damage from a fire, earthquake, tree fall or other disaster.	N	
124	MTreinen	6.8	6.8.C	As I mentioned in "Definitions", this is another area of treating existing homes as new parcels and will result in substantial cost and time at an often questionable cost-to-benefit ratio. There's already a house and wastewater here. Hopefully something less than the <i>Full Monte</i> could get most of the benefit the County is looking for. Perhaps a pre-perc soil exam and then if space for the chosen system type is obvious as supported by the QC, call it a day.	Not all reserve areas were vetted equally. Some have all the site evaluation / design parameters / system design that we can honor, some merely have a location designated on a map, some have no information.	N	
130	MTreinen	7.2	7.2.B	- The last two vertical columns are the same - their related footnotes need to be corrected.	Comment noted. Second column should be for PTE with a footnote referring to footnotes 1 and 2.	Y	Tabel 7.2.B last reads: "PTE <sup>2</sup> "
131	MTreinen	7.3	7.3.B	- In addition to the appointment scheduled in "A", the regs are requesting notification of test <i>preparation</i> . If this is to happen, PRMD needs to be thinking about a simple <i>process</i> for this, preferably one phone # or e-mail site to contact and leave the information re: the consultant, test # and site address.	Comment noted.	N	
132	MTreinen	7.4	7.4	Figure 7.4 This appears to infer the requirement for bulk density for <i>all</i> soils except sand, loamy sand and sandy loam. This has not been past practice, which has been to request it only if compaction is evident or a concern. Again, more cost and time for questionable gain.	Comment noted. Figure 7.4 provides instructions on how to determine the soil classification. Step three requires the bulk-density to determine if a 15 percent adjustment along the clay axis is appropriate or not.	N	
133	MTreinen	7.5	7.5 F.1.c	What is being <i>sampled</i> for?	Iron and manganese are conducive to the oxidation/reduction processes. If there is no soil mottling and no iron/manganese, one could falsely assume groundwater is not present. Client could have the option of sampling for iron/manganese or not use the absence of soil mottling to determine groundwater elevation.	Y	Section 7.5.F.1.c c. <u>If soil mottling is not observable to both the Qualified Consultant and the Permit Authority staff, the client may elect to either conduct soil sampling for iron and/or manganese or pursue another groundwater elevation method.</u> <del>Soil sampling shall be required if soil mottling is not observable to both the Qualified Consultant and Permit Authority staff.</del>
134	MTreinen	7.5	7.5.G.3	- In most cases, the site area will not have changed enough to warrant all new testing. Allow for a case to be made by the QC for a longer time period (> 3 years) with approval by the PA.	Agreed.	Y	Section 7.5.G.3 4. <u>Soil profile readings or observations were made by both a Qualified Consultant and the Permit Authority within the past 3 years and the site conditions have not changed to render the readings or observations invalid.</u>

135	MTreinen	8.6	8.6	- The drawing does not show the geo-textile fabric that is noted as required in 8.6 - A - 6.	Figure 8.6 will be edited.	Y	Geotextile filter fabric has been added to the figure.						
137	MTreinen	9.2	9.2	Provide directional arrows to the features for the many descriptors on the right side of the trench. After <i>backfill</i> and <i>drain rock under pipe</i> , add in parentheses " <i>depth may vary</i> "	Figure 9.2 will be edited.	Y	See revised image.						
136	MTreinen	9.2	9.2.F	Requesting "D" boxes for <i>each</i> line. Formally a minimum of one box was required. Does this now preclude "dam and siphon" construction? If so, state that new proscription clearly.	Comment noted. This is not a new provision. This was contained in the adopted 2016 version.	N							
138	MTreinen	9.3	9.3	You have 9.3 twice with different topics. suggest make A & B or similar	The sections will be re-numbered accordingly.	Y	Done. We have two section 9.3's. Need to renumber the sections.						
139	MTreinen	9.3	9.3.A.1	Somewhat unrealistic in many cases in the real world. Ten feet to GW below the pit = a GW test hole at least 15-16 feet deep. Will this require a well-drilling permit? Picture the technology needed on a typical River area hillside slope not uncommonly too steep to stand on. Think about a reduction in test depth with waiver & pre-treatment.	The groundwater separation for seepage pits is a state standard. Construction of a broing 15 feet or more below ground requires a well permit. However, groundwater elevation is only needed for sites with a slope of 5% or less.	N							
140	MTreinen	9.3	9.3.A.5	- "Fill w/ gravel". Getting gravel down or up a hill by bucket is long and hard on many river area properties. Allow for other PA approved material. For example, <i>Eljen</i> makes bundled plastic cubes with equivalent liquid storage space that is very light that could do the same job. There may be other products. (Similar to concepts in 9.4 - B & C).	Comment noted. If there is a hardship, client can propose a variance.	N							
141	MTreinen	9.6	9.6	Table 9.6 Combined with the requirements in 9.6 - A - 7 thru 9, in some cases the top of the pipe in the table will be at surface grade and the gravel required to cover the pipe will be above grade and into the fill soil. In addition, the first line of the table may conflict with A-9.	Agreed. The first row of Tabel 9.6 is being deleted. If shallower gravel is needed, clients can apply for a variance – see section 9.6.A.9.	Y	<p>Table 9.6 – Filled Land OWTS Trench and Fill Requirements</p> <table border="1"> <thead> <tr> <th>Trench Depth Into Native (inches)</th> <th>Gravel Depth Below Pipe (inches)</th> <th>Fill Material Needed (inches)</th> </tr> </thead> <tbody> <tr> <td><del>12</del></td> <td><del>9</del></td> <td><del>15</del></td> </tr> </tbody> </table>	Trench Depth Into Native (inches)	Gravel Depth Below Pipe (inches)	Fill Material Needed (inches)	<del>12</del>	<del>9</del>	<del>15</del>
Trench Depth Into Native (inches)	Gravel Depth Below Pipe (inches)	Fill Material Needed (inches)											
<del>12</del>	<del>9</del>	<del>15</del>											
142	MTreinen	9.6	9.6 A.16.b	Clarify ripping is to be "to topographic contours".	Agreed. Section 9.6.A.16 is being edited accordingly.	Y	<p>Section 9.6.A.16.c is added to read:</p> <p>C. A single pass 6 inch rip of the surface soil to ensure a good mixing of the native soil and the fill material is required. <u>Ripping shall be parallel to the topographic contours.</u></p>						



143	MTreinen	9.7	9.7.B.6.a	Suggest adding a note for the installer to (at least initially) semi-permanently stake or monument the diversion valve. as inspectors, we frequently find these getting "lost" thus the systems aren't being alternated.	Agreed. Section 9.7.B.6.a also has a typo. Language has been added to include a monument to locate valve in the future.	Y	Section 9.7.B.6 has been revised: 6. Amount of leaching trench required for each primary field will be determined from the number of bedrooms and approved percolation rate.  a. Construct <del>two</del> <u>two</u> primary leachfields divided by an approved diversion valve which can be alternated on at least a yearly basis. b. Each primary field shall be equal to 100 percent of the pre-determined lineal requirement. c. <u>Provide a monument for the diversion valve.</u>
144	MTreinen	13.1	13.1.C.4 &5	Notes setbacks from the BSF are the same as tanks. To have a dispersal unit have the same setbacks as a tank is unusual. Is this correct?	Comment noted. Item 13.1.C.4.k will be deleted. All setback requirements are being consolated in section 7.	Y	Section 13.1.C.4.k: <del>k. The minimum setback requirements for bottomless sand filters are the same as those required for septic tanks.</del>
145	MTreinen	13.1	13.1.D	Add language encouraging masonry BSF boxes for longevity. Like redwood tanks, wooden filter boxes deteriorate over time and replacing them will be more problematic.	Comment noted. The provison says if wood, it shall be pressure treated. Nothing prevents a designer from recommending an alternative.	N	
147	MTreinen	13.2	13.2.C.6	Why is pretreatment limited to packed bed only?	Pretreatment is not limited to packed beds only. It is explicitly required in this instance.	N	
146	MTreinen	13.2	13.2.D	As with plastic chamber leach fields, gopher wire should be placed under any open bottomed chambers. Prior to all of the trenches filling with sewage, gophers will often fill them with dirt.	Agreed. A provision for gopher soil movement similar to 13.2.D.2 will be added.as new item 13.2.D.1.g.	Y	Section 13.2.D.1.g is added to read:  g. <u>All GPDC shall be protected from gopher soil movement.</u>
148	MTreinen	13.6	13.6	Provide a diagram for this system as they exist for most others in this section.	Please refer to Figure 13.5a	N	
149	MTreinen	18	18	The new regs are highly protective of public health. Eliminate all or most of these old policies. They make for more complexity and confusion and the Regional Board doesn't have issues with doing this. For those polices approved by the BOS, clarify to the BOS that their vote includes rescinding the policies as no longer necessary and at least some simplification of the OWTS.	Agreed. The plan is to rescind most of the waiver prohibition areas onces the TMDL implementation plan and the local APMP is approved.	N	
150	MTreinen	20	20	" Item "F" requires quarterly monitoring. I don't think PRMD staff are going to able to effectively handle the high and growing sample volume, lack of compliance, phone calls, problem samples etc. At best, sample results will be warehoused. I suggest quarterly for one year, then if OK, once a year.	Seciton 20.F is from the State's OWTS Policy, Tier 3, section 10.15. Sampling and testing is not required to be submitted to permit authority on the quarterly basis.	N	

151	MTreinen	50	Appendix A	Add "high groundwater" to all or most of the system categories.	Appendix A is a listing of approved systems, not under which site conditions they will be used.	N	
17	NCRWQCB	4.9	4.9.D.3	Repair Permits-How will the county limit the use of the 25% exception so that the homeowner does not incrementally replace the entire or a significant portion of dispersal system over time as a "repair" instead of a replacement?	Section 4.9.D.3 Repair OWTS Permit will be revised to read "no more than 25%, <u>on a cumulative basis</u> , of the total...".  Additionally, section 4.9.C.1 Replacement OWTS Permit has been revised similarly.  Section 4.9 is revised as section 4.8.	Y	Section 4.8.D.3 3. The replacement or repair of no more than 25 percent, <u>on a cumulative basis</u> , of the total linear footage of the existing dispersal system.  Section 4.8.C.4 4. <u>The replacement of a dispersal system greater than twenty five percent (25%) of the total linear footage of the existing dispersal system.</u>
16	NCRWQCB	17	17	Variance Request 15	Section 17, Table 17, Table item 15, will be revised accordingly.	Y	Section 17, Table 15, Item 15: Apply to appropriate Regional Water Board for a set of waste discharge requirements or a <del>conditional</del> waiver of <u>water waste discharge requirements</u> "
	NQuarles	4.2	4.2.A	Move "shared in common" from prohibited and create criteria for approval	Agreed. Section 4.2.A has been deleted and this provision has been revised as section 4.12 Community Systems.	Y	Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.  Sections specific to this comment: Section 4.2 Section 4.12
15	NQuarles	4.6	4.6.E	Refer to Section 16, not Section 15	Comment noted. Section 4.6.D has been renumbered to be section 4.6.G.	Y	Section 4.6.G G. Refer to Section <del>15</del> <u>16 Subdivisions and Lot Line Adjustment Requirements</u> for OWTS easement requirements for new subdivisions of property.
3	NQuarles	4.9	4.9.E.4	Increase AMI to 120%	The landowner's household income is at or below 120 percent of the current Area Median Income (AMI) established by the U.S. Department of Housing and Urban Development.  Section 4.9 revised as Section 4.8.	Y	Section 4.8.E J. The landowner's household income is at or below <del>80 percent</del> <u>one hundred twenty percent (120%)</u> of the current Area Median Income (AMI) established by the U.S. Department of Housing and Urban Development;
18	NQuarles	6.1	6.1.B	Add Section 6.1.B for building permits related to catastrophic loss, acts of God, untoward events, fire, trees, etc.	Agreed. Section 6.1.B has been added.	Y	Section 6.1.B B. <u>Building permits with a plan review for a structure that received damage from a declared disaster, earthquake, fire, flood, tree damage, or other untoward event do not require a review by the Well and Septic Section. Building permits must be applied for within five (5) years of the catastrophic or damaging event.</u>

19	NQuarles	6.4	6.4	Add language to Section 6.4.D for bedroom swaps	Agreed.	Y	Section 6.4.C, second paragraph:  Applicant has the option to connect the ADU to the existing septic system serving the primary dwelling unit provided the existing septic system is code compliant and has capacity for the ADU waste flow or to construct a new code compliant septic system for the ADU. <u>This category may also include a bedroom swap between the existing primary dwelling and the proposed ADU.</u>
292	NQuarles	12.4	12.4	Criteria for Alternative systems. There is some clarity needed regarding whether or not if all the criteria within section 12.4 apply or if only one of the criteria needs to be met. All four must be met to apply for an alternative system status.	Section 12.4.A will be revised to clarify that all four criteria are needed.	Y	Section 12.4.A  A. An Alternative OWTS shall meet <u>all of</u> the following requirements:
2	NQuarles	13	13	Remove listing of pretreatment units on last page of section  And instead reference Appendix A (Permit Sonoma WLS-042) where the list will be referenced and updated.	Deleting the Experimental Pretreatment Units and Alternative Pretreatment Units listed in section 13.8 and creating a reference to these in Appendix A	Y	Section 13.8.D  C. <u>Appendix A contains a list of approved pretreatment systems. Appendix A will be updated annually.</u>
21	PGang	1	General	I am an architect and a property owner. I have interacted with Well and Septic many times over the last 25 years. Following last night's (9/26/18) meeting at Petaluma Veteran's Hall, I wish to offer the following three comments:  1. One significant variable affecting the longevity of any OWTS is how the system is used. Both types of effluent introduced in to the system and the volume of effluent affect the longevity and likelihood of failure. I understand that the County isn't interested in telling people how to live their lives, but I see no harm in making this kind of information widely available to the good citizens of the County.	Comment noted.. Good practical idea.	N	
22	PGang	1	General	2. If our ultimate goal in updating septic regulations is to safeguard human health and safety, we would strive to make it as easy as possible to comply with them. In contrast, as regulations become more onerous (or are perceived as being more onerous!), greater numbers of individuals choose to circumvent them (doing work without the benefit of permits), often resulting in lower levels of health and safety. In many cases, we end up achieving results exactly the opposite to those originally intended.	Comment noted. And this is why we have revised the policies surrounding when the well and septic section reviews building permit applications.	N	
23	PGang	1	General	3. I sensed widespread discontent at last night's meeting. I would encourage staff to be attentive to both comments and to the underlying sentiment of the public, rather than being dismissive or responding with argument.	Comment noted.	N	

27	PMyers	1	General	I would like to see a specific policy for compost privy systems in single family units.	Comment noted. A draft section for waterless toilets will be included in the OWTS Manual	Y	Section 21 is being added and is attached.
11	RGirard	3	A	Remove duplicated Advanced Treatment Unit	Comment noted.	N	
13	RGirard	4.10	4.10	When referencing “scaled drawings”, use the word minimum	Comment noted. Section 4.10 requires site plans drawn to a scale with a minimum of 1 inch = 20 feet.	N	
12	RGirard	4.2	4.2.B.2	Change “sewering agency” to sanitation district	Editing section 4.2.B.2 to change the language from “sewering agency” to “sanitation district.”	Y	Section 4.2.B.2 2. the proposed use is within a sewer service area, sewers are under construction and completion is expected within two years and the <del>sewering agency</del> <u>sanitation district</u> assumes responsibility for maintenance of the tanks; or
14	RGirard	12.3	12.3	Add the word “Approval” to the Section title	Comment noted.	Y	12.1 Experimental OWTS <u>Approval</u> Process
4	RGirard	13	13.2.C.6	Change “Administrative Authority” to appropriate entity.	The use of “Permit Authority” should be used consistently through the document.	Y	Section 13.2.C.6  6. All GPDC Systems require an approved packed bed media filter supplemental treatment unit for treating septic effluent. The level of supplemental treatment must comply with NSF Standard 40 or to the satisfaction of the <u>administrative permit</u> authority.
5	RGirard	13.3	13.3.B.1. b	Clarify sentence “a. Presoak remaining in 24 inch deep percolation test holes may indicate lack of soil depth.”	Comment noted.	N	
5	RGirard	13.8	13.8.C.1	Clarify the liquid waste specialist.	Comment noted. Edits clarifying the use of the terms “Permit Authority” and Permit Authority staff were made throughout the document.	Y	
1	RGirard	17	17	Correct redundancy included in Sections A & C and reword as follows:	Provision 17.C seems redundant with 17.A. Delete 17.C to eliminate redundancy.	Y	Section 17.2 <del>D. The Permit Authority shall review the variance request(s) for a site development, evaluating the proposed variance mitigation measure(s) for consistency with the public health/water quality protection intent of the OWTS standards.</del>

107	RGoldstein	4.13	4.13.A	<p>Lastly, on the issue of reserve leach field sizing, it is my understanding that Sonoma County is in the minority of jurisdictions that require a 200% reserve. It is further my understanding that a “worn out” or “failed” leach field can recover over time (say while the reserve area is being used). One explanation I have been given for the 200% reserve requirement is that people sometimes build over their reserve area or pave it, and that the 200% leaves a “margin for error”. If this is indeed the reason, or one of the major reasons, it seems inappropriate to penalize the vast majority of law abiding residents for the actions of a few. If they don’t have sufficient reserve area they did that to themselves and can mitigate with more advanced treatment methods, or potentially devalue their properties. If the majority of other jurisdictions follow the 100% reserve policy then this would a good opportunity for fact based, solution oriented policy making, with substantial benefits to county residents</p> <p>As an example of the margins and safety factors currently in place (on top of the soil safety factors and the reality that very few homes have 2 people in each and every bedroom, though I understand the need to be prepared for that possibility, so am not proposing that this change) for new development, with the current policy is 120 gallons per bedroom x 3 (initial field plus 200% reserve), the land required would be 360 “units” vs 75 gallons per bedroom x 2 (initial field and 100% reserve), or 150 “units” or a factor of 240% (2.4x). There certainly seems to be room for some modifications here.</p>	<p>In 1971 Sonoma County Env Health created the 200% reserve or expansion area standard for new parcels created after the rule making and the 100% area of existing parcels or parcels created before the rule making.</p> <p>The thinking was that systems last for roughly 30-40 years and with three systems, the original system could rest for 70-80 years before coming back to re-use that land area. This allowed for the structure to remain on the landscape and have a working septic system in perpetuity.</p> <p>Env Health recognized existing parcels could not always achieve 200% and in light of this and concern of the County taking property rights imposed the 100% expansion area requirement.</p> <p>Staff have recognized the water use savings from the California Plumbing Code and have reviewed the appropriate sections of the OWTS Manual.</p>	N	
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106	RGoldstein	4.5	<p>There are also various water use calculators available online <a href="http://www.csgnetwork.com/waterusagecalc.html">http://www.csgnetwork.com/waterusagecalc.html</a> which I have used to verify the reasonableness of that forecast as well as recreating that calculator myself in excel</p> <p>Assuming the conservative approach to 2 people in each and every bedroom. [There were 2.77 people in each household in the 1999 study and 2.65 in the 2016 study. I don't have the average # of bedrooms for the SFD in the study, but an average of 3 would seem reasonable, so less than one person per bedroom]. Even in this case an efficient house would use 73.4 gallons per bedroom (2 x 36.7) vs the 120 gallons per bedroom currently set as the design standard (63% larger than an efficient house with 2 people per bedroom). In addition, it is my understanding from talking to various civil/septic engineers that there is also a substantial safety factor built into the soil numbers, and that the soil loading calculations are based on the single worst percolation reading which can another layer of safety factor.</p> <p>From a policy perspective, it would seem that the new development should easily qualify for the 73,4 (say 75) gallon per bedroom, but it could be interesting to reduce the requirement perhaps to the same, or another lower than 150 gpd number, for existing homes that want to build ADUs or additional bedrooms if they are sized based on 150 gpd and install low flow fixtures and appliances (all of which can be verified). This has the added advantACe of creating more housing and providing positive incentives for people to upgrade their households to lower water consumption. This would be a great example of a holistic approach to achieving more than one policy goal. This would certainly help v/v the housing situation. A number of people at the hearing wanted to add ADUs, but were frustrated with the need for a 40-50k investment. What I often hear is that the county has tried to manage growth through septic policy (I don't know, just what I have heard from multiple people). This is really an area that the General Plan addresses.</p>	<p>Staff have recognized the water use savings from the California Plumbing Code and have revised the appropriate sections of the OWTS Manual.</p> <p>Low flow requirements started in 1990 and became fully required with explannations in the 1998 UPC.</p>	Y	<p>Section 4.5</p> <p>A. Residential wastewater flows used for design of OWTS for <u>new</u> single family residences, ... bedrooms multiplied by a factor of <del>150</del> <u>120</u> gallons per day per bedroom for the first 5 bedrooms, plus <del>75</del> <u>60</u> gallons per day for each additional bedroom, ...</p> <p>D. Reductions of wastewater design flows up to 20 percent for <u>dwelling units constructed prior to 1998</u> shall be approved by the Permit Authority when each of the following is provided:</p> <p>Table 4.5 – use 120 per bedroom throughout table.</p>
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106	RGoldstein	4.5	RGoldstein	<p>1. Leach Field and Reserve Field Sizing perhaps the biggest opportunity to create major benefits to residents of the county, while simplifying the process at PRMD, and providing incentives for water efficiency and opening more opportunities for housing/ADUs</p> <p>a. The sizing of leach fields is based upon 150 gallons per bedroom with a 20% credit for new construction due to water saving fixtures (120 gallon per bedroom, which has a number of strings attached to it). It is my understanding that these numbers were adopted a number of years ago. In the meanwhile there has been even more movement to low water fixtures and appliances, both in the plumbing code and in the marketplace.</p> <p>For the fact based back up, please see the Water Research Foundation Report “Residential End Uses of Water Version 2” , link to executive summary included here (coincidentally, it is also posted on the waterboards website) <a href="https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/NRDC_TBI_DOW/NRDC-10.pdf">https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/NRDC_TBI_DOW/NRDC-10.pdf</a> This is a 2016 update of their 1999 study, covering over 1,000 single family residences in 23 water utilities, and looked at indoor use by fixture/appliance (as well as outdoor use).</p> <p>Salient findings were (p.8 of executive report, bold added) <i>Residential indoor water use in single-family homes has decreased. The average per household daily water use has decreased 22 percent, from 177 gphd (REU1999) to 138 gphd (REU2016). Per capita average water use has decreased 15 percent, from 69.3 gpcd (REU1999) to 58.6 gpcd (REU2016). In REU1999, a household averaged 2.77 people and in REU2016, a household averaged 2.65 people. The improved water efficiency of clothes washers and toilets accounts for most of the decreases in indoor use.</i></p> <p>These numbers were averages (older inefficient houses and newer and retrofitted houses) from all over the country (not just CA where there is more awareness of water use and more stringent building/plumbing code standards) and showed that water use had declined by 22% on average as new fixtures and appliances were added to the existing lower efficiency fixtures and appliances. It goes on to say on page 11 under “Indoor Conservation Potential” that “<b>Per Capital use of 58.6 gpcd is expected to reduce to 36.7 in the coming years (DeOreo et al 2011)</b>”, and “<b>Further reductions are anticipated as customer side leakage is reduced (through automated meter reading and leak alert programs) and through on-site reuse</b>”</p>	<p>New homes do received the low flow credit and we use 120 gallons per bedroom.</p> <p>Older homes are not required to retrofit plumbing fixtures so we still need to use 150 gallons per day for replacement systems.</p>	Y	<p>Section 4.5</p> <p>A. Residential wastewater flows used for design of OWTS for <u>new</u> single family residences, ... bedrooms multiplied by a factor of <del>150</del> <u>120</u> gallons per day per bedroom for the first 5 bedrooms, plus <del>75-60</del> gallons per day for each additional bedroom, ...</p> <p>D. Reductions of wastewater design flows up to 20 percent <u>for dwelling units constructed prior to 1998</u> shall be approved by the Permit Authority when each of the following is provided:</p> <p>Table 4.5 – use 120 per bedroom throughout table.</p>
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109	RGoldstein	12	<p>.NSF 350 systems and smaller leach fields</p> <p>As part of my research into various septic alternatives, and ways to reduce overall water use, I have run across MBR pretreatment systems (which are included in appendix A). They basically make the water quality similar to what is allowed for surface discharge. While there are provisions for surface discharge of commercial system effluent (with monitoring and testing etc.), there are no provisions for surface discharge for single family residential homes (nor am I suggesting this). However, based on engineering calculations (I can get them from the vendors if they haven't already supplied them) the amount of leach field required to achieve the same or even higher level of public safety is about ½ of the size of other pretreatment systems.</p> <p>Making provisions for smaller leach fields for systems that meet NSF 350, will incentivize residents to put in the more efficient treatment systems possible. Ultimately, this water could be used for landscaping requirements (subject to all of the setbacks etc., and with the required underground discharge), which would substantially reduce overall residential water use. In fact, for a well designed water wise landscape, it could potentially eliminate all of the outdoor water use. The quality of the water would be superior to typical greywater and go to beneficial use, all in one system without requiring a separate septic systems and a separate greywater system. These systems also have a long term track record in other jurisdictions, which can be verified by the county in accordance with its new policy not needing to repeat work that has been done elsewhere. Once again, it would incentivize residents to move towards the most efficient and health and environmentally friendly systems, lower the demand on our groundwater and keep Sonoma county in the forefront of policy and quality of life.</p> <p>I hope that the county will give serious consideration to these suggestions that have the potential to provide substantial benefits to county residents, while maintaining human and environmental safeguards.</p>	<p>Comment noted. MBR's or other technology would need tried as an experimental system and if provent then moved to an alternative system.</p> <p>If units have been used in other County's and there is supporting data, those units could potentially be added to our alternative system program.</p> <p>The first step would be to apply for the experimental and/or alternative program.</p>	N
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108	RGoldstein	13.7	13.7	<p>Adding soil to cover drip lines at the surface where there is 24" to groundwater. This is fairly straight forward. 24" to groundwater is required for effluent disposal. However, effluent disposal/drip lines need to be 6" underground. So if there is only 24" to groundwater, and the drip line is buried, then the 24" requirement will not be met. However, a number of jurisdictions, including Napa and Mendocino allow drip to be placed on the surface where there is 24" to groundwater and to simply cover the drip line with 6" of soil. Sonoma County has permitted this as well, on a case by case basis, but it would certainly be preferable for all involved (residents and regulators alike), to eliminate the need to handle as many requests for waivers to make this policy change. As this is working well in other counties, there doesn't seem to be any reason not to make this change.</p>	<p>Comment noted. No change is recommended. Willing to discuss with LUAP TAC.</p>	N	
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47	RHolmer	4.13	4.13.A.1 & 2	<p>These sections should be clarified that they pertain to new OWTS. If a replacement system is being constructed, it will most likely use the designated reserve area that was originally approved. Most parcels do not have additional area.</p>	<p>In 1971 County Env Health Department created the standards for 200% replacement for parcels created in October 1971 and later; and 100% replacement area for parcels created prior to October 1971.</p> <p>New parcels create after the October 1971 date were required to have a minimum lot size of 1.5 acres for those using septics and wells and 1.0 acres for those using septics and a municipal water supply.</p> <p>It was estimated that septic systems average 30-40 years longevity. With three systems on a rotation, the first dispersal area could rest 60-80 years, while the second and third system were used. Having three systems in rotation could reasonably assure the parcel of having an operational septic system in perpetuity.</p> <p>Env Health recognized that pre-1971 parcels may be smaller than the minimum lot size and should not be required to have 200% replacement area. Env Health weighed many factors and decided upon the 100% replacement area regulation.</p> <p>The current draft is proposing nothing new and is proposing to continue a reasonable practice to ensure there is replacement area on the subject parcel.</p>	N	
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45	RHolmer	4.2	4.2.C.8	<p>This section should reference the ability to replace a system with less than 2 feet separation to groundwater that is allowable under Regional Water Quality Control Board Order No. R1-2017-0039.</p>	<p>Section 4.2.C list the State's OWTS Policy prohibitions and section 4.3 list the mitigations to those prohibitions when a mitigation can be applied.</p> <p>Section 4.3.C is being revised to reflect the RWB Order No.</p>	Y	<p>Section 4.3.C</p> <p>C. To mitigate prohibition 4.2.C.8 and 4.2.C.9 (vertical separation to groundwater), the owner shall file a Notice of Intent with the appropriate <del>RWQCB Regional Water Board</del> for waste discharge requirements, waiver of waste discharge requirements or a conditional waiver of waste discharge requirements. For the <u>North Coast RWB, apply under Order No. R1-2017-0039.</u></p>
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46	RHolmer	4.4	4.4.A.2	<p>The current repair permit process allows design of a simple standard system by a Class A or C42 contractor. This process had been reviewed years ago by County Counsel and was found to satisfy the requirements of State law. It has proven to be cost effective for property owners as well as providing a rapid process for completing a repair (replacement) to a system. You have stated concerns that there is inadequate consideration of soil and depth to groundwater in the current process. This appears to have developed in the course of the past decade and is, indeed, a failing of the current process. I have suggested an alternative means of soil analysis that can be incorporated as a requirement into a design by a septic system contractor; please refer to my comments on soil analysis.</p> <p>I am also suggesting the use of stock plans for replacement systems prepared by a Qualified Professional in the employ of Permit Sonoma. This is strictly in accordance with the State OWTS policy and could be limited to sites where system construction does not have unusual or severe constraints (probably 75% of replacements). I suggest a policy where soil and groundwater analysis is performed in accordance with my proposed revisions below, consultation is made with staff and a stock plan is selected based upon the soil and site conditions, staff reviews a stake out of the system with the contractor, and does the final inspection. The contractor can submit an as-built sketch. This process eliminates the time delays and expense associated with having a private consultant prepare a design for review by County staff (with the associated back and forth on plan revisions).</p> <p>It should be mentioned that the timely and effective correction of failing septic systems is essential to preventing public health and water quality issues. The permit process needs to be designed in a manner where a property owner can quickly obtain a permit and construct a replacement system that meets the OWTS policy.</p>	<p>Comment noted. In our experience contractors are not submitting septic designs. The voluntary repairs consist of field drawings depicting the length and location of leach lines or location of a dispersal pit. The submittals do not contain the typical design parameters nor do they contain any calculations supporting the size of the dispersal system.</p> <p>County Counsel has reviewed this files and cannot find any documentation that is being asserted by the commentor.</p> <p>Staff has searched for state law, business and professions code or any provision, county or state, that supports Class A or C42 contractors conducting septic designs. We can find no such authorizing law or codes.</p> <p>Permit Sonoma staff are regulators by design. Designing systems that we permit would be contrary to best professional practice and contrary to the concept of a regulator or regulating agency.</p> <p>Stock plans do not really work in the septic arena. There are details, spec sheets, and standardized items such as a leach line trench, mound system, etc. However, design parameters and site conditons (soil type, soil depth, depth to groundwater, slope of terrain, etc.) requires the standardized leach line trench or mound system to be adjusted (designed) based on the site conditions and tailored for each site.</p>	N	
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					Pursuant to section 5.3 we have committed to expediting failing systems. Pursuant to section 4.9.D.3, a client can install 25% of the total linear footage of the existing dispersal system under a repair permit. The concept is a repair permit can be pulled quickly and afford more time to obtain a replacement permit.		
48	RHolmer	5.1	5.1.E.2 & 3	The 30 day grace period should not be tied to the date of permit issuance. Due to the complicated steps required to acquire a replacement permit, a property owner may be substantially delayed in actually obtaining a permit or even submitting a permit application. I would suggest using "where the property owner has not started the process to effect corrections to the system".	Commented noted.	N	
49	RHolmer	5.3	5.3.A	I do not see the justification for developing repair standards that are different for failing systems that are subject to a code enforcement action vs. systems that are being voluntarily repaired. The repair process should be based upon codes and standards in the document, not on whether it was self reported or not.	The repair standards are the same regardless. Code Enforcement may, on occasion, need to take enforcement action for mandate a system to be repaired.	N	
50	RHolmer	5.3	5.3.E	It should be clarified that the staff visit within 48 hours of a property owner reporting a failing system is for the purpose of assessing the failure and assisting the property owner to correct the problem. It should be explicitly stated that a Notice of Violation will not be issued as long as the property owner is voluntarily taking steps to correct the problem.	Comment noted. For scenario under 5.3, the owner has applied for a septic permit and pursuant to 5.1.E the intent is to not apply an investigation fee or penalty.  Section 5.3 would govern in this scenario.	N	
51	RHolmer	6.1	6.1.A	This section should reference the Department's policy on when a plan check is required for residential structures. If changes are made to the general PRMD policy, the OWTS standards would stay up to date.	Agreed. Section 6.1.A has been revised.	Y	Section 6.1.A A. Building permits without a plan review, <u>pursuant to PRMD Policy No. 4-0-7 Building Permits With No Plan Review</u> , do not require a review by the Well and Septic Section. <del>Following is a list of building permits that do not require a plan review.</del> <u>The following are example building projects that do not require a plan review.</u>
58	RHolmer	6.11	6.11.B.2	If the OWTS is a long ways from the building and clearly will not be affected by the changes proposed, there should not be a requirement to dig up the system and prepare a plan of its exact location. Many times, record data is sufficient to make this determination and can be used for an across the counter clearance by Well and Septic staff.	Comment noted. Locating the dispersal system is project dependent and may not be necessary depending on the scope of the project.	N	

59	RHolmer	6.11	6.11.B.7	A separate report by the pumper should not be required if the Qualified Consultant is present while the tank is pumped and includes an evaluation in their report.	Deleting “and recent pumper’s report (within last 5 years)” from section 6.10.B.7.	Y	Section 6.10.B.7 7. Inspection of all tanks <del>and recent pumper’s report (within last 5 years)</del> ; this should ...
52	RHolmer	6.4	6.4.A	Clarify that the requirements for a reconstructed dwelling do not apply to structures lost to fire, flood, earthquake, wind damage, or other catastrophic events.	Agreed. Section 6.1.B has been added.	Y	Section 6.1.B B. <u>Building permits with a plan review that results from a declared disaster, earthquake, fire, flood, tree damage, or other untoward event do not require a review by the Well and Septic Section.</u>
53	RHolmer	6.4	6.4.C	Under the current code, the property owner has the option of connecting a new ADU to an existing Class 2 non-conforming system provided that a bedroom is removed from the primary dwelling so there is no increase in flow to the OWTS (“bedroom swap”). The proposed revision requires a code conforming system in all cases. I do not see the rationale for making this standard more restrictive and I suggest that bedroom swaps continue to be allowed. In my experience, this often occurs when a senior wishes to remain in their home after the family has moved out but needs supplemental income from and ADU. Removal of a bedroom in the primary house does not pose a hardship to them whereas constructing a new, code conforming system may impose an excessive financial burden.	Section 6.4.C, second paragraph has been amended to include bedroom swaps between the primary dwelling and proposed ADU.	Y	Section 6.4.C C. Applicant has the option to connect the ADU to the existing septic system serving the primary dwelling unit provided the existing septic system is code compliant and has capacity for the ADU waste flow or to construct a new code compliant septic system for the ADU. <u>This category may also include a bedroom swap between the existing primary dwelling and the proposed ADU.</u>
54	RHolmer	6.4	6.4.C.2	I do not think that an ADU should be required to have a separate septic tank in all cases. Septic tanks are sized based upon the volume of sewage flow, not the number of structures connected to them. It is not unusual or undesirable to have multiple structures connected to a single, properly sized septic tank.	Agreed. Section 6.4.C.2 is being deleted.	Y	Section 6.4.C.2 <del>2. The ADU shall have a dedicated septic tank; or</del>
55	RHolmer	6.7	6.7.A	A non-conforming OWTS which has sufficient capacity to support an extra bedroom should be permissible as long as there is no increase in sewage flow above the original design capacity of the system. This can be justified where the existing system was sized based upon sewage flows before the requirement for low flow plumbing fixtures. These systems may have adequate capacity if low flow fixtures are installed. A Qualified Consultant should provide this evaluation.	Adding new bedrooms or new flow requires a code compliant system and adequate capacity.  One can evaluate a non-conforming OWTS to determine if it meets the criteria for a code compliant system.  Section 4.5.D allows for 20% reductions in flow if low flow fixtures are added to the structure.	N	

56	RHolmer	6.7	6.7.A.2	<p>This requires demonstration of a code conforming replacement area even where there is NO INCREASE in the volume of sewage flow or change in the building footprint. The proposed process is to have a Qualified Consultant evaluate soils profiles and design a future replacement system to current code standards. This is not only a very onerous requirement but there is simply no nexus for this requirement when there is no change in the sewage discharge. A simple permit to remodel a kitchen within the existing footprint would trigger this requirement if the lot is more than 50% encumbered. Demonstration of a code conforming area for a future repair should not be applied to simple interior remodeling where use of a non-conforming system is approved. The work should be allowed with or without reserve area since there is no effect upon the OWTS.</p>	<p>Agreed. Section 6.7.A.2 is being revised to only apply to additions.</p> <p>Section 6.7 has been revised to be section 6.5.</p>	N	<p>Section 6.5.B.2</p> <p>2. <u>For proposed additions</u>, a reserve replacement area shall be evaluated or required to the primary dwelling unit, pursuant to Sections <u>6.7</u> <del>6.8</del> and <u>4.11.A</u> <del>4.13.A</del></p>
57	RHolmer	6.8	6.8.C	<p>If use of a non-conforming system is approved, the amount of reserve area should be based upon the size of the existing system, not the size and type of system what would be required for a code conforming system. You are mixing apples and oranges here. If a non-conforming system is acceptable, the amount of reserve area based upon the existing system should also be acceptable.</p> <p>If the OWTS has an existing, approved reserve area on the original permit, that should be adequate to satisfy the requirement for a demonstrated reserve area. Requiring property owners to jump through hoops to demonstrate a code conforming reserve area that may not be used for decades into the future is not justified. By the time the replacement system is installed, codes will have changed and the property owner will need to go through the process yet again.</p> <p>This section should also recognize and allow interior remodeling of a residence where the parcel does not have any or adequate reserve area and where there is no increase in the volume of sewage discharge or the building footprint. Many of the small parcels on OWTS are older homes serving low income residents and the homes are in need of upgrades to achieve building code compliance or to modernize older homes. It should be recognized that not all parcels will have reserve area available, that some types of work on the house will not impact the OWTS and that building improvements are a necessary part of occupancy of a home.</p>	<p>Comment noted. The size of a system should be based on the site parameters, not what was installed based on historic standards.</p> <p>Comment noted. Not necessarily.</p> <p>Agreed. Interior remodeling will not create any encumbrance and therefore not trigger the need for reserve area evaluation unless they are increasing the amount of wastewater flow.</p> <p>Section 6.7.A.2 will be edited to only refer to section 6.8 if there is additional square footage being added to a structure.</p> <p>Sections 6.6 and 6.7 have been consolidated into section 6.5.</p> <p>Section 6.8 has been renumbered to be section 6.6.</p>	Y	<p>Section 6.5.B.2</p> <p>2. <u>For proposed additions</u>, a reserve replacement area shall be evaluated or required to the primary dwelling unit, pursuant to Sections <u>6.7</u> <del>6.8</del> and <u>4.11.A</u> <del>4.13.A</del></p>

60	RHolmer	7.1	7.1	<p>This section should be split into two sections, one for new OWTS and one for replacement OWTS. Although the State OWTS policy requires evaluation in both cases, it does not require that the method of evaluation be the same in both cases. In fact, neighboring counties allow a reduced level of soils evaluation for replacement systems.</p> <p>The new section on soils evaluation for replacement systems should include the following options:</p> <p>a. The soils evaluation could be performed by a Qualified Professional in the employ of the County. All of the REHS staff in the Well and Septic Section meet the definition of Qualified Professionals. The property owner or septic system contractor could have profile holes dug and the staff REHS could evaluate these and make a determination as to the system type based upon the soils observed. Since the Department already performs a site review for a replacement system, the amount of additional work is not excessive. OR</p> <p>b. The use of information from the Sonoma County Soil Survey, historical data on record from parcels in the vicinity (in the same soil type) and data from previous evaluations on the parcel should be allowed. This meets the requirements of the State OWTS policy and is much less of a burden to the property owner than requiring them to hire a private consultant. This is similar to the groundwater evaluation method that is being proposed.</p> <p>Either of the above procedures would address the County's concern that soils be evaluated prior to issuance of a permit. And either of them would satisfy the State OWTS policy. There is no need to make the County OWTS policy more restrictive than the State OWTS policy. There is a need, however, to make the permit process efficient and timely.</p>	<p>You are correct that REHS staff are one of two professionals that qualify to design systems. However the county is the regulator and should not be designing systems. Regulators should not be designing systems that they then approve. That is a liability for the County.</p> <p>We agree that records of soils evaluation is currently and will be allowed in assessing a proposed system and current code designs. This is information the Qualified Consultant can use to design a system, if the data is not sufficient to provide design parameters the Qualified consultant can supplement the data with additional soils work and data. This could be a simple augering of soils profile holes and or using the data that is on record.</p>	N
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61	RHolmer	7.2	7.2.C	<p>Setback to perennial stream:</p> <p>It is often unclear where the bank of the river is located on parcels along the Russian River. The Russian River has numerous flood plain hummocks before reaching the actual river channel. The State has established the Mean High Water Level as the boundary of the jurisdiction of the State Lands Commission and the public use area. This is commonly determined by observing the river to determine where high water flows have repeatedly affected the regrowth of vegetation. Use of the Mean High Water Level as an alternative method would allow a less arbitrary approach than a determination based upon which of the various banks of the river will be used for measuring the required setback to the OWTS. This is consistent with the required setback to the ocean and to lakes.</p> <p>It should also be noted that the State OWTS policy allows a reduced setback to a perennial stream where it can be demonstrated that site conditions prevent the migration of wastewater to the water body (e.g. a perennial stream located at a higher elevation than the OWTS).</p>	Comment noted.	N	
62	RHolmer	7.5	7.5.G.1	Remove the arbitrary 500 foot distance and specify “within the same soil type”.	<p>Section 7.5 addresses methods for groundwater elevation, not soil type. Section 7.5.G is specific to the criteria when existing data may be used.</p> <p>While soil type is a factor in groundwater elevation, this is not solely about soil type. The groundwater gradient also needs to be considered.</p> <p>Consider a 0.1% gradient with a 500 foot horizontal distance, that is ½ foot in groundwater elevation. A ½ foot of soil is significant as septic systems rely on soil profile for treatment. The horizontal distance is pertinent when reviewing existing data.</p> <p>The 500 foot provision is a reasonable distance as to when existing data may be considered to help establish groundwater elevation.</p>	N	

63	RHolmer	7.5	7.5.G.3 & G.4	Ground water conditions on a parcel are a function of the groundwater basin and rainfall. If the parcel has not been disturbed, there should be no expiration period for previously approved groundwater table determinations. Expiration after 3 years is simply not supported in reference guides for site evaluation and should be removed from the regulations. I would suggest that all groundwater determinations approved by the County since 1982 be acceptable data for the compilation method (1982 was when the County started requiring detailed, uniform methods for soils and groundwater determinations).	Agreed on the three year time period. Section 7.5.G.3 is being revised.	Y	Section 7.5.G.3 3. <u>Soil profile readings or observations were made by both a Qualified Consultant and the Permit Authority within the past 3 years and the site conditions have not changed to render the readings or observations invalid.</u>
64	RHolmer	7.6	7.6.A	The first two sentences are not consistent. It should be clarified that percolation testing is only required when soil permeability cannot be determined from soil profile analysis.	Comment noted. Section 7.6.A addresses two scenarios which leads to the confusion. Section 7.6.A has been revised to separate out the scenarios.	Y	Section 7.6 A. <u>Soil percolation testing is required for all undeveloped properties. Site suitability for effluent dispersal for an undeveloped parcel shall be determined by a percolation test.</u> B. Site suitability for effluent dispersal for a developed parcel shall be determined by a percolation test or soil analysis. <u>Soil percolation testing is required for developed properties when soils are classified as zone 3 or zone 4 on the soils suitability chart.</u> C. <u>Wet weather percolation testing is required for all parcels where soils are classified as Zone 3 or 4 through a soil analysis and have a Plasticity Index of 20 or greater (ASTM D 4318-84).</u> D. <u>Dry weather percolation testing is required for all parcels where the soils are classified as Zone 3 or 4 through a soil analysis and have a Plasticity Index of less than 20 (ASTM D 4318-84).</u> E. <del>Private</del> Sewage dispersal sites require a minimum of 6 or more holes ( <u>depending on the system size</u> ) spaced uniformly throughout the area chosen for the proposed leaching field and leaching field expansion area. F. The location of test holes must take into consideration the minimum distances which will govern construction of an OWTS. G. Additional requirements, determined on an individual basis, may be required for specially designed or non-standard on-site sewage dispersal systems when permitted.
65	RHolmer	9.3	9.3.F	Instead of prohibiting OWTS construction during the wet weather period, it should specify that system construction is not allowed when the soil is saturated. This allows a site specific determination rather than an arbitrary time frame.	Agreed. Section 9.4.F has been revised.  Also, we have two section 9.3's. The second 9.3 will be renumbered to be 9.4.	Y	Section 9.4.F F. Construction of OWTS shall be avoided during the rainy season <u>except when demonstrated by a qualified consultant that unsaturated soil conditions exist and compaction and smearing will not occur.</u>

66	RHolmer	13.8	13.8	<p>Bottomless sand filters should be classified as an approved alternative system since there is a geographic waiver from the North Coast Regional Water Quality Control Board allowing their use under defined conditions. Add compost toilets as an approved experimental system. They have been approved projects for the use of compost toilets in Sonoma County.</p>	<p>Staff will forward BSF to RWB for review and approval.</p> <p>A section on waterless toilets is being proposed.</p>	Y	See new section 21 for waterless toilets.
69	RHolmer	18	18	<p>I suggest the deletion of all of the “waiver prohibition areas” in section 18. These were established by the Board of Supervisors and/or the Health Department decades ago in response to observed problems with systems in specific geographic areas. None of these prohibition areas was established by action of the Regional Water Quality Control Boards. These were established at a time when OWTS regulations were in their infancy and there was not good scientific research on the performance of OWTS. It was recognized, at the time of the adoption of the waiver prohibition areas, that the regulations were weak. It was felt that any further variance to weak regulations would potentially create unacceptable OWTS installations. As such, the waiver prohibition areas are artifacts of previous, very old OWTS codes.</p> <p>Currently we have strong, scientific statewide OWTS standards that were developed after extensive research and review by both private and governmental professionals. The arbitrary prohibition of variances is no longer necessary where variances can be justified in accordance with the OWTS policy.</p> <p>Variance prohibitions can actually be counter productive towards achieving the best available technology for replacement systems on small lots. Many times a variance is needed to property line setbacks, drainage courses, structures or other features. If the variance is not allowed, the choice of systems is severely limited and the most effective system may not be permissible. If a variance can be justified in accordance with the OWTS policy, it should be allowed.</p>	<p>The appropriate waiver prohibition areas will be removed once the TMDL standards and the County’s APMP are in place.</p> <p>Generally, we agree with the idea of allowing variances. One concept of the proposed standards is to recognize variances as part of the overall code and if a system meets the intent of providing a system that can provide adequate treatment and disposal, the number of variances is not relevant. Further, a system that meets the proposed policies with one or more variances is considered a code compliant system.</p> <p>The concept is if a standard cannot be met, a mitigation measure aka a variance may achieve the same goal or intent. If so, we propose to issue the permit and treat the system as a code compliant system.</p>	N	
9	RMendenhal I	1	General	<p>You are way ahead of a public process. All I want to do is comment about the changes to the septic policy. The regulation is totally unclear. I have no idea how these changes effect a particular parcel. I don’t think the County does either. The proposals need to be tied to parcel mapping.</p>	<p>Comment noted.</p>	N	

105	RRoss	13.7	13.7	<p>Proposed changes to provide more flexibility for system implementation and to be consistent with nearby counties. See attached for a sketch if it helps.</p> <p>1. Napa allows for drip at native grade with fill material placed above it. The proposed language change is most consistent with this approach.</p> <p>2. In Mendocino we would the shallow trench requirement is lower (a minimum of 2 inches for placement of the drip tubing), then fill would be placed on top. If the cover is still less than 12" then UV would still be required per the current regulations though if 12" of fill were placed on top, UV not needed. No proposed changes to the existing language in that respect. No proposed changes to slope restrictions, etc</p>	<p>Comment noted. No change is recommended. Willing to discuss with LUAP TAC.</p>	N	
156	RRoss	13.7	13.7.D.5	<p>Change to subsurface drip section for consistency with other counties and more flexibility for system implementation. yes, page 13-51. Section 13.8.D.5, strike the language which reads ", and shall not be used to meet required soil depth minimums". I'm in favor of the majority of the changes and appreciate how PRMD is trying to make the process more streamlined and consistent for everyone.</p>	<p>Disagree. Fill material should not be used to meet the depth of soil requirements.</p>	N	
31	RSwift	1	General	<p>There needs to be an acknowledgement and understanding of the reality that there is a huge difference between new development on an undeveloped parcel (or a proposed increase in flow on an existing developed parcel) and the existence of a significant percentAc of existing properties that were developed prior to present day code requirements.</p> <p>Rather than triggering the Best Available (Code Compliant) technology (e.g. approved variance that requires installation of a pretreatment unit and enrollment in the Operational Permit program), or, at a minimum, the requirement for a comprehensive and exhaustive site evaluation to replace an existing OWTS that is outside the TMDL designated boundary. A more common sense approach is required to promote Best Practical solutions, with consideration given to pre-existing non-conforming status, site conditions and constraints, the proposed extent of property improvements, and actual environmental and/or financial impact (cost/benefit) associated with a replacement dispersal field. In addition to the additional cost to the property owner, the requirement for a Findings Report by a QC (Draft 2018 OWTS Manual Section 6.11A and B) for all replacement dispersal fields is problematic due to the current workload backlog of consultants and PRMD staff</p>	<p>The State OWTS Policy defines a replacement system. The OWTS Policy has the same criteria for a new system and for a replacement systems.</p> <p>Not complying with the State OWTS Policy puts the County at risk of not having an approved local septic policy.</p> <p>A findings report is only required if a new structure (ADU or accessory structure) or improvements to existing structures triggers the need for a code compliant or non-compliant system. Further, a findings report is one of several options to document the type of system.</p>	N	

33	RSwift	4.13	4.13.A	<p>It needs to be recognized that there are many parcels created prior to 1971 that were developed prior to the requirement to have 100% reserve replacement area.</p> <p>Indeed, a significant proportion of these existing developed parcels on OWTS were not installed, the county has no record of the systems, or systems were permitted in the past that have marginal to no reserve replacement area available. What is the approved Variance Mitigation Measure when there is little to no reserve replacement area available?</p> <p>H. This section should be highlighted upfront so that the general public is fully aware that all OWTS applications (and regulatory requirements) located near a water body that is subject to a TMDL Advanced Protection Management Program (APMP) may be subject to additional, more stringent criteria than those systems located outside a designated APMP.</p> <p>N. What about if the expansion of the existing footprint of an existing structure or new accessory structure is proposed in an area that is unsuitable for a reserve replacement area? Why shouldn't improvements to a developed parcel, with no increase in flow and no encroachment on potential reserve replacement area, be allowed if the only available reserve replacement area is a seepage pit, if that is all that is available? In this scenario, the reserve replacement dispersal field should be equivalent to the size of the primary dispersal field.</p> <p>There is a need to balance the need for maintaining the existing housing stock, giving property owners a legally and affordable way to upgrade their homes and to evaluate and, as warranted, upgrading OWTS, to meet the goals of being protective of public health and the environment.</p>	<p>It has been recognized for decades there are many, many undersized parcels in the County. Env Health decided to require 200% expansion areas for parcels created after October 1971 and to require 100% expansion areas for the parcel created before that. It is also recognized the subdivision ordinance requires a minimum lot size of 1.5 acres and 200% expansion area. So this is not a new issue and not a new regulation.</p> <p>People can live in their homes and not be required by the County to upgrade their system or address an expansion area.</p> <p>People can repair their homes and not be required by the County to upgrade their system or address an expansion area.</p> <p>When clients start improving their structure or adding structures, then the requirements for either a code compliant system or a non-compliant system and expansion areas do apply.</p> <p>The criteria and/or design standards to implement the TMDL have not been finalized so the details cannot be provided at this time. We cannot place standards in the OWTS Manual that do not exist. We can speculate on the standards, but we might be doing a disservice if our speculation ended up not being what the RWB adopts.</p> <p>TMDL implementation has been discussed with the public during the community outreach meetings as</p>	N	
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					<p>well as during meetings before the Board of Supervisors.</p> <p>Seepage pits are not banned. There are criteria, but they are not banned.</p> <p>Regarding the need to balance housing stock and providing a pathway to upgrade structures, please review the revised section 6. The revised building policies (section 6) presents a more balanced approach as compared to the existing section 6.</p>		
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29	RSwift	4.3	4.3.C	<p>There are an estimated 45,000 OWTS in Sonoma County. The county has no record whatsoever on more than ½ of these existing systems.</p> <p>I am concerned that to require property owners of existing systems, outside a TMDL designated boundary, (thus no evidence that they are contributing to water body impairment or a threat to public health), that wish to install a replacement system and <u>cannot</u> demonstrate compliance with the two feet separation to groundwater (ten feet for a seepage pit) is problematic.</p> <p>The process, consisting of an evaluation by a Qualified Consultant (i.e. a RCE or REHS), filing a Notice of Intent with the RWQCB to obtain a Conditional Waiver of Waste Discharge Requirements, and then installing an expensive supplemental treatment and enrolling in the Operating Permit program, prior to obtaining a Replacement OWTS Permit is unduly onerous, cost prohibitive, unwarranted and not feasible, especially if the proposed replacement is for an existing system in failure and time is of the essence.</p> <p>Even if the property owner is able to demonstrate compliance with the depth to groundwater, the additional cost incurred to replace an existing OWTS by hiring a Qualified Consultant (RCE or REHS) in every instance is a concern.</p> <p>I fear that these stringent requirements will result in either an increase in the installation of unpermitted OWTS replacement dispersal fields, actually fewer voluntary replacement upgrades than may have been considered otherwise, and/or an increase in unpermitted building activity.</p>	<p>Agreed, that is problematic. However, this is a State OWTS Policy standard and cannot be waived by a local program. In fact, if one cannot meet the two foot separation, the system is not authorized under the State OWTS Policy at all. This is why an individual approval by the RWB is needed. Either the County recognizes the 2 foot separation or we ignore it at the risk of not having a local program. The RWB would be hard pressed to authorize a local program that does not comply with the State’s OWTS Policy.</p> <p>The RWB has created Order No. R1-2017-0039. The County will assist in reviewing the project for consistency with the RWB Order, but the two foot requirement and ensuing process is outside local control.</p> <p>The proposed regulations requires knowing design parameters to ensure a design that can adequately treat the wastewater. Allowing systems to be installed absent this knowledge will condone systems that have not been designed. This will create public health and safety concerns.</p> <p>The building permit requirements have been revised and should result is fewer upgrades to septic systems. This should also encourage more building permits as compared to non-permitted building work to avoid septic system upgrades.</p>	N	
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30	RSwift	4.4	4.4.A.2	<p>The CA Business and Professions Code (BPC 7056) reads: “A general engineering contractor is a contractor whose <u>principal</u> contracting business is in connection with <u>fixed works</u> requiring specialized engineering knowledge and skill, including the following divisions or subjects:...sewers and <u>sewage disposal plants and systems</u> ... (emphasis added).” The State OWTS Policy definition of a <u>Qualified Professional</u> includes the last sentence: “A local agency may modify this definition as part of its LAMP.”</p> <p>The CA BPC 7058 defines a C-42 Sanitation System Contractor as follows: “A C-42 Sanitation System Contractor fabricates and installs cesspools, septic tanks, storm drains and other sewage disposal and drain structures.”</p> <p>Although there are any number of C-42s with the necessary expertise to design a standard system replacement of an existing OWTS, the BPC language is more strongly supportive of the General Engineering contractor qualifications than C-42s.</p> <p>A General Engineering Contractor possesses the necessary qualifications and should be allowed to design a <u>standard</u> OWTS as a replacement dispersal field. In addition, the requirement that every repair of a non-standard OWTS, must be designed by a QC is excessive. A General Engineering Contractor should be allowed to “design” a <u>repair</u> of a non-standard OWTS, in addition to be allowed to design a standard OWTS <u>replacement</u> dispersal field. Per definition, a repair is not a replacement.</p> <p>Allowing General Engineering contractors to design standard OWTS replacements and non-standard OWTS repairs would lower the required design costs to the property owner.</p>	<p>BPC 7056 also lists dams and hydroelectric projects, refineries, and chemical plants, (and many more project types) as being within an engineering contractors principal business. Using the commenters logic, a general engineering contractor should then be allowed to design dams, refineries and chemical plants in addition to sewage disposal plants and systems. I submit this section refers to the type of projects an engineering general contractor may construct.</p> <p>In our experience, contractors are not designing standard systems. They are submitting field drawings, but are not conducting site evaluation work to determine the soil type, soil depth, percolation rates or depth to groundwater. Nor are they submitting design calculations to support the length of leach lines being proposed.</p>	N	
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32	RSwift	4.9	4.9.E	<p>This section appears overly bureaucratic. What financial constraints criteria does the Director of PRMD use to determine hardship eligibility? I assume that the cost of a replacement OWTS, especially one that exceeds \$50,000 would put a financial strain on the financial resources of a majority of property owners.</p> <p>Replacement of septic tanks and dispersal fields “to the maximum extent <u>feasible</u>” (E. 6 and 7) is what is intended with the application of the Class II (Best Practical) OWTS, which is dependent upon site specific conditions and constraints, the extent of proposed property improvements (with no increase in flow) and Best Professional Judgement.</p> <p>Feasibility was also a consideration in adoption of the OWTS Policy Environmental Document, specifically as it relates to depth to groundwater. To reduce the economic impact to existing communities from “Potentially Significant” to “Less Than Significant” for property owners with existing structures with inadequate site conditions that require a replacement OWTS, the OWTS Policy reads “to the greatest extent <u>practicable</u> (emphasis added).”</p> <p>The majority of the applications for a Replacement (i.e. voluntary repair) Permit, if the system is not in “failure,” are in conjunction with proposed or anticipated property improvements or property transfer conditions to upgrade a marginally functioning stressed and/or unpermitted OWTS. Systems subject to a TMDL APMP may be subject to additional, more restrictive requirements but more flexibility is warranted for those outside a TMDL APMP where there is no evidence of water body impairment.</p> <p>The Hardship Replacement Permit (i.e. “is similar to a situation where a Class II (Best Practical) would be applicable. With the elimination of Class II you eliminate one of the objectives of the current Section 6 OWTS Requirements for Approval of Building Permits which was to encourage voluntary upgrades of existing OWTS in exchange for a degree of permitted building improvements. Currently, depending on the degree of proposed improvements, the OWTS would be subject to Class I (Best Available), Class II (Best Practical) or Class III (Best Conventional) OWTS criteria to replace a Class IV (cesspool and/or undocumented OWTS).</p>	<p>The financial hardship is intended for the situation where a client must fix their system due to a surfacing effluent or a failing system and the expense creates a financial hardship. The financial hardship is not for those clients wishing to make improvements to existing structures. Nor is the financial hardship intended for property transactions.</p> <p>Commentor is incorrect. The current section 6, September 2016 OWTS Manual, does not allow structural improvements in exchange for a voluntary repair. The 2016 version created a permit type of “Upgrade Permit” which did afford a level of structural improvement while the “voluntary repair” did not afford any level of structural improvement.</p> <p>Staff recognized that voluntary repairs were being used to avoid evaluating the key parameters that are typically evaluated to ensure a dispersal system will treat the waste. The intent, even as early as the 2016 OWTS Manual, was to reduce the use of voluntary repairs and to limit their use to repairs in response to failing or marginally functioning systems and not for structural improvements or for real estate transactions.</p>	N	
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34	RSwift	5.3	5.3	<p>All well and good for a Draft 2018 OWTS Manual “repair” situation and the current 2016 OWTS Manual repair (i.e replacement) standards. Upon verification by Well and Septic staff within 48 hours, staff will expedite review and issuance of a Replacement Permit.</p> <p>In the case of a true failure (stressed but not yet meeting the definition of acute failure that would require immediate corrective action) this may make some property owners poorer and septic tank pumpers and QCs richer. The septic tank would require more frequent pumpings while waiting for the property owner to hire a QC to evaluate the sub surface soil for evidence of seasonal groundwater at least 3 feet below any proposed replacement dispersal area (10 feet below the bottom of a seepage pit), while the QC writes up his comprehensive Findings Report while awaiting issuance of a Replacement Permit, which may or most probably will, require application for a waiver of Waste Discharge Requirements and application for a Variance.</p> <p>Before actual approval of the Variance and subsequent issuance of a Replacement Permit, All this before the most practical repair to a malfunctioning system, to be designed only by a RCE or REHS, involves replacement of the existing dispersal with something at least comparable or an upgrade. More flexibility required to accomplish this process, especially in light of current Well &amp;Septic staffing resources and increased demands and the potential impact to public health and the environment.</p>	<p>The contractor could apply for a repair permit to install at least 25% of a failing line to help keep the owners from having to pump their tanks.</p> <p>Then the system could be evaluated as to why it is failing and if a replacement system is needed or not. Then an evaluation of the site and potential solutions would then ensue.</p> <p>In our experience contractors are proposing replacement leach lines as the solution without investigating why a system is failing to see if a simpler fix/repair will suffice.</p>	N	
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35	RSwift	6	6	<p>Th I am all in favor of simplifying the thresholds for when an OWTS needs evaluation/replacement or upgrade, made in conjunction with a Building permit application. Currently, depending on the degree of proposed improvements, the OWTS would be subject to Class I/Code Compliant (Best Available) for any increase in flow or an elective rebuild; Class II (Best Practical) for a major addition, bedroom swap (primary/secondary unit), &gt;640 sf R occupancy detached structure, and for a catastrophic event rebuild; or Class III (Best Conventional) OWTS criteria for any interior remodel and/or non-bedroom additions and detached accessory structures.</p> <p>The determination of a Class II Best Practical system in conjunction with proposed property building improvements, requires reliance on Best Professional Judgement and an upgrade of an existing non-conforming (Class III system). A Class III (Best Conventional) OWTS which, at a minimum would be a tank and leach lines or a seepage pit.</p> <p>If requirements are too onerous, many property owners may bypass permit requirements altogether. Conversely, if the regulations are simplified to the extent that everything is either code compliant or existing non-conforming, you reduce the potential opportunity to voluntarily upgrade an OWTS and only the financially well to do will be able to afford to meet the requirements for a Replacement OWTS with all the bells and whistles.</p> <p>Currently, Class II and III OWTS require a Conditional Statement, with the notarized signature of the property owner acknowledging the system limitations. This scenario often applies to those instances that involve installation of a replacement tank and/or dispersal field to an undocumented system, including cesspools.</p> <p>It appears that under the proposed draft regulations that many property owners would not qualify for existing non-conforming status if reserve replacement area was limited or if the determination of depth to groundwater was an issue.</p>	<p>Section 6 mirrors the State’s OWTS Policy approach of a new system, a replacement system or a repair.</p> <p>The proposed OWTS Manual requires a code compliant system for new systems and for replacement systems.</p> <p>The proposed OWTS Manual requires a code complaint system for new wastewater flows and requires verification of a non-conforming system for many improvements to existing strucutres. A new system and a replacement system have the same standards.</p> <p>A conditional statement is a recognition the propose septic system does not meet current code. This practice condones a system that is not consistent with local and state standards. Staff cannot support this approach in light of the State’s OWTS Policy.</p> <p>The County only gets involved septic system if clients apply for a septic permit, a building permit for new structures, a building permit for improvements to existing structures beyond repairs or upon a complaint of a failure system with surfacing effluent.</p>	N	
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36	RSwift	6.5	6.5.B.3	<p>As noted in Comment 4.13.1, it needs to be recognized that there are many parcels created prior to 1971 and were developed prior to the requirement to have 100% reserve replacement area. Indeed, a significant proportion of these existing developed parcels on OWTS were not documented, the county has no record of the systems, or systems were permitted in the past that have marginal to no reserve replacement area available. Once again, the cost of compliance is not commensurate with degree of benefit (information) gained.</p>	<p>Under this section, 6.5.B.3, the review of the expansion area is predicated on the amount of land encumbrance. The approach is to prevent over development of the parcel to the point a replacement system could not be installed when it will be needed.</p> <p>If the County allowed development to the point an expansion area is no longer viable, one could argue and potentially hold the County financially liable for allowing over and unreasonable development. Sonoma County Code requires the County to ensure the parcel has to ability to adequate absorb sewage effluent. Allowing development to the point of not having an expansion area seem scontrary to the Sonoma County Code.</p>	N	
37	RSwift	6.9	6.9.A.2.a & b	<p>Under the Draft requirements, all previously permitted Voluntary Repairs and a significant percent of previously permitted OWTS “when documentation is missing or shows non-compliance with current standards” and unpermitted OWTS would be subject to a Findings Report. This would impose an undue economic hardship upon the many homeowners who wish to improve their properties (without increasing flow) and are unable demonstrate that they meet current standards; all existing non-conforming systems, in addition to the unpermitted systems.</p>	<p>The County is obligated to ensure there is a system other than cesspool in place for each dwelling unit.</p> <p>We are proposing to evaluate the type of system when a client applies for a building permit that modifies the dwelling unit or adds space as an accessory structure to that dwelling..</p>	N	
94	SBrown	4.13	4.13.A 1 2	<p>Parcels conditioned and created under the Sonoma County Subdivision Ordinance adopted October 1971 requires a 200% replacement area. All other parcels require a minimum 100% replacement area.</p> <p>Include in reserve expansion area sections for each system type, where applicable.</p>	<p>Comment noted. Section 25-17(f)(1) requires there be sufficient unencumbered area to expand or replace the OWTS by 200%. One would hope the subdivision process would condition all new parcels with this requirement. However, this requirement applies regardless.</p> <p>The percent of system (100 vs 200%) is independent of system type.</p>	N	

95	SBrown	5	5	<p>Rename to Abatements, Abandonments, and Repairs</p> <p>Add a Section for Voluntary Repair</p> <p>Each repair section could include a provision for repairs of systems with designated replacement areas with documented soil conditions can proceed as shown on the original design provided no Prohibitions under Section 4.2 are violated.</p> <p>Systems without designated replacement areas on the original system plan, or replacement system plans without documented soil conditions, will require soil analysis prior to replacement system permitting and installation.</p>	<p>Comment noted.</p> <p>Under the State’s OWTS Policy, a voluntary repair is considered a replacement system. Regardless of who initiates the work, the work is considered a replacement system and not a voluntary repair. The proposed language is consistent with State policy.</p> <p>If the land area subject to the replacement has been adequately evaluated, that information can be used. If not, the design parameters will need to be evaluated.</p>	N	
96	SBrown	7.12	7.12.A	<p>Cumulative Impact Reports have typically been required for large systems or individual systems concentrated together where design flows exceed 1500 gallons per day.</p>	<p>Comment noted. Seems like we should have a flow rate based design criteria.</p>	Y	<p>Section 7.12.A</p> <p>A. <u>For OWTS greater than 1500 gallons per day</u>, cumulative impact studies may be required ...</p>
97	SBrown	9.1	9.1.B	<p>After “60 minutes per inch or less” add “at proposed trench depth”</p>	<p>Agreed. See revised section 9.1.C.</p>	Y	<p>Section 9.1.B</p> <p>B Standard OWTS may be allowed in areas with soil percolation rates of 1MPI to 60MPI at trench bottom. <del>Soil percolation rates of 61 to 120 minutes per inch require installation of a non-standard OWTS.</del></p>
98	SBrown	9.1	9.1.C	<p>Need to define soil depth. Consider adding the language from 9.6A 5. For proof of soil below trench bottom and include 120 minutes per inch for minimum acceptable permeability for soil below trench bottom and morphology estimate of 0.2 gallons per square foot per day.</p>	<p>Agreed. Language similar to acceptable soil.</p>	Y	<p>Section 9.1.C</p> <p>D. The minimum soil depth below the leaching trench shall be 3 feet for a Standard OWTS <u>with soil percolation rates of 1 to 120MPI.</u></p>
99	SBrown	11.1	11.1	<p>Remove Table 11.1. Why increase wine tasters to 3 gallons over the previous 2.5 gal. Special event policy under 11.3 C 1 references 2.5.</p> <p>Recommend keeping 2.5 gal, but change one place or the other for consistency.</p>	<p>Comment noted. Wine tasting and special events are not the same activity. Wine tasting seems comparable to the bar and cocktail category of Table 11.1 which uses 3 gallons per person. Special events may include wine tasting, but not necessarily, and are of a different nature than routine wine tasting.</p>	N	
100	SBrown	13.3	13.3.B.1.c	<p>Add average to “rates faster than 1 mpi”</p> <p>Same for all other systems: 13.4 B 2; 13.5 B 2 a;</p>	<p>Comment noted. No change is recommended.</p>	N	

101	SBrown	13.3	13.3.C.1 2.a.v	Provide 24 inch squirt height for 3/6" holes and 60 inches for 1/8" holes. Same for other systems under 13.4 C 6 e; 13.5 C 7 a vi	Comment noted. No change is recommended. Willing to discuss with LUAP TAC.	N	
102	SBrown	13.3	13.3.C.1 2.b.iii & iv	<p>Schedule 40 or 80 valves should be acceptable. The operating pressures for these components should not exceed performance standard for sch40 valves. (Same for other non std systems)</p> <p>Include Bottomless Sand Filter in Alternative Systems without the Geographic Waiver Criteria.</p> <p>This would require Site criteria, Design criteria, Construction criteria, and Performance well criteria similar to mound systems. Bottomless sand filters have been installed in many locations in Sonoma County where soil depth and ground water conditions meet mound criteria but space constraints make the containment framing fit site setbacks more favorably. I would recommend keeping the requirement for 24 inches of sand in the filter. The sand should be placed at the ground surface.</p>	<p>Comment noted.</p> <p>Agreed for ball valves. The standard is being revised to be schedule 40.</p> <p>For BSF, Permit Sonoma will submit a request to the RWB. No change is recommended at this time.</p>	Y	<p>13.3.C.12.b.iii &amp; iv: iii. Balancing valves shall be PVC Schedule <del>80</del> <u>40</u> (or higher) gate valves. iv. Purge valves shall be PVC Schedule <del>80</del> <u>40 or higher</u> gate or ball type valves.</p> <p>13.4.C.7.a.i &amp; ii: i. All balancing valves shall be PVC Schedule <del>80</del> <u>40</u> (or equivalent) or higher gate valves. ii. All purge valves shall be ball or gate PVC Schedule <del>80</del> <u>40 or higher</u>.</p> <p>13.5.C.7.b.iii: c. Balancing and purge valves shall be PVC Schedule <del>80</del> <u>40 or higher</u> gate or ball type valves.</p> <p>Figure 13.3f (label): SCH <del>80</del> <u>40</u> PVC or higher GATE VALVE (TYP)</p>
103	SBrown	13.7	13.7.B.5	Drip systems should follow at grade and mound systems to allow fill up to 25 percent.	One can go steeper than the standard if justified with a variance.	N	
104	SBrown	13.7	13.7.C.3	<p>Recommend adding that drip lines may be installed at the ground surface with 12 inches of fill soil cover.</p> <p>Less than 12 inches of soil cover over the drip tubing requires disinfection.</p>	Comment noted. No change is recommended. Willing to discuss with LUAP TAC.	N	

25	SRayani	1	General	Yes, the provisions regarding when pretreatment systems are required are incredibly unclear and unfair to businesses. I am not sure if, for example, your tanks or your parcel need to be within 600 ft of a body of water to require pretreatment systems. Pretreatment systems are also very expensive. If, in fact, the 600 ft requirement requires every septic tank within a parcel to have a pretreatment system – that is outrageous. The pretreatment system requirement should only be required for septic tanks within 600 ft of a body of water. No subsidies are being provided to business or any other help regarding this new regulation. This law is supposed to be effective by the end of the year and it hasn't even been finalized. I would also want to speak to someone about this regulation. There is no contact information	600 feet either references the Russian River TMDL or the Tier 3 (Impaired Waterbody) section of the OWTS Policy. In either case additional requirements beyond a standard system is required. Either advanced treatment or TMDL standards (to be developed by the Regional Water Board) will become the standard. Both are being required by the State.	N	
8	TDurham	1	General	During the last few years a routine inspection by Sonoma County resulted in a recommendation to eradicate, moles/gophers from my leach field. With respect, in some coastal areas (like my house) this is simply not possible. The quantity and frequency of toxins to accomplish this goal is beyond not healthy. I practice good septic maintenance and strive to adhere to county guidelines, but asking for something not practical or possible is not reasonable.	Comment noted.	N	
38	TNguyen	4.13	4.13.A.1	Should read parcels created before October (not September) 1971 require 100% reserve expansion area	The proposed language reads as prior to October 1971 requires 100% replacement area and October 1971 or after for 200% replacement area. We do not cite the month of September 1971.	N	
42	TNguyen	4.7		I must have overlooked this in the policy: is there a section that talk about replacement of septic system:  Such as the requirements of a permit application, fee pay and two septic plans.  If the design shows only new leach lines be installed, then we shouldn't have to upgrade or check the existing septic tank by performing water tightness test.	Section 4.7 addresses application contents. Fees are established by fee ordinance and are not included within the OWTS Manual.  In existing development situations, one can submit an application for a tank only or a dispersal system only or both.	N	
40	TNguyen	6.11	6.11.B.4	What if the hydraulic load test resulted in a rating of marginal or poor, does the septic system needs to be repaired?	Possibly, but there are three other methods to assess system performance outlined in section 6.11.B.	N	

39	TNguyen	6.7	6.7.B.2	The finding report should include the number of bedrooms served by the system if there is a clear septic permit which indicates the number of bedrooms. If not, we shouldn't have to go to an extent of researching the building plan and assessor record to get the number.	Comment noted. The findings report should note the system's size or capacity in terms of number of bedrooms.	N	
41	TNguyen	9.2	9.2	What is the separation distance between leach lines with more than 12" of drain rocks below leach pipe? Is it's still 8 feet? If so please noted in the policy.	Yes, it is still eight feet. Section 9.2.A is being edited to clarify.  Slopes greater than 30% are addressed under section 4.2.C.4	Y	Section 9.2.A: A. Dispersal trenches shall be installed on contour. B. Dispersal trenches shall be place a minimum of eight feet on center <u>regardless of the depth of drain rock.</u> <del>on slopes up to 30 percent.</del>
43	TNguyen	13.2	13.2 12.C	There is a typo	Please be more explicit regarding the typo.	N	
44	TNguyen	13.2	13.2 12 D9	Perform hydraulic load test after the distribution has been completed. a. hydraulic orifice discharge shall be a minimum of <u>36 inches</u> for upward discharge for orifice size of <u>3/16 inch</u> . It is difficult to discharge 60 inches with a large orifice of 3/16 inch.	Comment noted. No change is recommended. Willing to discuss with LUAP TAC.	N	
72	TWalker	1	General	I was the representative from Sonoma County and the California Environmental Health Associated that worked with Darrin Phloem's of the State Water Resources Control Board Committee on AB885. I state for the record, that these new regulations are basically a One Size Fits All Policy and exceeds the requirements from AB885.	Comment noted. Comment lacks specificity on where the standards exceed the State's OWTS Policy.	N	
73	TWalker	1	General	The revised regulations make reference to TMDL regulations. However, the revised policy precedes the Regional Boards Adoption of the Lower Russian River TMDL and fails to provide a funding mechanism for home owners to finance potential upgrades to their septic systems. Therefore, the revised regulations are not complete and not comprehensive. We should wait until the Regional Board has completed their work.	Comment noted.	N	
74	TWalker	1	General	The current regulations adopted is 2016 are more user friendly than the proposed regulations. And they were accepted by the NCRWQACB.	Comment noted. Actucally the 2016 was not acceptable to the RWB and they commented as such.	N	



91	TWalker	1	General	<p><b>Costs and Staffing.</b> It is evident that in the majority of these citations, the cost to evaluated, hire consultants for repairs, installing extra septic tanks, etc. will have a major cost to the proper owner. In addition, PRMD does not have sufficient staff to handle the case work. The size of the staff should be doubled. And responsibility of the work – the state OWTS policy has citations and reporting activities for the LEA. At this time, PRMD has not submitted the required annual Operational Permit Report in over the last 5 years. What makes us think that they will submit the new Cummulative Report to the Regional Board on a yearly basis.</p>	Comment noted.	N	
92	TWalker	3	H	<p>Defintions: You need to clarify: Hydrometer (add Buoyocous Hydrometer Method to the sentence.</p> <p>Soil Survey, you need to add soils classifications and mapping as per the USDA Soil Survey Book for Sonoma County.</p> <p>And NSF, you do not have a definition for NSF. You need to add this.</p>	Agreed on definition and spelling out the acronym for NSF.	Y	<p>Section 3 Hydrometer Analysis is a test used to determine the grain size distribution of soils passing the number 200 sieve (<u>ASTM D 7928-17</u>).</p> <p><u>NSF means NSF International (a.k.a. National Sanitation Foundation), a not for profit, non-governmental organization that develops health and safety standards and performs product certification.</u></p>
76	TWalker	4.2	4.2.A	<p><b>Shared Septic Systems:</b> There are difficult areas in Sonoma County with small limited parcel size: such as Fitch Mountain, Monte Rio, Camp Meeker, Jenner. It would be creative and practical to allow neighboring parcels to share the same septic tank and leachlines (with the benefit of an Operational Permit). This can be written similarly to a Shared Water System Agreement: where shared systems will share in cost, operation, and maintenance of ownership of a Share Septic System. This example exists in the Oddfellows Community System, Palamino Lakes north of Healdsburg, and the Forestville Community System. This would greatly improve these communities in alternatives and cost savings, – revise to allow Shared Septic Systems and cross property lines on a case by case basis – with a shared septic system agreements and Operational Permit – good for tight areas like Monte Rio, Camp Meeker, Jenner, and Fitch Mountain.</p>	Agreed	Y	<p>Section 4 has been re-written and the edits are too extensive to be displayed in this format. Please see the attached strike-out / underline version of the revised section 4.</p> <p>Sections specific to this comment: Section 4.2 C. Section 4.12</p>

71	TWalker	4.4	4.4	The concepts of not allowing a general engineering contractor to design a standard septic system repair, and require a consultant to design a repair will again increase the cost to the homeowner by \$3 thousand dollars or more and delay the permit processing time. The proposed Replacement System criteria is too cumbersome for property owners.. I suggest that PRMD allow General Engineering Contractors and C-42 contractors design a Septic Repair or Expansion of an existing system on a case by case basis – when soil type and percolation tests are on file at PRMD. Look up the Business and Professions Code.	Comment noted.	N	
77	TWalker	4.5	4.5	<b>Domestic Wastewater Flow:</b> ;the revised regulations still require a design flow of 150 gallon per day per bedroom, for standard septic systems. However, the UPC was revised over 25 years ago, requiring the installation of Low Flow Fixtures throughout the residence. It is time to update the regulations, and require that the design wastewater flow of a residence be sized at 120 gallons per bedroom per day, and without the need of a <b>diversion</b> valve Currently Prohibits Shared Septic Systems	Agreed.	Y	Section 4.5 A. Residential wastewater flows used for design of OWTS for <u>new</u> single family residences, ... bedrooms multiplied by a factor of <del>150</del> <u>120</u> gallons per day per bedroom for the first 5 bedrooms, plus <del>75</del> <u>60</u> gallons per day for each additional bedroom, ...  D. Reductions of wastewater design flows up to 20 percent <u>for dwelling units constructed prior to 1998</u> shall be approved by the Permit Authority when each of the following is provided:  Table 4.5 – use 120 per bedroom throughout table.
70	TWalker	4.7	4.7	The revisions are not minor. The change in eliminating a <b>Voluntary Repair</b> , would require property owner to hire a consultant to pay for, submit, and wait for PRMD staff to schedule a site evaluation will increase the cost to the home owner \$3 to \$6 thousand dollars. This will increase the permit processing time 3 to 6 months, and delay the ability to <b>repair</b> a septic system in need or work. I suggest that Repair Permits stay in the regulations	Many repairs are permit exempt. Installing a leach line in a new trench is a replacement system. Many “voluntary repairs” are not repairs.	N	
199	TWalker	4.9	4.9	Reconstruction of existing leachlines. Contractor may reconstruct existing leachlines.	Section 4.9 specifies that a repair permit includes work within an existing leach line.  Section 4.4 authorizes contractors are allowed to submit for repairs.	N	

82	TWalker	5	5	<p>Where does the 25% rule apply for c-42's? Section 5 (Repairs and Failures) no one is going to follow this new section. What happened to repairing a Marginal Operating System? Do you have to wait until it burst out of the ground? This should be 50% or larger.</p>	<p>The 25% rule is in section 4.9 OWTS Permits Required and is one of the distinctions between a repair and a replacement.</p> <p>Section 5.3 was added to expedite failing systems. If clients do not inform the county that they system is in failure, the project will be treated as a routine repair or replacement, depending on the scope of work.</p>	N	
80	TWalker	6.4	6.4.C.2	<p>Since the last BOS hearing, PRMD has added a requirement to require <b>ADU's have their own septic tank</b> – because they will have their own kitchen. The reason? The national way to design a septic tank is based upon the number of bedrooms, at 2 persons per bedroom per day. See EPA design manual. PRMD theorizes a higher BOD or Suspended Solids lever with the ADU with kitchen – well this is not correct. It still gets down to the number of persons. In Sonoma County and throughout the country, there are multiple units on one septic tank. And that septic tank is sized per the total number of bedrooms. This is not been a problem in hydraulic loading on a septic system. In fact, the state OWTS manual calls for hydraulic loading for domestic wastewater to be less than 300 ppm BOD.</p> <p>This proposal would be extremely expensive (over \$8,000) for each tank, plus the cost of installation, plumbing, etc. This is a waste of resources in Sonoma County. There will not be enough septic tanks to go around,</p> <p>Will not work for Aerobic Systems (Hoot, Norweco, BioMicrobis), there would be insufficient bacterial in the treatment unit to properly function, Systems now require effluent filters. Effluent filters have been found to reduce hydraulic loading (reduced BOD and Suspended Solids) leaving the septic tank,</p> <p>This would prevent shared or cluster septic systems. Look at Oddfellow Park, Palomino Lakes and Forestville Estates. They all have a shared septic tank for multiple units and have not experienced problems, Look in the Operational Permit Files, projects with multiple units with one septic tank have not reported any problems.</p>	<p>Agreed. Section 6.4.C.2 is being deleted.</p>	Y	<p>Section 6.4.C.2  <del>2. The ADU shall have a dedicated septic tank; or</del></p>

83	TWalker	6.4	6.4.C.2 & 3	Sectoin 2 does not make any engineering sense. See longer discussions. The rest of Section 6 is a mess. Would have been easier to keep Class 1, 2, and 3.	Comment noted. Staff have proposed to eliminate the dedicated septic tank and rely on either the existing system having capacity or a new septic for the ADU.	Y	Section 6.4.C.2 <del>2. The ADU shall have a dedicated septic tank; or</del>										
84	TWalker	7.12	7.12	Cumulative Impacts, insert the refence to the Ramlit Methodology.	Commented noted. We will the reference to this section.	Y	Section 7.12.G G. <u>The cumulative study shall be conducted in accordance with the Ramlit Methodology.</u>										
81	TWalker	7.5	7.5.G.3	<b>The three year rule.</b> At the community meeting, Nathan was asked about the three year rule. His explanation made no sense. Rural properties from the 1970's on have not changed storm water, groundwater, and other impacts to septic systems after they have been installed and used. Older wild cat parcels may have like in Camp Meeker, Fitch Mountain, Jenner. But these are pre-code systems. I state this, because PRMD has had an Operation Permit Program since the late 1970's. And PRMD staff, REHS professional have not observed or cited these impacts as assumed by the three year rule. Again, one size does not fit all lots.	Agreed.	Y	Section 7.5.G.3 3. Soil profile readings or observations were made by both a Qualified Consultant and the Permit Authority <del>within the past 3 years</del> <u>and the site conditions have not changed to render the readings or observations invalid.</u>										
86	TWalker	9	9	<b>Delete Table 9.1.</b> Very bad table - It assumes <b>150 gallons</b> per day/bedroom. It could be misinterpreted by staff and consultants. Delete. Section 9.6 Fill Land Systems should allow Drip Dispersal with fill above. It only discusses gravel trenches – see Napa Model	Comment noted. Table 9.1 has been reviesed to reflect a flow rate of 120 gallons per day per bedroom and is for illustrative purposes to provide a general sense of length of leach lines.	Y	Table 9.1 has been revised for 120 gpd/b.										
85	TWalker	12	12	Where is the refernce to Compost Toilets and Incinerator toilets. Should bed added here. Suggest compost toilets, along with an approved OWTS be permitted on parcels 10 acres in size or larger, with typical setbacks.	Waterless toilets are being proposed in a new section 21.	Y	See section 21 which is attached.										
87	TWalker	13.3	13.3	<b>Mound System.</b> There is a major error is Table 13.3d. Simply messes up for downhill soil cover. Needs to be fixed. <b>Also,</b> should allow Drip dispersal in the gravel bed, provided the wastewater is pretreated. This new system works best, small incremental doses is best	Agreed. There were errors in the table. Propose to fix table by using the soil cover requirements from an earlier version of Policy No. 9-2-8.  This table will also apply to At-Grade systems.	Y	Table 13.3d Mound/At-Grade Downhill Soil Cover Requirements <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Slope Percent</th> <th>Cover (lineal feet)</th> </tr> </thead> <tbody> <tr> <td>0-2</td> <td>4</td> </tr> <tr> <td>2-4</td> <td>6</td> </tr> <tr> <td>4-6</td> <td>8</td> </tr> <tr> <td>Greater than 6</td> <td>10</td> </tr> </tbody> </table>	Slope Percent	Cover (lineal feet)	0-2	4	2-4	6	4-6	8	Greater than 6	10
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79	TWalker	13.3	13.3.C.1 2.a.v	<p><b>Hole Orifice Size for Pressure Dosed Systems:</b> I see that the revised OWTS manual now makes the hydraulic squirt test at <b>5 feet high</b>, despite the orifice size. This again is incorrect. The text should say; for orifice size of <b>3/16 inch in diameter, the hydraulic lift shall be 2 feet. For systems sized with 1/8 inch in diameter, the hydraulic lift shall be 5 feet.</b> Note: the way it is written, the design may cause the system to overload or flood the dispersal system. This needs to be cleaned up. Here again, is one size fits all. The designer should decide.</p>	<p>Comment noted. Not proposing changes. Willing to discuss at LUAP TAC.</p>	N											
88	TWalker	13.4	13.4	<p><b>STPD</b>, allow use of Drip Technology for dispersal in trenches with pretreatment.</p>	<p>The comment appears to be creating a new type of system. One could request this through a variance or through the experimental / alternative program.</p>	N											
89	TWalker	13.5	13.5	<p><b>13.5 At Grade</b>, Soil on downhill size graph is wrong, Use 5 feet around the entire system, Allow use of Drip Technology with pre-treatment for dispersal. 13.5 Use a better cross section. Tables 13.3d and 13.5a are simply wrong. Delete these.</p>	<p>While we recognize the Wisconsin At-Grade Manual allows for a five foot cover on all sides, our standards, before the OWTS Manual revision process, required down slope cover consistent with the downslope soil cover requirements for mound systems. This has been our practice going back to at least 2010.</p> <p>Understanding that the terrain in Sonoma County, in many locations, has much greater slopes than in Wisconsin, additional downslope soil cover is needed.</p> <p>Table 13.5a is being deleted and we propose to use Tabel 13.3d for both At-Grade and Mound downslope soil cover requirements.</p>	Y	<p>Table 13.3d is revised below and Table 13.5a is being deleted.</p> <p>Table 13.3d Mound/At-Grade Downhill Soil Cover Requirements</p> <table border="1" data-bbox="2029 836 2499 1031"> <thead> <tr> <th>Slope PercentTACe</th> <th>Cover (lineal feet)</th> </tr> </thead> <tbody> <tr> <td>0-2</td> <td>4</td> </tr> <tr> <td>2-4</td> <td>6</td> </tr> <tr> <td>4-6</td> <td>8</td> </tr> <tr> <td>Greater than 6</td> <td>10</td> </tr> </tbody> </table>	Slope PercentTACe	Cover (lineal feet)	0-2	4	2-4	6	4-6	8	Greater than 6	10
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4-6	8																
Greater than 6	10																

78	TWalker	13.5	13.5.C.6	<p><b>At-Grade Non-Standard Systems;</b> I have mentioned in the past, that there is a technical error in the regulations regarding the Downhill Soil Cover for At-Grade Septic Systems on sloping sites. The text is the regulation is technically wrong. For At-Grades Systems, despite the slope: the soil cover around the entire gravel bed <b>is 5 feet</b>. Your regulation calls to extend the soil cover up to 15 feet downhill, past the gravel bed on sloping site.. This will not allow a dual gravel bed, interrupt the ability to design and install the proper expansion area, and make the system not. . There are systems installed in Sonoma County at this time, with the 5 foot soil cover. PS: There is not a downhill slope correction factor for At-Grades Systems. <b>Note: James Converse and Jerry Tyler of the University of Wisconsin have given presentations here in Sonoma County (sponsored by CEHA) on the proper design of Mound and At Grade systems. Note: This version of the regs were copied from the Napa County OWTS, word for word. And they have been notified that they are incorrect.</b></p>	<p>While we recognize the Wisconsin At-Grade Manual allows for a five foot cover on all sides, our standards, before the OWTS Manual revision process, required down slope cover consistent with the downslope soil cover requirements for mound systems. This has been our practice going back to at least 2010.</p> <p>Understanding that the terrain in Sonoma County, in many locations, has much greater slopes than in Wisconsin, additional downslope soil cover is needed.</p> <p>Table 13.5a is being deleted and we propose to use Tabel 13.3d for both At-Grade and Mound downslope soil cover requirements.</p>	Y	<p>Detele Table 13.5a</p> <p>Section 13.5.C.6.c. 6.c Soil cover shall extend to a minimum of 5 feet uphill and on both sides of the gravel bed. Downslope soil cover shall conform to Table <del>13.5a</del> <u>13.3d</u>.</p>
197	TWalker	13.8	13.8	Add Bio Microbics MBR to list of approved pre-treatment units.	Commenter is welcome to submit system to either the experimental or alternative program.	N	
75	TWalker	18	18	The revised regulations still have reference to Special Area Standards, aka: Waiver Prohibition Areas. With the advent of newer technologies and alternative systems – this entire section is very old and out of date. As per the Regional Board Comments, they no longer prevail. And as such, should be removed from the text. I will mention this again later.	Comment noted. The appropriate waiver prohibition areas will be removed once the TMDL standards and the County’s APMP are in place.	N	
90	TWalker	18	18	<b>Waiver Prohibition Areas:</b> This is a good time to clean up and remove all of the waiver prohibition areas cited in the OWTSS manual. There are very old, and not practicle anymore, and new technology handles most difficult site and soil conditions. Simply, they should be removed, they are not required by either RWCB.	Comment noted. The waiver prohibition areas will be removed once the TMDL standards and the County’s APMP are in place.	N	