

ID Num	Section #	Commenter	Comment/Suggestion	Response
117	All	Jeff Loe	This document was initially poorly written and the additions and deletions do not improve overall quality. I recommend hiring a professional editor to proofread document, refine definitions, improve language, and omit redundancies.	
243	All	Pete Lescurie	<p><b>RETAIN THE SERVICES OF A PROFESSIONAL EDITOR TO DO THIS JOB WELL</b>, rather than relying on a bunch of amateurs who are busy conducting the rest of their lives and businesses. I consider this approach to be a total folly, destined to sow confusion and make yours and your staff's work ever more burdensome dealing with all of the newly created "legal, non-conforming" systems.</p> <p>Some time ago, prior to the official Blue Book I, in collaboration with the newly formed LUAP, attempted to enlist the Board of Supervisors in funding a professional editor to compile the loose collection of policies and procedures into an organized collection. Rich Homer sought \$25,000 from the BOS for that effort, who sadly and shortsightedly did not see the wisdom and denied the request. Imagine the headaches that would have avoided or at least ameliorated in the ensuing years.</p> <p>Out of that effort, we got the Vesting Ordinance which LUAP identified as the highest priority out of the extensive Table of Contents subjects we had compiled. Karen Waelde, Mark Stevens, and I wrote it Mark Kostielny vetted it and County Counsel slightly modified it. The Vesting Ordinance was created as a defense for property sellers/buyers to deal with the ever-changing regulations and staff interpretations.</p>	

244	All or most	Pete Lescuré	<p><b>DELETE ALL THE PRESCRIPTIVE REQUIREMENTS</b> as they hamstring designers in their creative efforts to solve real problems. This was one of our greatest issues responding to AB885 to create the Statewide standards. That’s why it took four iterations and 11, 12, 13 ? years to get to the final version.</p> <p>As I, along with my COWA colleagues and several other bodies, commented to the SWRCB drafters of the first couple of versions, “With such prescriptive standards we will never solve the real problems in the existing ancient second home communities on our waterways which have become a major source of moderate income housing in California”.</p> <p>Designers require the flexibility to apply their knowledge of scientific and engineering principles, not to be restricted by rigid, prescriptive doctrine.</p> <p>If you feel you must retain the prescriptive standards, place them in the appendices as guidelines or “suggested methods of addressing <b>common</b> circumstances and situations.”</p>	
020	General	Ted Walker	<p>I do not have time to complete my review of the proposed OWTS regulations. I respectfully request that you extend the time period for comments an additional 4 months. There is no need to rush the proposed changes. Was there a need to alter the percolation test requirements? For 10-minute perk tests, you just do not want to look at the fall between the 11<sup>th</sup> and 12<sup>th</sup> reading. You really are trying to find the stabilized rate. Why are you changing this? Has there been a problem?</p>	
024	General	Rich Holmer (12/30/2021)	<p>There are references to both the OWTS manual and the LAMP. I had thought your intent was to submit the OWTS manual to the RWQCB as the county's LAMP. If not, is there a separate process for the LAMP?</p>	

<p>099</p>	<p>General comments about the approach</p>	<p>Elsa Frick</p>	<p>I believe this document is too detailed and inflexible to be a “regulation” or even a LAMP. Frankly it is not clear if it is intended to be a LAMP. I believe it is possible to create a document that addresses the State OWTS LAMP requirement sufficiently and addresses policies or tech bulletins that have flexibility. At least some flexibility to make changes needs to be available.</p> <p>As a case in point, look at what it is taking to get the at-grade drip systems approved, through what appears to be a discretionary process with staff eliminating language in reports, etc. Too much staff time reviewing variances, too little direction for staff and designers. This issue could have been addressed over a year ago by the release of a tech bulletin, waiving the need for the variance and streamlining the standards for all to see.</p> <p>Rather than making a guessing game of it. There should still be some kind of vetting process for new policies, but that can be developed as well so that we don’t need a 2 year long project everytime we need to make a change in the standards. This document is way too cumbersome for the issues it tries to address and in too many instances represents a tightening of screws that were not loose.</p> <p>I would suggest bringing in a consultant to work with staff and management to develop critical thinking path analyses to get to answers and solutions quickly. I have too many instances where additional information and testing is asked for and demanded for the sake of a record or compliance with the OWTS strictest interpretations and results in no change to the actual construction plan itself. And changes to the plan that will not result in the system being installed and constructed different than proposed. The meticulous demand for details that truly do not affect the result or change a proposal is strangling development and not necessary.</p>	
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098	Summary of Proposed Changes	Elsa Frick	<p>This summary needs to address the changes regarding the requirement for code conforming expansion areas in the bedroom swap sections and in the 50% rule section. There is no mention of this in the changes summary and there are huge consequences to property owners and developers of properties. The code conforming expansion area requirements can represent years of site work and \$20000 in engineering and fees and months and months of already strapped staff time to accomplish. That needs to be put out for all to see. It is a big change and it needs to be presented as such so that there are no surprises when these restrictions are imposed. Many of these proposed changes will result in currently considered legal conforming systems becoming non conforming. For example, but not limited to, Lack of sufficient numbers of perc tests, standard type systems and other than drip and pd systems on slopes over 30%, mounds and at grades without separation between expansion beds (if this actually goes through), sites approved by mottling or where greater distances between perc test holes was allowed, criteria applied to sizing criteria that doesn't meet proposed interpretations of rates and other</p> <p>The cumulative impact analyses can severely limit development. Address the ramifications and the need for the expanded section. Please Identify all instances where these new regulations will affect existing system classifications and justify the changes in a manner that addresses the public health concerns and compliance with the State OWTS.</p> <p>Please address the need for and authority to ask for information based on making and keeping a record in the summary of proposed changes.</p>	
118	TOC	Jeff Loe	Table of Contents says Pretreatment Units are 13.8 while they are 13.9 in the body of text.	
001	1.1	Ted Walker	Purpose: Discusses the LAMP; has Permit Sonoma submitted the required annual reports to the Regional Boards as outlined in the LAMP and approved by the BOS? Can you give the LUAP members copies of the reports?	
273	1.3.B.4.b	Jessica Chavez	Space between "functioning" and "oil"	
116	3.1	Jeff Loe	Suggestion use the acronym GPD rather than gallon per day	
021	3.2	Rich Holmer (12/30/2021)	The definition of a "qualified inspector" includes a property owner. Is the County going to allow property owners to perform the required inspections in the APMP area? Has the State WQCB bought into this?	

025	3.2	Rich Holmer (1/17/2022)	The definition of a “qualified inspector” in the TMDL area includes a property owner. This appears to allow the property owner to perform the required 5 year inspections. This addresses concerns that I submitted in 2019 regarding the number of qualified inspectors in the county who can perform the required inspections. I still suggest, however, that a properly certified septic tank pumper be allowed to perform the inspections since not all property owners will be willing or able to perform the inspections. The Water Quality Control Board supports properly certified pumpers performing inspections if the County adopts enabling requirements.
002	3.2	Ted Walker	Cumulative Effects: Definition is a little weak. Suggest wording such as Hydraulic Mounding election below an OWTS and the migration of Nitrogen away from an OWTS for large Onsite Systems exceeding an average daily flow of 1,500 gals/day, or where multiple Onsite Systems are closely aggregated on an individual site. Also, refer to the Ramlit Process identified by the North Coast Basin Plan.
003	3.2	Ted Walker	Should add a definition for Gleying. A term used by soils scientist and professionals in logging soil horizons. See USDA.
004	3.2	Ted Walker	Suggest: Add a term, called a Modification of the Onsite SDS. Such as replacing an impacted distribution box, a crushed or impacted pipe between the septic tank and d. box, or an impacted pipe between the d. box and the beginning of the gravel in a standard leachline. In such cases, a septic permit is not required.
005	3.2	Ted Walker	Hydraulic Loading: Add: Where the wastewater applied to a OWTS exceeds the design capacity of the soil conditions, and causes the wastewater to surface of the ground, creating a Public Health Hazard.
006	3.2	Ted Walker	Organic Loading: Add: “Where the quality of the wastewater in an OWTS causes the formation of an organic biomat layer in the dispersal system, that also causes the wastewater to surface of the ground, creating a Public Health Hazard.”
007	3.2	Ted Walker	Qualified Consultant: you have spent a lot of time on this definition as to who can and cannot do. But very simply, we need to add that a Qualified Consultant can be a licensed contractor, to design and install Standard OWTS Repairs.
008	3.2	Ted Walker	Soil Structure Grade: I do believe grading the structure of the soils as 0, 1, 2, and 3 is technically correct. However, in the complete definition of Soil Structure, there are technical Factors that influence structure. They are climate, wetting and drying, organic matter, tillage, plants & roots, microbes, and animals. I suggest that you properly reference the entire definition from NRCS properly, not just part.

009	3.2	Ted Walker	Groundwater: The current definition is very vague. Suggest a discussion with consultants and Permit Sonoma, that in many cases there maybe saturated soils encountered regardless of slope that is simply not groundwater. Also, there should be a historical and geographical reference that groundwater conditions are of a concern in a Basin Type Landscape Formation. Currently GW tests are being asked for far outside of a Basin Landscape. Remember the Basin Plan?
047	3.2	Elsa Frick	as-built plans . This section should only be definitions. This seems to state policy. Making this kind of work for a Permanent Record seems to be an overreach. The gola should only be to correct what was different on the approved septic plan and should pertain to septic only, not the site plan
048	3.2	Elsa Frick	This is the incorrect definition of a seepage pit, correct per CUPC definition
049	3.2	Elsa Frick	add leaching bed Use the definition of the seepage pit.
050	3.2	Elsa Frick	Grade break needs a definition
051	3.2	Elsa Frick	A soil profile is an excavation in the ground that allows for the analysis of the soil including identification of horizons (see definition of horizons) and soil texture, shape, grade, consistence, color and other characteristics of the soil
100	3.2	Greg Schram	Dual Drain Fields – States they are designed at 75%. 100% Drain fields should be allowed too
101	3.2	Greg Schram	Impermeable Soil Layer – Notes Zone four expansive soils are impermeable. This is not always true. Some zone 4 expansive clays are permeable.
119	3.2	Jeff Loe	Use of both <b>Advanced Treatment Unit</b> and <b>Pretreatment</b> is confusing. “Unit” implies equipment to process, maybe leave Unit out of definition and use one of or the other term advanced treatment or pretreatment. Vague references lead to confusion. Leave NSF out or include applicable NSF/ANSI certifications NSF/ANSI 40, NSF/ANSI 245 The standards are set; rely on the standards.
120	3.2	Jeff Loe	<b>Supplemental treatment</b> – The typical primary treatment component of OWTS is a septic tank. Supplemental processes almost always occur after the septic tank. Supplemental treatment definitely occurs prior to effluent dispersal. Recommend cleaning up definition.

121	3.2	Jeff Loe	<b>Restore definitions of Perennial, Intermittent and Ephemeral Stream.</b> Seems impossible to regulate water quality without these definitions. Perennial and Ephemeral are both terms used in the basin plan.
122	3.2	Jeff Loe	Should <b>Swale</b> definition include there are no distinct banks
123	3.2	Jeff Loe	<b>OWTS Failure</b> – Backing up into plumbing fixtures should be removed from definition OWTS Failure. Sewage back up is commonly caused by building waste drain or building sewer blockage or electrical problem with sewage ejector; neither are part of OWTS.
124	3.2	Jeff Loe	<b>Drain Field or Leach field</b> – Suggest incorporating the term leach lines in the definition.
125	3.2	Jeff Loe	Dispersal System – why include evapotranspiration and infiltration bed in the definition if not used anywhere else in the document.
126	3.2	Jeff Loe	<b>OWTS, Replacement</b> is an OWTS that has its treatment capacity expanded, or its dispersal system replaced or added onto. Good example of redundant statement suggest removing either expanded or added on to.
127	3.2	Jeff Loe	<b>Strikeout Red text adds nothing &amp; distracts from definition- Post-Construction Storm Water Treatment Facility</b> means a <del>structural best management practice</del> <b>stormwater feature to</b> retain, detain, infiltrate and/or treat storm water runoff. <del>These facilities are specifically designed for post construction applications and remain on the landscape after construction has been completed.</del>  Examples include wet ponds, dry basins, multi-chamber catch basins, infiltration basins/trenches, dry wells, porous pavement, grassy swales, filter strips, artificial wetlands, and rain gardens. <del>This definition does not include active construction storm water best management practices such as straw wattles, silt fences, silt basins or similar practices typically used during construction.</del>
128	3.2	Jeff Loe	<b>Pressure Dosing</b> – applies to more than dispersal fields, include treatment processes.
129	3.2	Jeff Loe	<b>Reserve Replacement Area</b> – align with section 6.6 use of word suitable suggests code compliant. All reserve areas may not be code compliant.
130	3.2	Jeff Loe	<b>Site</b> – I do not believe this definition is necessary at all, but if using it please pluralize area(s) in reserve replacement area(s)

245	3.2	Mike Treinen	Having owners as a qualified inspector is a bad idea. Hard to believe owners are included. Add "other category of inspectors as approved by the PRMD Director" as the volume of inspections will likely exceed the number of experienced industry personnel.	
274	3.2	Jessica Chavez	Advanced Protection Management Plan Recommendation: Remove last sentence, "Currently there are two within Sonoma County; Sonoma Creek and the Russian River." Reason: This may change over time, direct to a reference location that is not in the OWTS Manual.	
275	3.2	Jessica Chavez	Atterberg Limit Analysis Recommendations: ...when zone 3 or zone 4 soils... Reason: Wet weather percolation test always required when soil texture falls into zone 4, so we don't need to determine PI of zone 4 soils.	
276	3.2	Jessica Chavez	Class 2 Permeable Material Section 68-1.025 might be an incorrect reference. See attached CalTrans Standard Specifications; 68-2.02F(3) Class 2 Permeable Material.	
277	3.2	Jessica Chavez	Add "Leaching Bed" definition from the attached California Plumbing Code H301.0.	
278	3.2	Jessica Chavez	Change "Seepage Pit" definition to match the attached California Plumbing Code H701.0. Recommended definition: Seepage Pit means an empty circle pit, that is typically 4 to 6 feet in diameter, and is lined with whole new hard-burned clay, concrete brick, or other approved materials as defined in the California Plumbing Code H701.0. is a pit filled with drain rock into which effluent	
279	3.2	Jessica Chavez	Soil Horizon or Layer Recommendation: Remove last sentence, Soil horizon is also known as soil zone.	



280	3.2	Jessica Chavez	<p>Soil Profile                      Recommendation: Definition to read as follows, "Soil Profile is the description of soil horizons observed in an excavation, typically observed during the soil evaluation field study. Soil horizons are described by the soil's texture, color, structure, consistence, and other pertinent characteristics."</p> <p>Reason: A Soil Profile is not the field study. The proposed "soil profile" definition is a description of a pre-perc. Grade is not used in Sonoma County's soil horizon descriptions.</p>	
131	4.2.A.4	Jeff Loe	If variance is required state that.	
246	4.2.B.13	Mike Treinen	This is in the "Prohibited" section. A first glance makes it look like non-domestic OWTS are prohibited. Provide referral language to the section where they <u>are</u> approvable.	
055	4.2.B.9	Elsa Frick	Seepage pits are not allowed per this OWTS once the definition of the seepage pit is corrected. This OWTS makes no provision of r seepage pits as .properly defined	
281	4.2.B.9	Jessica Chavez	<p>If California Plumbing Code definition of Seepage Pits is included, then it is recommended that they be listed as prohibited.</p> <p>Recommended Addition:                      9. Separation of the bottom of dispersal system to groundwater less than 10 feet.                      Seepage pits meeting the California Plumbing Code definition in Section H701.0.                      Leach beds previously referred to as seepage pits shall be allowed</p>	

102	4.3.A	Greg Schram	<p>Mitigations to prohibitions – A 3, 6 and 7</p> <p>3 – Any type of system shall be allowed as long as it meets soil requirements and the geotechnical engineer states it is safe.</p> <p>6 – Whether a tree can be removed or not should be up to a geotechnical engineer.</p> <p>7 – There is no reason to make the soil requirement more restrictive. Again should be up to the geotechnical engineer. Also if it is a steeper slope the effluent is going to want to travel faster horizontally rather than vertical, so not sure why deeper soils would be required.</p>	
026	4.3.A	Rich Holmer (1/17/2022)	<p>This has been changed substantially. The section now requires drip systems or shallow trench pressure distribution systems on slopes over 30% and also requires three feet of soil below the trenches. This substantially increases costs of replacement systems for existing residences on steep parcels. If the property does not meet the three feet of soil requirement, it appears that they will need to file for waste discharge requirements from the WQCB (Section 22.1).</p> <p>In the current County OWTS policy, all that is required if a dispersal system is on a steep slope is a slope stability report without a requirement for any specific system type.</p> <p>The justification for this change is unclear. I request that changes that deviate from the State OWTS policy and adopted codes be clearly substantiated by scientific evidence that supports the need for the proposed requirement.</p>	
303	4.3.A	Tammy Martin	<p>For slopes over 30% slope, a slope stability study by a geologist (&amp; waiver) should still be allowed for all systems assuming depth of soil for that particular system is present.</p>	

052	4.3.A.3	Elsa Frick	The systems on steep slopes should not be limited to drip or PD systems only. There is no evidence of standard system (or other systems ) failure on steep slopes where a registered geologist has determined there would be no issue with such a system. Adding this restriction to steep slopes is not necessary or warranted. This change in policy from past practice renders all existing systems on steep slopes now legal non conforming. Many standard (including shallow sloping) systems are on steep slopes in Sonoma County, vetted by geologists and there have been no documented failures of them. This requirement drives up installation and operating costs and has no factual supporting reason for it
282	4.3.A.3 to 4.3.A.7	Jessica Chavez	<p>Recommendation and Reason: Remove system specifics and allow for systems approved by the geotechnical engineer; we are already depending on them to determine the slope stability of the design proposed. If the system meets soil and groundwater requirements, <i>and is approved by geotechnical engineer</i>, then no special are depths needed. There are new tools and equipment coming out to meet construction needs as these types of systems become more common, so it is recommended to remove installed by hand. As long as contractors are not cutting roads or benching to use equipment, then with equipment it isn't a concern.</p> <p>3. Use of a subsurface drip system or shallow trench pressure distribution OWTS.  4. Dispersal lines installed by hand.  3. 5. No Benching.  4. 6. Trees six inches in diameter or smaller larger shall are not to be removed.  7. A minimum of three feet of soil depth below the dispersal lines or no evidence of saturation to three feet below the dispersal lines. Dispersal area shall meet all soil depth and separation to perched groundwater requirements</p>
053	4.3.A.4	Elsa Frick	This is not necessary. Many a clever contractor has been able to install standard trenches on steep slopes by building various jigs. The issue is addressed by not allowing benching
247	4.3.A.5	Mike Treinen	Why no benching? Add language that it's OK if the soils are deep enough and slope stability is OK. Also easier to do work on a bench.
132	4.3.A.6	Jeff Loe	Small tree removal may be safer than large tree removal. Tree removal should be subject to review by geotechnical professional.
310	4.3.A.7	Steve Brown	Should require 24" of soil below trench bottom; why 36"

054	4.3.A.7	Elsa Frick	This is an arbitrary addition. Steep sloping sites actually do provide increased soil depth over flat site system simply due to the geometry of the site. There is no justification to require additional depth. Shallow sloping systems provide the soil needed downslope (where the water will travel) and are specifically designed for the steep slope environment. Adding this restriction to steep slopes is not necessary or warranted. This change in policy from past practice renders all existing systems on steep slopes now legal non-conforming	
133	4.3.A.7	Jeff Loe	If one can site a drip system with 24" of soil beneath to 30% slope the additional foot of sub soil is arbitrary. <b>Please offer justification.</b> This could result in more aggressive designs rather than well designed drip fields. Bear in mind that oftentimes a portion of the drip field will be >30% slope, and by lengthening the system into steeper slope areas is good sound design. Also may have been intended to read " <b>and</b> no evidence of saturation". Three feet need not be restated-	
134	4.3.D.1 and 2	Jeff Loe	Simply require NSF/ANSI 40 & NSF/ANSI 245 certified processes be included.	
010	4.4	Ted Walker	Qualified Professional and the chart, it appears that you are not allowing licensed contractors to design septic repairs. I suggest that we clean this up, so that a Qualified Professional, such as a licensed contractor, can design and install the repair, replacement, or modification of a Standard Types of Septic System. At this time, we are all hearing about boot legged septic system installations without permits and oversight. At this time, your current restrictions are too difficult and expensive for the homeowner. If you get rid of the 50% rule for repairs in section 4.8, that number of permitted repairs will go down. Not good Public Health practice.	
311	4.4 Table 4.4	Steve Brown	Tank Replacement should include owner/builder option	
135	4.4.A.4	Jeff Loe	Suggest excluding "land owner". At best make it consistent with Homeowner/builder in Table 4.4	
103	4.5	Greg Schram	Should just state a minimum of 75% dual fields are required. 100% shall be required too.	
312	4.5.D.3	Steve Brown	Eliminate dual field or pressure dose; no need to make more stringent than new system	

056	4.5.D.3	Elsa Frick	Why has this restriction been added? There is no such restriction for any low flow design flow in current standards. Why not just allow the calculation based on changing out the fixtures. There are very limited existing systems that would meet this criteria, so while the allowance to lower the flow calculation seems like a “give” it will almost never be able to be applied. Or generate costs and complications (installing a sump and pump to deliver to existing leachlines) that are not warranted. It might seem like equal flow distribution is better, but that has not been proven. Especially for systems that only have one leachline there is no benefit to pumping to it.
136	4.6	Jeff Loe	Recommend use of <b>servient tenement</b> and <b>dominant tenement</b> . Eliminate all other references to lots & parcels.
248	4.6.F.3.a	Mike Treinen	Allow variance for large parcels - pick a reasonable size. To design the grantor's future system and reserve in an area that might never even be used is more time and probably unnecessary expense.
313	4.6.H.2	Steve Brown	What does the ownership of a lot have to do with the definition of abutting? It appears this was added to chapter 7 as standards were developed for septic easements. Not sure why ownership matters.
104	4.6.H.4	Greg Schram	H4 – States Lots separated by a public road or highway shall not be considered abutting. There is no reason that a lot should not be allowed to cross a street or travel down a public road to get to an easement on another lot. It should just require an encroachment permit. It also states that it is ok to do this in a major subdivision. If a major subdivision can do it then individual parcels should be allowed as well.
057	4.7.F.1	Elsa Frick	It takes most projects 6 months to a year to get plan check approved. There are many instances where the process takes over a year, thereby rendering expiration during the process itself. Reconsider this to be more fair. This OWTS document, if approved will drive up the number of submittals required and staff already struggles to get projects out timely. To be fair, make the time period for the date of plan check approval. Everyone walks away a winner this way

011	4.8	Ted Walker	You have deleted the 50% replacement rule, down to zero. See comment above. This is going in the wrong direction. The State Water Resources Control Board is not aware of the local impact to this new regulation. Sometime, a septic system needs a modification here or there. So, at this time, I am going to suggest three elements in which a Septic System Trench Modification Can be Permitted without the need for a Site Evaluation, Soil Profile Hole or Ground Water Determination test. Case #1, standard existing trenches (that were previously permitted and inspected) where trenches are impacted by excessive root intrusion, siltation, and organic loading (formation of the Bio Mat layer in the trench). In such cases, the Qualified Consultant (licensed contractor may propose, permit, and install re-excavated leachlines, gravel beds, chambers, and related piping but not deeper than the current trenches. Note: this could be incorporated into Section 5.3 of the OWTS regs.
027	4.8.C.4	Rich Holmer (1/17/2022)	The 50% threshold for a repair versus a replacement dispersal system has been deleted entirely. In discussions with the North Coast Regional Water Quality Control Board, they have indicated that there may be some flexibility for minor additions to the dispersal system. Was an attempt made to negotiate this provision with the WQCB?
058	4.8.D	Elsa Frick	There should be a provision to allow for the removal of bio mat. Staff is already measuring every thing to significant figures not appropriate for the technology (1/8" in from ground surface for example where it is not possible to measure to that level of accuracy) there will be no end to the squabbles. We need to allow for the removal of biomatted soil in trench replcements. It is usually only and inch or 2 and not significant to the intent of the policy
283	4.8.D.1	Jessica Chavez	1. (...)The trench shall be repaired no deeper than required to remove the biomat. the existing trench. 2. (...)The trench shall be repaired no deeper than required to remove the biomat. the existing trench.
284	4.8.D.2	Jessica Chavez	1. (...)The trench shall be repaired no deeper than required to remove the biomat. the existing trench. 2. (...)The trench shall be repaired no deeper than required to remove the biomat. the existing trench.
249	4.8.D.3	Mike Treinen	If original plans are not available, as is not uncommon due to pre-code, lost, misfiled etc, add language allowing for design by a Qualified Professional.

059	4.8.E.9	Elsa Frick	Some provision should be made if an underprivileged owner needs to make repairs to an existing structure due to unsafe conditions but has a home served by a cesspool or other than non-conforming system (wooden tank) and has to upgrade the system in order to comply with this OWTS in order to make repairs to their structure
137	4.8.J	Jeff Loe	OWTS clearance should be required for all control panel replacements. The building inspector checks for code compliance only. Someone must verify that the panel is functioning properly. I recommend inspection to verify function be performed by qualified consultant, certified operator or Well & septic specialist.
138	4.8.K	Jeff Loe	OWTS clearance should be required for all solids handling pump applications being part of OWTS. Low rate septic tank effluent pumping should be considered. These pump systems with 3" plumbing at 20 GPM can surcharge septic tanks and treatment systems if not properly deployed. Override cycles and alarms are sometimes triggered by high flow rates. I recommend that sewage at 20 GPM not be connected to a septic tank that also serves as recirculation tank.
285	4.9.C	Jessica Chavez	Recommended Addition to 4.9(C) Inspections. Paragraph (...) may waive attendance or approve alternative form of inspection.  Reason: This would allow staff to approve photos or videos of minor system component installation, as deemed appropriate. Would be suitable for tank destructs, field cover, erosion control placement, etc.
286	4.9.C.2	Jessica Chavez	Spaces needed and recommended change, "previously approved proper location, and placed on contour. Drip tubing shall be installed on contour or within manufacturer's allowed tolerance."
314	4.9.C.4 5 & 6	Steve Brown	Reorder to 4) final inspection, 5) 189 inspection, 6) startup inspection
287	4.9.C.7	Jessica Chavez	Add tank destruct inspection. Recommended Addition: 7. Destruction of existing septic tank, if applicable
028	4.9.G	Rich Holmer (1/17/2022)	The provision of an as-built drawing for the OWTS is in line with past practice. Currently, some staff have been interpreting this to mean that any change in location of a dwelling or roadway must be incorporated into the as-built OWTS plan before final approval can be received on the OWTS construction permit. This results in the OWTS designer having to prepare an as-built plan for the entire parcel rather than for just the OWTS. This burden should not be imposed upon the OWTS designer and is an unnecessary expense to the property owner.

139	4.9.J	Jeff Loe	The permittee is often totally disconnected from the installation process and is not best person to notify inspections. Suggest rewording to <b>installer or permittee</b> .	
140	4.9.J.2	Jeff Loe	This should be referenced to 4.4 but there is ambiguity where contractor and land owner are listed in 4.4. I recommend that letters from qualified consultants be required when the following are involved: interceptor drains, fills, shallow sloping, pumped, non-standard alternative & experimental, commercial & industrial.	
250	4.10.B	Mike Treinen	Original Consultants die, close their business or move out of the area and be unreachable. Provide language to allow for such contingencies.	
251	4.10.C	Mike Treinen	Original Consultants die, close their business or move out of the area and be unreachable. Provide language to allow for such contingencies.	
315	4.11.D	Steve Brown	Replace “open groundwater test periods” with “an open wet weather test season”	
029	4.13	Rich Holmer (1/17/2022)	This appears to be an attempt to allow some flexibility for replacement systems. It is fairly limited in scope, however, and relies on the installation of non-standard systems with pretreatment for the “exceptions”. I feel that there should be flexibility allowed in the design if the site and soil conditions are appropriate for not providing pretreatment or a non-standard system.	
304	4.13	Tammy Martin	There should be more flexibility allowed in the design if soil conditions warrant not providing pre-treatment or a non-standard system.	
044	4.13.A.1	Tai Nguyen	Section 4.13, A, 1. Change 15 percent fine to 15 percent silt and clay.	Edit 4.13.A.1 accordingly.
060	4.13.A.2	Elsa Frick	This should say an “average” percolation rate of less than 1 mpi. One or 2 fast holes does not mean too fast a perc. It is not uncommon to end up near a gopher channel that break free during a perc test. Perc tests are not perfect, but a simple method to demonstrate permeability. Significant figures need to be applied in the analysis of permeability . There is much too much effort being made to carry out analyses to minute detail not supported by the technology of sewage disposal. (structures need to be built to the nearest 1” in many cases, septic systems to the nearest 10’ in most cases)Drilling down on one or 2 fast holes in a septic filed is missing the point of average. It is a myth (almost magical thinking) to assume all the waste will gravitate to the fast hole and stream immediately to the groundwater and contaminate ift for all eternity.This is overkill and should only apply if the “ <b>average</b> percolation rate is less than 1 mpi”	



288	4.13.A.2	Jessica Chavez	<p>Recommended:                  (A)2. For dispersal area(s) having soils with an average percolation rate less than one minute per inch (...).</p>	
061	4.13.A.3	Elsa Frick	<p>Why is this limited to gravels? What about rock content? Why is the perc rate limited to 1-5 mpi only? A soil with over 50% rock and slower percolation rate means the water is traveling through soil that is likely providing treatment. This whole section is going to result in more percolation test requirements for replacing septic systems. Driving up costs, delays and adding workload to already stressed staff. I certainly appreciate the attempt to address every possible instance where an existing property needs to replace a septic system in failure but cannot meet the details of this OWTS manual with regard to siting septic systems for new construction in this County but the level of</p> <p>RESTRICTIONS AND DETAILED EXPENSIVE ANALYSIS AND REQUIREMENTS FOR THE CONSTRUCTION OF THE SEPTIC SYSTEM WILL DRIVE PROPERTY OWNERS TO NOT GET PERMITS FOR REPAIRS! WE'VE BEEN HERE BEFORE.</p>	
252	4.13.A.3	Mike Treinen	<p>Just noting that allowing soils w/ &gt; 50% gravels is a large change from current 50% limitation</p>	
289	4.13.A.3	Jessica Chavez	<p>Recommended the following. (B) 3. For replacement dispersal area(s) having soils with greater than 50 percent gravels, and either an average percolation rate between 1 mpi and 5 mpi or no percolation test on file, the dispersal area(s) may be approved provided the following criteria are met: a. The dispersal area(s) has a percolation rate of one to five minutes per inch; and a. 1) A non-standard system type with the use of a pretreatment unit; or b. 2a) A standard system type with the use of a pretreatment unit and, 2b) A standard system type with the use of ultraviolet disinfection.</p> <p>Reason: More accurately reflects treatment concerns when high gravel content is observed, as it relates to percolation rates being too fast. Allows separation from cases where gravelly soils with suitable percolation rates are observed (see comment 4.13D)</p>	

316	4.13.A.3.a	Steve Brown	<p>Replace “gravels” with Coarse fragment” and “rate of one to five minutes per inch” with “no faster than one minute per inch”.</p> <p>Soils with more that 50% coarse fragment are not always fast perc</p>	
290	4.13.A.4	Jessica Chavez	<p>4. For replacement dispersal areas that have less than 24 inches of suitable soil depth and/or less than 24 inches of separation to perched groundwater, the dispersal area may be approved provided the following criteria are met:</p> <ul style="list-style-type: none"> <li>a. A mound septic system with up to six inches of additional sand; or</li> <li>b. A mound with pretreatment; or</li> <li>c. An at-grade type septic with pretreatment and ultraviolet disinfection.</li> </ul>	
291	4.13.A.5	Jessica Chavez	<p>5. For replacement dispersal area(s) that cannot meet property line, structure, or driveway setbacks, the dispersal area(s) may be approved provided the following criteria are meet:</p> <ul style="list-style-type: none"> <li>a. Upslope and lateral setbacks for dispersal areas using fill are reduced to no less than five feet; and</li> <li>b. The dispersal area remains on the subject parcel; and</li> <li>c. If a non-standard dispersal area utilizes the reduced setback(s) then a monitoring well shall be placed at the property line(s) with the reduced setback applied.</li> </ul>	
317	4.13.B.2	Steve Brown	<p>The code includes conforming systems for two feet of soil depth. If this is an exception it should require a minimum of one foot of adequate soil depth and nonstandard with disinfection or standard with pretreatment and disinfection.</p>	
105	4.13.B.2.b	Greg Schram	<p>B2b – Does this mean that if we now use a pretreatment unit to reduce the soil requirement for standard systems that now UV disinfection is required. This contradicts the pretreatment section</p>	
062	4.13.C	Elsa Frick	<p>Many soils have an impermeable lens. Impermeable needs to be defined. Where, relative to the disposal point in the soil horizons is the “impermeable lens”? This section needs more context as to what it is addressing. Review UPC regarding soils to be used in sewage disposal</p>	

292	4.13.C	Jessica Chavez	<p>Recommend update to reflect Plumbing Code, potential mistype. No need to say non-standard as the pretreatment unit will automatically make any system non-standard. Non-standard system types (PD, Drip) cannot be installed under a permeable soil lens per design standards.</p> <p>C. Exception for Impermeable Soil Lens</p> <ol style="list-style-type: none"> <li>1. For dispersal area(s) having an impermeable soil lens, the dispersal area(s) may be approved provided the following criteria are met:             <ol style="list-style-type: none"> <li>a. There is permeable soil below the impermeable soil lens; and                 <ol style="list-style-type: none"> <li>1. The dispersal area is installed in the permeable soil; and</li> <li>2. Use of a non-standard system type; and</li> <li>2. 3. Use of an approved pretreatment unit.</li> </ol> </li> </ol> </li> </ol>	
293	4.13.D	Jessica Chavez	<p>Recommend adding an exception for when a suitable percolation rate is obtained in soils with a high gravel content.</p> <p>Reason: The concern with greater than 50% rock content is that percolation rates will be too fast to properly treat effluent and the effluent will not travel through soil (filter media) but rather through cracks and void space. Gravelly soils are often acceptable, as effluent will need to travel through the soil between the gravels and no large cracks will be encountered. Direct percolation testing can be performed to determine the soil's suitability (percolation rate). Referenced below as addition 4.13(D) for ease of noting it is an addition to section 4.13.</p> <p>4.13 (D) Exception for greater than 50% gravel content.</p> <p>For dispersal area(s) having soils with greater than 50 percent gravels, dispersal areas may be approved provided the following criteria are met:</p> <ol style="list-style-type: none"> <li>a. A percolation test is performed; and</li> <li>b. An average percolation rate of 1 mpi or greater is observed</li> </ol>	
294	4.13.E	Jessica Chavez	<p>4.13(E) Exception for Dispersal Area Over Inground Septic System</p> <p>For new dispersal area(s) over an existing inground septic system, dispersal areas may be approved provided the following criteria are met:</p> <ol style="list-style-type: none"> <li>1. Separation between the bottom of the proposed dispersal area and top of the existing inground septic system's gravel is equal to or greater than the required minimum depth of soil below the proposed dispersal area type; or</li> <li>2. A mound dispersal area with up to six additional inches of sand; or</li> <li>3. A mound dispersal area with an approved pretreatment unit; or</li> <li>4. An at-grade dispersal system with an approved pretreatment unit and ultraviolet disinfection</li> </ol>	

030	6.4.C.2	Rich Holmer (1/17/2022)	This is where a bedroom is eliminated from the primary unit to allow a bedroom in an ADU. As before, a properly functioning non-conforming system is allowed but there is a new requirement now added for a code conforming reserve expansion area. This will result in considerable expense and time delays and will affect construction of ADUs.
063	6.4.C.2.b	Elsa Frick	This was not in the previous OWTS There is no justification for this requirement. It is not driven by the State OWTS. It is not in keeping with the BOS and State demands for finding more housing quickly It seems to address a different agenda not in keeping with State and local demands for housing.It will drive up costs \$20,000 and delays potentially up to years if groundwater testing is required and the sheer number of properties it addresses will add further workload and delay in processing. All for something that may never be built
253	6.4.C.2	Mike Treinen	Adding requirement for code compliant reserve for ADU's is a step backward for homeowners and further discourages legal additional housing. Requiring evaluation or requirement for guest house reserve - same comment as for ADU's.
295	6.4.C.2.b	Jessica Chavez	b. If an increase in encumbrance is proposed, a code compliant reserve replacement area is required for the primary dwelling unit and ADU, pursuant to Sections 4.11.A and 6.6.
305	6.4.C.2	Tammy Martin	There should be the ability to have a non-conforming reserve area if the primary system is non-conforming.
031	6.4.D.2.B	Rich Holmer (1/17/2022)	An "evaluation" of the reserve area or a code conforming reserve area is proposed to be required, see comments on Section 6.6.
064	6.4.D.2.b.	Elsa Frick	This was not in the previous OWTS There is no justification for this requirement. It is not driven by the State OWTS. It is not in keeping with the BOS and State demands for finding more housing quickly It seems to address a different agenda not in keeping with State and local demands for housing.It will drive up costs \$20,000 and delays potentially up to years if groundwater testing is required and the sheer number of properties it addresses will add further workload and delay in processing. All for something that may never be built!
254	6.4.D.2	Mike Treinen	Adding requirement for code compliant reserve for ADU's is a step backward for homeowners and further discourages legal additional housing. Requiring evaluation or requirement for guest house reserve - same comment as for ADU's.

296	6.4.D.2.b	Jessica Chavez	b. If an increase in encumbrance is proposed, a code compliant reserve replacement area is required for the primary dwelling unit and ADU, pursuant to Sections 4.11.A and 6.6.	
255	6.4.E	Mike Treinen	It seems excessive to demand reserve evaluation or requirement in every case for barns, pools etc., especially on larger parcels, when this is already more appropriately addressed by your "encumbrance" language.	
045	6.4.E.3	Tai Nguyen	Section 6.4, E, 3: Non-bedroom accessory structures with plumbing shall provide documentation that the proposed structure does not represent an increase in wastewater flow to the existing septic system. I can't think of a document to provide. What documents are you referring to?	
033	6.5.B.2	Rich Holmer	This now requires reserve area in accordance with Section 6.6.	
256	6.5.B.2	Mike Treinen	Adding a deck or possibly even replacing one would come under this section. Same comments as above in 6.4E	
297	6.5.B.2	Jessica Chavez	2. For proposed additions which increase encumbrance the building footprint, a reserve replacement area shall be evaluated or required for the primary dwelling unit, pursuant to Sections 4.11.A and 6.6.	
319	6.5.B.2	Steve Brown	Change to "a reserve replacement area shall be shown on the building application site plan. The reserve area shown will be based upon reserve area documented in permit records or by designation of reserve equivalent to existing system sizing."  The entirety of Section 6.6 could be eliminated.	
032	6.5.E	Rich Holmer (1/17/2022)	This replaces existing Section 6.5.D. and now requires reserve area in accordance with Section 6.6.	

034	6.6	Rich Holmer (1/17/2022)	<p>This is the “50% lot encumbrance rule” which the Board of Supervisors removed in 2019. It requires that the “encumbrance” on a lot (meaning the area on the parcel unavailable for a septic system installation) must be calculated and, if it exceeds 50% of the lot size, a code conforming reserve area must be demonstrated. An existing, designated reserve area is only acceptable if the encumbrance is less than 50%. Note that this encumbrance requirement applies to Sections 6.4.C.2., 6.4.D.2.B., 6.5E and 6.5.B.2 as outlined above. There is not even an exception if the proposed building will be located in an already encumbered area such as a well or stream setback.</p> <p><u>Discussion:</u></p> <p>The County Code requires that a parcel not be over built with respect to the amount of area available for the septic system and future repair of the system. This requirement can be satisfied by a determination that the work proposed under a building permit does not impose additional sewage loading onto the septic system and does not encroach onto the existing system or approved reserve expansion area. Reserve expansion areas have been required to be properly tested, designed and designated on parcels by the County since at least 1980. All of these approved areas should be recognized and accepted in the building permit review process if the reserve area is unaffected and there is not an increase in wastewater flow. If there is not an approved reserve area, then the size of the reserve area should be based upon the size of the existing, properly functioning septic system and the setbacks to water wells, streams, etc.</p> <p>The California Plumbing Code Section 101.6 states that “Private sewage disposal systems shall be so designed that additional seepage pits or subsurface drain fields, equivalent to not less than 100 percent of the required original system, shall be permitted to be installed where the original system cannot absorb all the sewage.”</p>	
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065	6.6	Elsa Frick	Basing the requirement for demonstrating reserve area on a 50% encumbrance is arbitrarily restrictive and already causing undue headache time consuming and detailed expensive analyses for too many projects. Staff are inundated with the details of this already, resulting in bottlenecks and backlogs where they are already stresses and behind. There is nothing in the State OWTS requiring it. The UPC only refers to encumbrance of properties on septic . I have reviewed Rich Holmer’s comments regarding this section and concur with his comments whole heartedly. I will, therefore not repeat them here.	
106	6.6.A.1	Greg Schram	It is still a little unclear as to what is required if the lot is over 50% encumbered, but the proposed improvement is within an encumbered area like a well setback. I understand that it will not get counted twice, but the lot is still over 50% encumbered, so does this trigger the need for code compliant reserve. It really should not, because the improvement is going where septic cannot.	
066	6.7	Elsa Frick	With all the changes proposed in the other sections regarding percolation test hole requirements, groundwater testing requirements and and profile holes, only systems approved according to these strict standards will be code compliant. Already staff is requiring additional percolation tests, groundwater and profile test for properly functioning and properly sited septic system. You might as well delete this section as not prior system can meet these current standards unless it was designed and approved since 2020!	
257	6.9.B.1	Mike Treinen	Findings Report Cover Letter. With staff backlogs already excessive, why require additional documents and increase time and cost when the requested items could be included in the body of the report, within the 1st paragraph as an example. Some of the requested info is already in most of our reports.	
015	Table 7.2d	Ted Walker	This table is not needed, and it is technically flawed. A 25-foot setback for fill land and shallow sloping systems is wrong. And the soil cap measurement for At-Grade Systems (with drip) is flawed.	
023	7.2	Rich Holmer (12/30/2021)	The "altered terrain" section of 7.2 states that systems cannot be located in areas of flooding. How does this relate to the 10 year and 100 year flood plains? Are these considered "areas of flooding"? If so, what happens to existing residences in these areas?	
022	7.2 Table 7.2c	Rich Holmer (12/30/2021)	I could not find in table 7.2c the point on a stream or water way that the setback is measured from. Is it top of bank? If so, a definition of this term would be good.	Added to Table 7.2C, N5.

<p>036</p>	<p>7.2 Table 7.2c</p>	<p>Rich Holmer (1/17/2022)</p>	<p>This table has been completely revised from the existing County OWTS policy. Setbacks for streams are now listed for “Blue line streams, non mapped streams and natural swales”. A blue line stream now requires a 100 foot setback from a stream shown on USGS maps as a solid blue line or a dot and dash blue line. The dot and dash blue line delineation on a USGS map indicates seasonal flow. This alteration to the setback results in a substantial increase in setback distances to smaller streams. Previously, these streams were classified as “ephemeral” and had smaller setbacks than for “perennial” streams. The justification for this increase in the setback to seasonal streams is not clear and does not appear to be justified.</p> <p>There is no definition of where stream setbacks are measured from. It should state top of bank or normal high water flow line.</p> <p>There is a lot of ambiguity currently regarding where the setback from the Russian River is measured from. The river generally has a series of plateaus along its banks. Some staff have interpreted the edge of the highest plateau as the point where the setback is to be measured from. The setback for the river should be specified as from the top of the closest bank to the river.</p> <p>There is a new requirement for setbacks from Storm Water and Groundwater Infrastructure. Although setbacks are probably a good idea, the proposed setbacks seem unnecessarily restrictive especially with regards to the setback for the discharge from an interceptor drain. These setbacks will impact the area available for an OWTS and will create the need for variances. They should be pulled out of the standards and subjected to a peer review process.</p>	
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071	7.2 Table 7.2a	Elsa Frick	<p>Strike this table! It is tedious and represents way too many significant figures for the technology it addresses! It has been the source of too many arguments and restrictions. Almost no other jurisdiction (only ones that copied us) use this degree of “tolerances” to address sizing that is not in need of this degree of significant figures. See table 7.2.b and other established sizing standard. It is ok to set up ranges of percolation testing and then some acceptable standard deviations to be considered at the designer’s discretions when the average percolation rate is close to one value or another. Build in some much needed flexibility.</p> <p>Flexibility is not the same a discretionary, per se. But it does allow for some discretion on the part of the designer, to be accepted by the regulator at the professional designer’s discretion. Easy</p>
107	7.2 Table 7.2d	Greg Schram	<p>Any reference of “Edge of Trench” should be changed to Centerline of Trench. The contractor has an option of different widths of buckets, so this is a moving target. Centerline of trench is always the same. Also it is easier for designers and plan checkers to go from centerline and centerline has been common practice.</p> <p>At Grade Drip Dispersal – Requires setback to fill. I would keep this the same as subsurface drip systems. It will get confusing otherwise.</p>
143	7.2 Table 7.2c	Jeff Loe	Swimming pools must have other than down gradient setbacks. The table contains nothing additional for pools. Include pools with other structures. Pools often have sub drains than can pick up effluent!
144	7.2 Table 7.2c	Jeff Loe	Intermittent streams are now being treated as perennial. This complicates the past. Unwarranted change.
210	7.2 Table	Jeff Loe	Bottomless Sand Filter - Substitute vessel with “enclosure”
258	7.2 Table 7.2d	Mike Treinen	"Note 1" - point of measurement. Vague, subject to interpretation. Specify distance intended.
306	7.2 Table 7.2.C	Tammy Martin	Ephemeral streams should still have a lesser setback than perennial. Setbacks should be from top of bank. Drainage ways greater than or less than 18” in depth should have even smaller setbacks if they are lined. Setbacks to watertight storm drains of any size should be only 10’ for septic tanks and all dispersal areas.

322	7.2 Table 7.2c	Steve Brown	<p>20a- We should add Bluff setback of 50'</p> <p>40 and 41 should reference 3 foot depth of soil</p> <p>Add a line for lateral setback to cuts at 50% of downslope setback.</p>	
323	7.2 Table 7.2d	Steve Brown	<p>All system types should have setbacks measured from the absorption area (basal area for mounds and at grades – ok)</p> <p>I do not see a reason for SIG or At Grade drip to be different.</p> <p>N1 – Fill systems have adopted all of the depth of soil requirements of standard systems. Fill systems should be removed from downslope requirements.</p> <p>N2 – drip absorption area should be used rather than edge of fill.</p>	
146	7.2 Table	Jeff Loe	Non-Mapped Stream is not included in definition of Stream	
142	7.2 Table 7.2c Note 7	Jeff Loe	High waterline is complicated matter. I suggest setback is to contour of emergency spillway elevation.	
145	7.2 Table 7.2c Notes 3	Jeff Loe	Notes 3 & 4 are elsewhere in code. They do not belong in Table 7.2c. They add nothing but confusion in the setback table.	
147	7.2 Table 7.2c Line 26	Jeff Loe	It should not matter the size of storm drain pipe. What matters is the backfill surrounding the pipe. Any sand bedded utility trenches deserve the same setbacks. Add utilities with sand bedding to setback tables. Add utilities with native soil bedding to setback table.	
149	Table 7.2c Line 39	Jeff Loe	Recommend 25' setback to non perforated stormdrain pipes down gradient from standard and non-standard dispersal areas.	
148	7.2 Table 7.2c Line 38	Jeff Loe	Recommend 25' setback to downslope interceptor drain discharge to standard and non-standard dispersal areas. Interceptor drains shall discharge	

298	7.2.B	Jessica Chavez	<p>Recommend expansion of description 7.2(B) and addition of 7.2(B)3 and 7.2(B)4. Reason: fill is placed for some dispersal areas and some excavation must be performed for installation. Reserve is adjacent to fill.</p> <p>B. Altered Terrain</p> <p>1. OWTS shall not be placed in areas that have been altered, including:</p> <p>a. Filled areas</p> <p>1. Soil cover placed for dispersals areas, under an approved septic permit, shall not be considered altered terrain.</p> <p>b. Excavated areas</p> <p>1. excavations for the purposes of soil exploration shall not be considered altered terrain.</p> <p>2. Backfill of piping and dispersal area trenches shall not be considered alter terrain.</p> <p>3. ripped, plowed, altered, modified, or in areas of flooding, drainage problems, or geologic instability.</p> <p>c. Ripped or plowed</p> <p>d. Other modifications, excluding;</p> <p>1. Landscaping</p> <p>a. Walkways using crushed rock, gravel, flag stone, or other non-compacted surface material; or</p> <p>b. vegetative landscaping; or</p> <p>c. other landscaping that doesn't affect the areas septic suitability.</p> <p>e. Areas subject to flooding or drainage problems</p> <p>f. Areas of geological instability</p> <p>2. Such areas that have been excavated, ripped, plowed, altered, and/or modified may shall be acceptable if the soil is stable and soil evaluation indicates characteristics acceptable for installation of an OWTS such as approved structure, texture, consistency, pore space, percolation rate, soil depth, and separation to groundwater pursuant to this OWTS Manual.</p>	
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320	7.2.B	Steve Brown	<p>This section is contradictory. 1 says “OWTS shall not be placed...” and 2 says it “may be acceptable...”</p> <p>You could keep 2 and add something like “altered terrain should be carefully considered when evaluating site conditions. Additional testing of an altered soil horizon may be warranted”</p>
035	7.2.4.B	Rich Holmer (1/17/2022)	<p>This includes a prohibition on installing OWTS in areas subject to flooding. Staff has recently begun to interpret this as prohibiting systems on flood plains. Clarification is needed as to 10 year and 100 year flood plains. Replacement systems will be needed for homes in these areas and should be expressly allowed. New systems for new construction should meet the required stream setback rather than a separation from a 10 year or 100 year flood plain.</p>
141	7.2.B.1	Jeff Loe	<p>OWTS sometimes must be placed in areas that flood periodically or have drainage problems. In these cases the systems must be designed to address conditions. Basin plan indicates setbacks are from top of bank ephemeral stream or 10 year frequency flood line. 50 year frequency flood can be addressed by design.</p>
067	7.2.B.2	Elsa Frick	<p>Include the potential for placement of fill, other counties in our water quality control board jurisdictions allow the use of fill for septic systems. Lets make some real changes</p>
012	7.2 C and 7.2d	Ted Walker	<p>Why are you removing this chart? It appears that it is being replaced almost entirely by a new chart, 7.2. Can you clarify reasoning for this? Can you articulate why you are making changes to setbacks? There are literally hundreds of systems that have been permitted, installed, and in operation since the early 1970’s that will not meet the new setbacks outlined in Table 7.2d, such as Shallow Sloping, Fill Land Systems, At-Grade Systems and even Drip Dispersal Systems. If these new setbacks are enacted, they will constitute a “taking of property rights” and make the current existing systems technically illegal to this new proposed code modification. The point of distance for measurement nationally has always been the edge of trench (outside edge of the point of discharge). Not an additional 5 to 15 to 25 feet downgradient of the infiltrative area. These proposed changes are simply wrong and technically unjustified. N1: Fill Land Systems (new version is absolutely wrong. The fill placement around and downgradient of the system in not considered part of the treatment zone!!!!</p>
151	7.2.E	Jeff Loe	<p>For waterway setback reductions – pretreatment should include NSF/ANSI 40 and NSF/ANSI 245</p>

150	7.2.E, F, G, H,	Jeff Loe	Do these setback reductions require a variance?
299	7.2.E.2	Jessica Chavez	Can replacement OWTS have an increase in flow?
321	7.2.E.4	Steve Brown	“Sites that cannot meet these reduced setbacks will be required to setback to the greatest distance possible. A Variance application will be required to document setback deficiencies.”
068	7.2.F.1.c	Elsa Frick	There is no such septic tank available, certainly not in Norther California
300	7.2.F.1.d	Jessica Chavez	Tank leakage water tightness test
152	7.2.G	Jeff Loe	Is Class 2 well with 50' seal allowed for reduced setback?
301	7.2.H.1	Jessica Chavez	<p>Recommendation: Remove slope limitation and consultant property line certification by consultant. If owner a statement is acceptable, please provide document for owner to sign and reference document.</p> <p>Reason:</p> <p>(1a) this seems very arbitrary, please provide reasoning and justification for 12.5%. Slope limitation of system type should be suitable. Pretreatment more relative mitigation.</p> <p>(1b) Consultants are not surveyors and therefore cannot sign a statement verifying exact property line locations.</p> <p>1. The downslope setback of a non-standard dispersal area may be reduced to 10 feet provided:</p> <p>a. The slope is no greater than 12 ½ percent; Uses approved pretreatment</p> <p>b. The consultant and property owner state in writing and on the approved OWTS plan that the location of the dispersal area is on the subject property; and,</p> <p>c. The downslope monitoring well is placed at the property line</p>
070	7.2.H.1.b	Elsa Frick	This seems to be an attempt to shed liability. The property owner and Consultant are not licensed to make such statements Only a licensed Surveyor is and by way of a Boundary Survey. Strike this
069	7.2.H.1.c	Elsa Frick	The 12 1/2 % slope seems arbitrary. Where does this come from?

302	7.2.J and 7.2.K	Jessica Chavez	<p>Recommendation: Add section J, related to upslope drainage 7.2</p> <p>J. Reduced Setback for Dispersal Area(s) to Drainage Ways and Water body</p> <ol style="list-style-type: none"> <li>1. .The location of OWTS components shall conform to the distances contained in the Table 7-2c multiplied by 0.5 provided:             <ol style="list-style-type: none"> <li>a. The drainage way is upslope of the proposed OWTS; and</li> <li>b. the setback is reduced to no less than</li> <li>c. The stream/waterway/water body is upslope of the proposed dispersal area</li> </ol> </li> <li>K. Reduced Setback to Altered Terrain             <ol style="list-style-type: none"> <li>1. The septic system setback to fill shall be reduced to zero provided                 <ol style="list-style-type: none"> <li>a. The fill is upslope of the dispersal area; and</li> <li>b. The fill is placed at a higher elevation than the proposed dispersal area; and</li> <li>b. a maximum 2:1 slope is utilized; or</li> </ol> </li> <li>2. The location of the OWTS components shall conform to the distances contained in the Table 7-2c multiplied by 0.5 provided:                 <ol style="list-style-type: none"> <li>a. the fill is related to a back filled excavation deeper than the proposed piping or emitters.</li> <li>b. The excavation is upslope of the septic system; and</li> <li>c. The setback is not reduced to less than 10 feet</li> </ol> </li> <li>3. The setback to a cut bank shall be reduced to ten feet provided:                 <ol style="list-style-type: none"> <li>a. The cut bank is upslope of the proposed dispersal area; and,</li> <li>b. The bottom of the cut bank is at a higher elevation than the dispersal area(s).</li> </ol> </li> </ol> </li> </ol>	Jessica Chavez
324	7.3.B	Steve Brown	<p>Notification “the day before” With Selectron system the notification process continues up to midnight.</p> <p>Not sure what you mean by “Exploratory work”, please remove or specify. We explore properties in advance of making application for pre perc. We do not apply or notify for this type of work.</p>	

072	7.4	Elsa Frick	While there is great discussion about what is involved in describing the soils there is no provision for many of the required descriptions such as consistence, pores, dampness and roots to be used in decisions about sizing and suitability. These qualities are used in the critical path analyses of evaluating soils for suitability for sewage disposal. It can be taught and probably drilled down into details for objectively evaluating soils for suitability. The skills are lacking in current staff and need to be addressed. Sizing criteria based on soil texture and structure alone is flawed and results in some sites being denied and some with systems smaller than might be prudent. The use of all the characteristics of the soils for establishing suitability and for sizing needs to be brought back to the soils evaluation process.
153	7.4 Figure 7.4	Jeff Loe	This should be a symmetric equilateral triangle.
042	7.4.D.1	Tai Nguyen	Section 7.4, D, 1: A minimum of two soil profile hole are required. Additional soil profile hole may be required if there is dissimilar or inconsistent soil condition, enough to alter the ultimate design, are observed in the profile holes. Most of the time the soil profile holes are dissimilar. It is not common to get similar soil condition. I recommend removing this requirement.
043	7.4.D.3	Tai Nguyen	Section 7.4, D, 3: downslope permeability needs to be demonstrated. This is true with shallow permeable soil for a mound system, at-grade system and drip system but not for leach trench leach lines.
325	7.4.E.2	Steve Brown	Soils with less than 15 percent silt and clay...add "and percolation rate faster than 5 minutes per inch"..  Some soils with few fines can per are rates that will slow the movement through the soil and provide good aerobic treatment.
013	7.5	Ted Walker	Suggest the section be rewritten to as follows: Groundwater table determinations are required for lands having slopes of 0 to 5 percent in a (Landscape Formation that depicts a Basin Area). Groundwater determinations (may only be considered) on lands greater than 5 percent slope may be required if high seasonal groundwater is suspected (based upon historical, neighboring, or geological information).
037	7.5	Rich Holmer (1/17/2022)	This whole process should be reevaluated to find a less cumbersome method. Future study by a LUAP subcommittee should be specified.

326	7.5.D.3	Steve Brown	Hand dug holes are often left open or have a pipe set loosely I the hole to prevent cave-in or gopher fills. Remove the part about filling the annular space.
074	7.5.E.2	Elsa Frick	Add to the nearest inch to the end of the sentence. Ground level cannot be measured to any more significant figure than that.
073	7.5.F.2	Elsa Frick	This his is wrong to punish or assume a failed groundwater test. Strike the canceled portion of this. You do not know why a test was canceled and it is improper to assume failure. Use the mottling, just as other jurisdictions do to allow the use of mottling. Some groundwater test periods are are wetter than others and some drier. The whole section about direct observations of groundwater conditions needs a make over. There is too much arbitrary minutiae in it. It should not be this hard. It is punishing too many property owners and is harshly restrictive unnecessarily.
326	7.5.F.4	Steve Brown	Soil mottling shall be observed....." during the pre perc site meeting"  This section reads as though a separate pre perc is required to evaluate mottling.
016	7.6 Table 7.6	Ted Walker	Why?
329	7.6 Table 7.6a	Steve Brown	A column for Soil Zone should be added (1-4)  Wet weather is zone 4 or 4 with PI greater than or equal  Dry weather Zone 3 or 4 with PI less than  A dry weather Test row should be added for Zone 1 and 2 soil
328	7.6.D	Steve Brown	This can be shortened to "...concurrence on the soil profile is not reached a percolation test will be required."



082	7.6.E	Elsa Frick	This section has the potential to render existing septic systems non conforming as it represents a departure from the past requirements and practice of performing 6 percolation tests to justify an area. Identify the reason for the additional testing requirements over past practice. What went wrong? Scientifically address the reason for the change. These types of “tightening of screws that aren’t broken” results in a broken system. Staff is already asking for additional percolation test to prove existing systems are code conforming. This needs a justification based on sound examples of failure of the past practice to address a concern. It is really just another example of “significant figures” being applied to projects. 6 holes has always been sufficient. We do not need to drill down on these details just to satisfy some inspectors quest for perfection. It was not broken and it does not need fixing. It is not required in the State OWTS. then number of holes should not be determined by the number of expansion areas required. The test hoes identify an area. It used to be profile holes got a 75’ radius and perc holes 25’. That was not broken but now tightened. Sometimes an entire primary and 200% expansion area can fit in the influence of only 3 holes. Its OK when that happens!	
075	7.7.A.1	Elsa Frick	Smaller holes should be allowed. There is no significant difference in result. Older engineers may feel differently, but I have run holes of different diameters in the same proximity and not gotten SIGNIFICANTLY” different results. Larger holes use up more resources, gravel and water and are not necessary. TO the significant figures analysis we need to bring back the hole size will not matter. Table 7.2.a once revised will take this issue away.	
076	7.7.A.5	Elsa Frick	It should read “after a percolation test hole (not pit)	
154	7.8 Figure 7.8a	Jeff Loe	15% slope is irrelevant to detail / depth varies / 12” gravel for testing does not include 1” of in the bottom of the hole. / remove errant letters lay at right side bottom.	
078	7.9	Elsa Frick	What does individual stabalized or individual average percolation rate mean?	
157	7.9 Table 7.9a	Jeff Loe	We should be able to demonstrate that rates <1 MPI are anomalous. We have long approached this via discussion with REHS based on soil texture and structure or via supplemental testing. Include method for provide acceptable use of the area <1 MPI.	
158	7.9 Table 7.9	Jeff Loe	Most perc tests contain individual holes <5 MPI. This is good soil. Hydrometer testing should be required only if there is a question of whether there is >15% silt and clay.	

077	7.9.A	Elsa Frick	Should read 6 hour test that have not been refilled during the test	
330	7.9.A	Steve Brown	The rate should be based upon the smallest drop in an hour	
331	7.9.B	Steve Brown	The rate should be based upon the smallest drop in ten min	
079	7.9.E	Elsa Frick	Strike this. It has made a ridiculous assumption and not consistent with the rule of averages and requires an expensive and complicated technology where there is no proof that the soils will not filter the waste adequately . This represents a huge departure from the past practice and will result in way to many properly functioning and filtering system to become non conforming just because one perc test ran fast.  Again another instance ot significant figure analyses being applied too broadly resulting in too much change for no scientific evidence to justify	
333	7.9.E	Steve Brown	One test hole less than 1 mpi or greater than 120 should be ok to average into a system percolation rate.	
332	7.9.E.1	Steve Brown	I do not understand “individual stabilized” and “individual average” test rates.	
155	7.9.G	Jeff Loe	If rates of 60-120 MPI are acceptable for standard systems include that range in 7.9 G.	
156	7.9.H	Jeff Loe	Rates for non standard may include individual stabilized rates 1-120 MPI.  If rates of 60-120 MPI are acceptable for standard systems include that range in 7.9 H.	
080	7.10	Elsa Frick	Strike 10-day Many test periods can be longer and some shorter these days. It is sufficient to say groundwater test period	
108	7.12	Greg Schram	This is just a clarification question. Not a comment. Is a cumulative impact study required if a system is discharging 1400 gpd and another system 55’ away discharges 200 gpd (total of 1600 gpd), but not within 50’, within 100’ though. I’m thinking it is not based upon Scenario D.	

014	7.12	Ted Walker	<p>Section on Cumulative Impact Studies: A few basics here. I have been a lot of my career at Sonoma County, PRMD at the California Environmental Health Association regarding issues of Cumulative impacts from OWTS. Working with regional board staff Bob Tancreto and Teresa Wistrom from the North Coast Regional Board: the basis of Flow from an OWTS is determined when the Average Daily Flow would exceed 1,500 gallon per day. Not the peak or potential flow.</p> <p>In the role of Technical Specialist for the California Environmental Health Association, I have organized training in the County of Sonoma and the State of California with notable experts such as: Professor Finnemore of Santa Clara University, Dr. Patricia Miller, Virginia Department of Public Health, John Ayers, Ayers and Associates of Madison Wisconsin, Professors James Converse and Jim Tyler of the University of Wisconsin, and Mr. Norm Hantzsche of Questa Engineering present technical educational presentations of the subject of Cumulative Impacts from Onsite Systems.</p> <p>There are many areas of cover here. But the first comment, is this is very difficult to place in a Codified Document. Elements to review are basically large scale Onsite Systems (using average daily flow, not peak, the landscape formation of the area being utilized (is it a basin land form, a sloping site landform, percent of slope, limiting conditions gradient of the proposed system, soil features of the site, the strength of the wastewater proposed to be discharged, what is the nitrogen loading being discharged into the soils, is the organic loading being pretreated or not for nutrient reduction. And then, the separation and distances being suggested for multiple clustered systems. Another factor is the delivery of wastewater being proposed: is it gravity flow, is it pressure flow, or is it drip dispersal.</p>	
081	7.12	Elsa Frick	<p>The State OWTS does not require this. The analyses methods are flawed. This is an undue burden not substantiated by evidence. Strike this requirement until there is ample evidence and methodologies available to address it.</p>	
017	7.13 Table 7-	Ted Walker	<p>Too prescriptive. Not needed,</p>	
083	7.14	Elsa Frick	<p>This section is not needed. Staff can be trained to think a project through consistently. It should be a guideline only and not part of an OWTS regulation. There are too many perturbations of this and it will result in lots and lots of additional tests and requirements. I thought we were trying to simplify things.</p>	

159	7.14	Jeff Loe	<p>This entire section is undeveloped and incoherent.</p> <p>Site Evaluation Work is not vestable and has nothing to do with vesting or previous designs and the matter of new, replacement or repair OWTS should not matter. This section is about honoring older data.</p> <p>Discussion is outlined to be about Pre-percs, perc test and GW tests. Please include requirements or procedure for using older data. The older data if still acceptable can be used for any OWTS objective.</p>
334	7.14	Steve Brown	<p>I am not sure this section is necessary. My input on this topic has been that prior work to evaluate soil suitability and required testing was done with County staff and those decisions by licensed County staff should be honored. I relate this to visual interpretation of 50% coarse fragment, presence of mottling</p>
160	8.1.A.4	Jeff Loe	<p>Typical modern septic tank access covers do not contain handles. Remove mention of handle.</p>
084	8.1.A.4 and 6	Elsa Frick	<p>They seem to be the same but different, redundant Anyway</p>
161	8.1.A.5	Jeff Loe	<p>Cleanout requirements stated are incomplete. Cleanouts in the building sewer are regulated by CA Plumbing Code 707.4 and need not be included in OWTS Manual. Recommend omitting this item.</p>
162	8.1.A.7	Jeff Loe	<p>I do not believe NSF certifies effluent filters. Please confirm and cite the certification or omit mention of NSF.</p>
163	8.3.E.2	Jeff Loe	<p>If an owner/builder installs their own septic &amp; sump tank must they hire a licensed contractor to fill the tanks with water? Recommend editing items 2 &amp; 3 to say Fill the tanks with water to <math>\geq 2</math> inches into the riser.</p>
164	8.4.A	Jeff Loe	<p>Pumps can be used for more than elevating effluent to a higher elevation than the structure served. Avoid unnecessary narrative.</p>
165	8.5	Jeff Loe	<p>Avoid unnecessary narrative. Perhaps what is meant is that all nonstandard systems require pumps for intermittent dosing.</p>
259	8.5.B.1	Mike Treinen	<p>Apparently not a functional change in the OWTS but an inlet baffle 4" from the bottom will soon be in sludge, possibly causing blockages that will force the solids out of the <i>top</i> of the baffle. We've seen this in the field. Normal is an 18" vertical extension.</p>
166	8.6.D.1	Jeff Loe	<p>Suggest rewording to "Dosing tank with a pump which discharges on demand."</p>

260	8.6.D.1	Mike Treinen	If there is no water added to the tank in 3-4 hours or even days or longer, the pump will need to be designed to discharge only if there is water to discharge.
168	8.7 Figure 8.7	Jeff Loe	Interceptor Drain figure is horrible quality. I recommend that the detail be updated. Detail shows surface diversion ditch which is not always used; text does not offer any clarification on surface diversion. Surface diversion requires drainage review.
167	8.7.A.1	Jeff Loe	I don't believe CA HSC allows REHS to design drainage features.
115	9.1	Maria Carranza	Comment or Clarify: Standard Dispersal Trenches are often installed deep (72" for example). Standard trenches are also installed under a heavy massive clay cap without pre treatment.  Suggestion: Should pretreatment be required under clay cap. Uncertain if these deep trenches are acceptable. Code does not reference acceptability of deep trenches or clay cap.
018	9.1 Table 9.1	Ted Walker	Not needed.
019	9.1 Figure 9.1	Ted Walker	Standard trench only requires 12 inches of backfill. You show straw over rock, most good contractors and consultants ask for Mirafi 140N geotextile fabric, trench width is 18 inches wide.  Mound and At Grade Soil Cap on sloping sites is way, way too much here. In conversations with James Converse, there is no technical reason for the soil cap to extend to 10 feet. Four to six feet on the downhill side is all you need. You most likely will negate/or hide the chance of downhill toe breakout of the infiltrative area by throwing more soil here. If breakout were to occur, you want to know about it, not hide it. And following Mound Guidelines, remove the soil cap and extend the sand layer. Like we have done in the past. Please review the document, Troubleshooting, Inspecting Mound Systems.
086	9.1 Table 9.1	Elsa Frick	Table 9.1 is not entirely consistent with table 7.2b It has already caused trouble
109	9.1.D	Greg Schram	Standard system should be allowed on slopes greater than 30% with a geotechnical report.

085	9.1.D	Elsa Frick	This needs to be struck There is no justification for this restriction it was changed in the last OWTS7.0 and should not have been It has rendered perfectly functioning and sited septic systems now non conforming and there is no justification for the departure from past practice
110	9.2 Figure9.2	Greg Schram	I would state that this is just an example and dimensions may vary.
172	9.2 Figure9.2	Jeff Loe	Detail is poor; suggest new detail with concise annotation. Left side: Trench depth leader left side of trench, Right Side: Backfill depth per plan, 12 inches min Geotextile fabric, untreated building paper or 2 inches straw Drain rock over pipe, 2 inches Distribution pipe - 3 or 4"Ø, level, end capped Drain rock under pipe per plan, 12 inches min Trench bottom shall be level Bottom: Trench width per plan 18 inches min.
335	9.2.E	Steve Brown	Include nonwoven filter fabric also on Figure 9.2
087	9.2.I	Elsa Frick	This was added in the last OWTS revision. Sonoma County had no provision for equal distribution by distribution boxes as too often a box shifts and portals are missed, skipping lines unintentionally Equal distribution is flawed in distribution box technology, serial distribution can and does work fine on flat sites. There should at least be an option before some standard system on a flat site installed under permit 3 years ago gets deemed non conforming
169	9.2.J	Jeff Loe	Today's rectangular distribution boxes cannot easily be extended to grade. Best if they are buried 12" cover.
170	9.2.L	Jeff Loe	Unsure why L. "Construction and paving over leaching systems and replacement areas is prohibited." Is under Standard Dispersal Trenches; it applies across all system types. Might it better go in 4.2 Prohibitions?
171	9.2.N	Jeff Loe	Sewage distribution pipe is unclear. Suggest the distal end of Distribution Line or Leach line pipes shall be capped.
088	9.3	Elsa Frick	This section should be titled leaching beds and all use of the word seepage pit changed accordingly
173	9.3.A.4	Jeff Loe	Volume requirement is uncertain. Specify if the seepage pit <b>void volume</b> beneath inlet invert shall be $\geq$ to required minimum septic tank volume. Or however else that volume might be determined.

184	9.3.A.10	Jeff Loe	Suggest: Trench width of 18 to 24 inches as specified by designer and permitted by PRMD.
174	9.4	Jeff Loe	General System Installation Requirements – applies to Standard Dispersal Trench as well. Recommend bringing this to top of Section 9
175	9.4.C	Jeff Loe	Is the currently applicable code CA Plumbing Code? The code section is 701.2. OWTS Manual does not regulate building sewer. Suggest piping between septic tank and distribution boxes shall be DWV pipe as required for building sewer or SDR 35 PVC. Pipe in the distribution lines/leach lines need not be DWV or have water tight fittings. SDR 35 or spec is ASTM-F810. Please review and make this a specification.
176	9.4.E	Jeff Loe	Could be worded better
177	9.4.F	Jeff Loe	Suggest rewording “Construction of OWTS shall be avoided when soils are wet or rain impending. If construction must proceed, the qualified consultant should determine and advise whether compaction and smearing will occur, and issue instructions to minimize compaction and smearing. Trenches that have remained uncovered during any substantial rain may require abandonment or entire retrenching.”
178	9.5	Jeff Loe	Recommend word track rolled rather than compaction. Compaction suggests vibratory. In fact 9.6 A.16.d. says avoid soil compaction.
185	9.5.A.8	Jeff Loe	Suggest that 8 & 11 be combined: The distribution pipe shall be covered with 2-3 inches of drain rock and 12” of soil (native + import).
182	9.6 Table 9.6	Jeff Loe	Recommend title Filled Land OWTS Trench <b>Depth</b> and Fill Requirements Table rows 1, 4, 6 & 9 result in gravel placement above the bottom of the fill. I caution against this, because a surcharged leach line could out flow preferentially via the fill native soil contact. I do not believe effluent in the trench should be allowed to contact sidewall comprised of fill soil.
179	9.6.A	Jeff Loe	Recommend: Filled Land OWTS utilize onsite or imported fill to deepen the soil in the leach field area. The fill functions as cover soil, and not as trench absorption area.  Read what you have written: Systems are systems, imported soil is imported, minimum depth of 12 inches over native soil for the dispersal trench area of the system.

180	9.6.A.2	Jeff Loe	Confusing/recommend rewording 2. Filled Land proposals for subdivisions which have received tentative map approval based on the prior filled land septic system policy dated January 1, 2009 shall not be deemed acceptable for processing of the septic requirements for the subdivision. shall be re-evaluated under current Filled Land or alternate OWTS criteria.
336	9.6.A.2	Steve Brown	This section should be eliminated. The change in depth of soil for fill systems is long enough ago that it does not apply to current development.
181	9.6.A.3	Jeff Loe	Unclear intent Too many thoughts and likely unnecessary. Recommend:  With the exception of the fill, Filled Land OWTS shall meet standard system siting and sizing criteria.
183	9.6.A.7	Jeff Loe	Suggest that the full depth of gravel (beneath, around and over the pipe) be in native soil, which would limit fill to ≤12 inches.
186	9.6.A.11	Jeff Loe	Suggest that 8 & 11 be combined: The distribution pipe shall be covered with 2-3 inched of drain rock and 12" of soil (native + import).
187	9.6.A.18	Jeff Loe	Omit "or sodded" Sod requires irrigation and therefore should never be used on filed land system. Also applies to 9.7 C.3.
188	9.7	Jeff Loe	The soil depth requirement for shallow sloping is unclear. Please clarify.
189	9.7.A.2	Jeff Loe	This is confusing: If soil profiles ... prove unsatisfactory and are supported by soils profiles.. Please rewrite.
190	9.7.A.3	Jeff Loe	This section is on number of perc holes. Eliminate excess language.  "One hole 50 feet downslope of the lowest leach line in the primary/replacement area." <del>to show the permeable top soil is continuous (for example adequate distance and depth of soil exists to provide filtration and treatment of effluent).</del>
192	9.7.B.6.c	Jeff Loe	Recommend that the diversion valve be housed in a readily accessible enclosure. Monument has no meaning.
193	9.7.B.7.a	Jeff Loe	What depth of groundwater is required?
191	9.7.B.4	Jeff Loe	What does the statement mean. "Non-residential designs will be based on Permit Authority, EPA, or other approved design criteria." PRMD is the permit authority, EPA could be used to estimate waste flows and wastewater strength, what other approved design criteria would apply. <b>If this is about waste flow and strength,</b>



			<b>those are addressed elsewhere.</b> I recommend that Shallow Sloping be allowed only for residential applications.	
194	9.8	Jeff Loe	<p>Recommend name change to Standard Pressure Distribution OWTS or Standard PD.</p> <p>The term Shallow Trench Pressure Distribution (STPD) has historically been used for a non-standard type of OWTS and is mentioned in MOU's and older septic regulations as a non-standard system.</p>	
195	9.8.A	Jeff Loe	Nothing is stated in regards to design of the pressure distribution system. Please refer to another section or make this clear.	
046	9.8.A.5	Tai Nguyen	Section 9.8, A, 5: For pressure distribution system, proof of soil below the trench bottom is 3 feet. I would recommend change it to 2 feet since leach lines are equal distribution and soil can filter in 2 feet.	

111	11.1 Table 11.1	Greg Schram	<p>Country club at 125 gal/person – seems very high                  Factories – 35 gal/employee – seems very high, should be 15 gal/employee                  Hotels – 60 gal per two person room – seem very low                  Hotels without bathroom – 50 gal per two person room – seems very low                  Offices – 20 gal/employee – Seems high, should be 15 gal/employee                  Restaurant flows – the portion per meal is likely right, but to add 10 gal/person on top of it seems very high.                  Schools – 20 gal/person without a shower and cafeteria seems very high. That means every kid is going to the bathroom 10 times a day.                  Retails – 20 gal/employee – seems high, should be 15 gal/employee                  Mobile home park – 100 gal/person – not sure why a person living in a mobile home park would use more water than a person in a home.                  Wine tasting facility – 3 gal/person – seems high, also it use to be 2.5 gal/person and I have not heard of any issues with existing systems. Also by changing this from 2.5 to 3 you have now made all existing winery systems non-compliant.                  Employee – 15 gal/person – I believe this is correct, but it contradicts factories, offices and retails</p>	
337	11.1 Table 11.1	Steve Brown	<p>Several sections in this table seem excessive. The County promotes water savings in every area. USEPA uses a design flow table with ranges of flow that might be a useful alternative.</p>	
307	11.2	Tammy Martin	<p>Unless the MOU that allows Permit Sonoma to permit small winery process wastewater systems has been revoked, I do not understand why this section has been removed. At a minimum, however, there should be language in this section to allow Permit Sonoma to issue tank only permits for winery process wastewater systems. The regional board is not going to perform construction inspections for process wastewater holding tanks, or sump tanks – nor are they going to be performing construction inspections for an in-ground process wastewater system with pre-treatment.</p>	
261	11.5.A	Mike Treinen	<p>Provide an example of where one might be used.</p>	

199	11.6 Figure 11.6	Jeff Loe	Please consider using the details that were prepared for PRMD on request in April 2021 to substitute for the current outdated details. Or update current details. I can adjust those details upon request.
196	11.6.A	Jeff Loe	Groundwater is sampled as suggested in 11.6 C. Please make consistent
197	11.6.B	Jeff Loe	Industry advocates C-33 concrete sand as equivalent to Monterey Sand. Please add C-33 concrete sand in place of or equivalent.
198	11.6.G	Jeff Loe	Annular seal 12 inches deep - should suffice. Extra verbiage is confusing.
092	13	Elsa Frick	A provision needs to be stated in this policy that existing Mound system designed under the old application rate of 1.2 gal/sf/day for the sizing of the gravel bed will be considered equivalent to code conforming mounds and the gravel bed will require increase in size when and if it needs to be replaced.
112	13.1	Greg Schram	Most of this section should be rewritten. Most of it does not apply anymore. Especially the part of them only allowed in flood plains.
338	13.1	Steve Brown	This section should probably be re-written. I'm afraid I had volunteered to do so and did not get it done. Originally I think bottomless sand filters were meant to be a modified mound, enclosing the basal area to eliminate the large footprint created by the sand and topsoil tapers.
200	13.1.A	Jeff Loe	Bottomless sand filter need not be an above grade configuration. Inground bottomless sand filters are common.  Remove word an before ASTM in second sentence.
202	13.1.B.3	Jeff Loe	Remove "winter time"
203	13.1.C.2.b	Jeff Loe	Be careful not to word surface water diversion in a way that triggers drainage review. Consider "Finish grade shall promote positive surface runoff away from the BSF." This language could/should be used for Mounds and At-Grades.
204	13.1.C.3.a	Jeff Loe	Reference to C-177 is wrong and is unnecessary. Avoid errors by eliminating unnecessary references. Recommend eliminating <del>as determined by ASTM D 136 and C 177;</del>
205	13.1.C.4.e	Jeff Loe	A 2 inch transport and manifold piping could be too large for some designs. Typically should be designed for velocity $\geq 2$ feet per second. I suggest using language from GPDC "All system components shall be appropriately sized for the system dosing flow rates, and shall meet specifications of the manufacturer. All transport piping, supply and return manifolds and fittings must be Schedule 40 PVC or Schedule 80 PVC if threaded fittings are utilized."

206	13.1.C.4.h	Jeff Loe	The blow off mentioned is no where defined and is referred to as Purge Valve elsewhere in the manual. Please use consistent language. Suggest: Each distribution lateral shall be equipped with a purge valve at the distal end. The purge valve shall be housed in a secure, easily accessible valve box.	
207	13.1.D.1	Jeff Loe	Suggest replacing <del>Wooden containment vessels</del> with "Above grade BSF enclosures"  Where the liner is buried for sand filters within an earthen structure, a plywood form is used to hold the liner and the geotextile fabric cushion in place. The plywood need not be pressure treated, because it can rot away with no ill effects.	
208	13.1.D.5	Jeff Loe	For maintenance and repair - I advise against having the boots on the interior (aggregate) side of the BSF. Have you ever tried to expose a feature buried in sand and gravel? All boots shall be placed on the outside of the liner.	
209	13.1.E.5	Jeff Loe	Performance wells exterior of BSF shall extend 24 inches "below the bottom of the sand media"	
201	13.1.X	Jeff Loe	Please include sizing criteria. Recommend: Sizing the Infiltrative Surface - The minimum required infiltrative surface area (the top surface of the filter media) must be determined by dividing the design flow estimate by the sewage Application/Soil Loading Rate. In no case shall effluent be applied to the BSF at a rate exceeding 1.0 GPD/SF.	
211	13.2x	Jeff Loe	Please include GPDC sizing criteria. Recommend: Sizing the Infiltrative Surface – The infiltrative area is the trench bottom area. The minimum required infiltrative surface area shall be determined by dividing the design flow estimate by the sewage Application/Soil Loading Rate.	
212	13.2.C.2	Jeff Loe	Please clarify: Why spacing closer than 36 inches is preferred for mounds and at-grades and 24 to 72 inches is allowed for GPDC. 2. GPDC installations space orifice holes 24 inches minimum to 72 inches maximum on center.	
093	13.3 Figure 13.3d	Elsa Frick	This figure is too illegible to be included in this document please address it with a legible copy	
339	13.3.B.1.b	Steve Brown	Presoak in the test holes belongs in the perc test section. It applies to tests of any depth.	

090	13.3.B.4	Elsa Frick	This seems arbitrary and will require a great deal of additional testing. It was not necessary please address what was wrong and how you expect this to be reasonable demonstrated?
213	13.3.B.4	Jeff Loe	I do not recall discussion with TAC that soil only required 10' from mound for flat sites. I am not comfortable with this. Could allow mounds perched on a level mesa with hardly any surrounding soil. What would the LLR be for a mound with so little surrounding soil?
089	13.3.B.6	Elsa Frick	Yet another restriction, leave the pervious language as it was
091	13.3.B.7	Elsa Frick	<p>No basis for this has been reasonable presented. Staff asking for it is not sufficient. Staff have minimal experience in the field in general and almost no experience in the actual construction of the above ground systems. They only review once the system is built. They seem to be relying on imaginary methods of construction not supported by experience or research. While they are a smart bunch, they do not have the experience they need to push for this kind of change that has to potential to change the course of many projects past and present, This is a huge departure form the past practice and will result in too many “state of the art” septic systems now being rendered</p> <p>NON CONFORMING. There must be sound justification for this. There is nothing in state policy that requires this. There is nothing i the Wisconsin Mound Manual that supports it for “expansion areas”. This is a change that will warrant substantial push back from the community and property owners. It would make more sense to include language that address the past practice as acceptable and defines it where the “code was silent”. This change alone, could be the “deal killer.” in the adoption of this OWTS</p>
340	13.3.B.7 8 & 9	Steve Brown	<p>If you are going to document minimum separation distances it should memorialize past standard practice, unless there is monitoring data to suggest that greater separation is needed.</p> <p>Past practice minimum separation has been 0 foot overlap of basal area. Implementation of this standard will render many properties as legal nonconforming without design of an alternative system. This is a monumental change without documented justification.</p>

038	13.3.B.9	Rich Holmer (1/17/2022)	<p>The separation distances between mounds are proposed to be increased. The substantiation for this change is unclear since mounds have been found to be very dependable systems if they are properly maintained. Current design practice appears adequate. This change means that many approved mounds will now become “legal non-conforming”.</p> <p>Again, the justification for this change is unclear. I request that changes that deviate from the State OWTS policy and adopted codes be clearly substantiated by scientific evidence that supports the need for the proposed requirement and be subject to a peer review process.</p>	
113	13.3.B.9.a and b	Greg Schram	<p>This along with at grade separation is my biggest concern. The primary to primary separation is probably ok, but the primary to reserve separation seems way to large. They should be able to go sand toe to sand toe. If this regulation gets adopted all mound system will now be out of compliance.</p>	
308	13.3.B.9	Tammy Martin	<p>The increase in mound separations is NOT warranted! Properly designed, used, and maintained mound systems function perfectly well adjacent to each other. Furthermore, a primary system and reserve system will not be utilized at the same time, so allowing the sand basal areas to be butted up against each other is appropriate.</p>	
214	13.3.D.12	Jeff Loe	<p>Reference to proper drainage work is confusing. Please clarify or omit. Suggestion: “Finish grade shall promote positive surface runoff away from the mound.”</p>	

094	13.3.E and all sections in 13 requiring monitoring wells	Elsa Frick	Please speak to the need and purpose of the performance wells. They were originally installed to assist in the the evaluation of the performance of the “expermental” and monitored systems . Please give some indication as to the use of the wells now given that they are not required to be in the monitoring program. I suggest the only wells to be required are in the gravel beds and at the toes of the systems downslope beds where they meet native ground . In this case they are trouble shooting tools for ho,e owners and not needed as they are no longer a part of the monitoring program I suggest the entirety of non standard monitoring wells be revisited. To my knowledge I am not aware of any real sampling that was done on these wells. They should not be required upslope and downslope of systems as they offer a home owner no information about the functioning of their systems.ONLY systems in the monitoring program should require monitoring wells and there should be stated standards for acquiring and using the information gained from these wells. It must be a justifiable requirement.	
215	13.3.E.1	Jeff Loe	Update performance well detail. Simplify <del>“constructed pursuant to construction detail”</del> shall be per Figure 11.6.	
216	13.3.E.1.d.2	Jeff Loe	I believe reference should be to 13.3 E.1.c.2.	
219	13.4 Figure 13.4	Jeff Loe	STPD Trench Detail The 2” dimension on left side includes lateral pipe. If the dimension included lateral pipe should be 3 inches.	
341	13.4.B.3.b & c	Steve Brown	“from 20 to 25” should be “up to 25” “from 25 to 30” should be “up to 30”  From 25 to 30 implies 30” trenches are not suitable from 0 to 20%	
342	13.4.B.8	Steve Brown	Change to “To maximize system function” .....”without the addition of an approved pretreatment unit”	
217	13.4.C.3.c	Jeff Loe	Suggest re-wording: Two inches of aggregate is required over the perforated sections of the pressurized line distribution lateral.	
343	13.4.C.5	Steve Brown	This does not belong in “Soil Cover” section.  Is it intended to say “Trenches shall not be backfilled with.....”	

218	13.4.D.2	Jeff Loe	STPE trenches not beds; omit word 'beds' 2. Construct trench <del>beds</del> with special attention to proper elevation and strict attention to contour.	
221	13.5 Figure 13.5a	Jeff Loe	Figure is poor and is not placed appropriately in the code. SIG illustration says 24" to LC, and SIG siting 13.6 B.4.a requires 36 inches.	
222	13.5 Figure 13.5b	Jeff Loe	Figure is poor and appears to be sloping in wrong direction. Remove " <del>Wisconsin</del> " from figure. Replace figure. Annotate Distribution Cell	
220	13.5.A	Jeff Loe	Remove " <del>Wisconsin</del> " from this introductory paragraph. We call it At-Grade not Wisconsin At-Grade.	
309	13.5.B6-8	Tammy Martin	Same comments as 13.3.B.9 above	
344	13.5.B.3	Steve Brown	Replace "to elevated groundwater" with "to limiting condition"	
095	13.5.B.6	Elsa Frick	No basis for this has been reasonable presented. Staff asking for it is not sufficient. Staff have minimal experience in the field in general and almost no experience in the actual construction of the above ground systems. They only review once the system is built. They seem to be relying on imaginary methods of construction not supported by experience or research. While they are a smart bunch, they do not have the experience they need to push for this kind of change that has to potential to change the course of many projects past and present, This is a huge departure form the past practice and will result in too many "state of the art" septic systems now being rendered  NON CONFORMING. There must be sound justification for this. There is nothing in state policy that requires this. There is nothing i the Wisconsin Mound Manual that supports it for "expansion areas". This is a change that will warrant substantial push back from the community and property owners. It would make more sense to include language that address the past practice as acceptable and defines it where the "code was silent". This change alone, could be the "deal killer." in the adoption of this OWTS	
223	13.5.B.6	Jeff Loe	Does Secondary At-grade follow 13.5 B.6.a. or 13.5 B.7.a.	
345	13.5.B.8	Steve Brown	If you are going to document minimum separation distances it should memorialize past standard practice, unless there is monitoring data to suggest that greater separation is needed.	



114	13.5.B.8a and b	Greg Schram	This along with mound separation is my biggest concern. Both of the proposed separations seem too large. The separation from primary to primary should be no more than the width of the gravel bed and the reserve areas should be able to be gravel bed to gravel bed. No more than 5' apart. If this regulation gets adopted all mound system will now be out of compliance. There is also no reason to propose this kind of separation. We have not experienced any issues.
224	13.5.B.8.a	Jeff Loe	There is no reason to change what has been practiced since 1995. There is no reason the cover soil can not provide adequate separation between at-grade beds. Suggest: a. Downslope separation distances shall be measured from the down slope edge of the primary at- grade <del>(toe of fill)</del> gravel toe to the up slope edge of the distribution cell aggregate area of the secondary or reserve at- grade.
225	13.5.C.3.d.i	Jeff Loe	Correct pile to pipe. ...."gravel below the distribution <del>pile</del> pipe"
226	13.5.C.3.d.ii	Jeff Loe	Correct pile to pipe. ...."gravel below the distribution <del>pile</del> pipe"
227	13.5.C.3.f	Jeff Loe	Reword for clarity: f. The gravel bed shall extend at least 2 two feet <del>above</del> upslope of the uppermost distribution pipe lateral.
228	13.5.C.6.b	Jeff Loe	Recommend rewording to eliminate what is uncontrollable and unnecessary: b. 12 inches of soil covering <del>after settling</del> is to be placed over <del>all</del> the aggregate distribution cell, and shall extend to the limits indicated on the plan. <del>Additional depth of topsoil must be placed during the time of construction to assure that the minimum depth is achieved following natural settling of the soil.</del>
229	13.5.C.7.b.iii	Jeff Loe	Balancing valves shall be gate valves, Purge Valves shall be ball valves. Ball valves are not sensitive enough to balance. Gate valves require too much hand operation for purge.
230	13.5.C.7	Jeff Loe	Sizing formulae are not given. Suggested edits: 9. <del>Sizing formulas for at-grade systems.</del> Sizing calculations for all at-grade dimensions shall be provided with all proposals.
231	13.5.D.7.f	Jeff Loe	Reference to proper drainage work is confusing. Please clarify or omit. Suggestion: "Finish grade shall promote positive surface runoff away from the mound."
232	13.6.B.6	Jeff Loe	Justify 48 inches to bedrock or make is 36" as for all other OWTS. Suggested edit: 6. Systems shall have a minimum separation of 36 inches from trench bottom to groundwater, fractured rock, bedrock, or impermeable soils <del>beneath trench bottom and 48 inches to bedrock as measured beneath proposed trench</del>

			bottom. Note that minimum separation may be reduced to 24 inches below trench bottom if acceptable pretreatment is used.	
233	13.6.C.2.b	Jeff Loe	13.6 B.1. allows SIG on slopes to 25%. 13.6 C.2.b. requires trench spacing of 10 feet to 20% and does not indicate spacing for 20-25% slopes.  I see the SIG system akin to filled land STPD. I believe 8 foot trench spacing is adequate on slopes to 25%	
234	13.6.C.3	Jeff Loe	Reference to sand filter is improper when they are not addressed in the OWRTS manual. Please omit. Suggestion: 3. <del>Sand filter or other approved</del> Approved Pre-treatment units are required on sites with percolation rates faster than 5 or slower than 90 minutes per inch.	
235	13.6.D	Jeff Loe	The reference to Mound Construction is improper. Fill placement is similar to 9.6 A.14. Construction of trenches is similar to STPD 13.4 D. Suggestion: D. The construction criteria for SIG OWTS includes the following: 1. See Section <del>13.3D</del> 9.6 A.14 for fill placement & 13.4 D for trench construction.	
239	13.7	Jeff Loe	Fill placement is similar to 9.6 A.14. tubing installation is similar to Subsurface Drip Dispersal OWTS 13.7 D. Suggestion: D. The construction criteria for Filled Land Drip Dispersal OWTS includes the following: 1. See Section 9.6 A.14 for fill placement & 13.7 D for trench construction.	
346	13.7.C.3	Steve Brown	This section can incorporate the level of drip line installation up to the ground surface and fill soil cover eliminate Section 13.8	
236	13.7.C.17	Jeff Loe	Misplaced text - This point belongs in Pretreatment Units section. The sentence is unclear and needs clarification. 17. For aerobic treatment unit (ATU) systems that function with external blowers, a cutoff switch or interlock that disables the pump shall be built into the control panel so the discharge pump will not function if the blower is <del>may not be</del> turned off.	
237	13.8	Jeff Loe	This is a poor name for this system. Drip tubing is used for surface dispersal in some parts of the country. The described system does not surcharge at the surface as surface discharges are not permitted without WDR's. A better name might be At-Grade Drip Dispersal, or Filled Land Drip Dispersal.	

240	13.8	Jeff Loe	Table of Contents says Pretreatment Units In body of text is 13.9	
238	13.8.A	Jeff Loe	Description is confusing – make it more concise. Suggested possible alternate description A. A Filled Land Drip Dispersal OWTS involves drip tubing placed at the original ground surface through an imported or onsite fill soil which is placed to function as cover over the tubing. The fill is placed prior to placement of the tubing, the tubing is then placed at original grade level in narrow trenches that are hand excavated in the fill.	
347	13.9.B	Steve Brown	Change to “...minimum depth to a limiting condition to two feet. However, in all instances, at least two of the required three feet below disposal depth must be acceptable native conditions.”	
241	13.9.C	Jeff Loe	Please do not overlook the Single Pass – Intermittent Sand Filter. This section mentions recirculating sand filters. There are perhaps more single pass sand filters in use in the County that recirculating sand filters.	
242	14.A-H	Jeff Loe	Check & re-word references to non-standard systems.	
318	14.13.C	Steve Brown	Change to “Exception for installation below an Impermeable soil lens” The use of a non-standard system is redundant; if a pretreatment unit is required then a standard system becomes nonstandard by definition.	
348	17	Steve Brown	Sites that require variances often are stuck with a “best possible” scenario. If that is the case, it is near impossible to “assure that public health and water quality protection at least equal to that established by the rules, is provided.”	
262	17 Table 17	Mike Treinen	I wasn't a part of the discussion to remove this table - possibly unacceptable to the state gods. I think it was an excellent guidance tool for designers and should be reinstated if possible.	
263	18.A.1-12	Mike Treinen	Although apparently not open for comment, these special study & prohibition areas are old appendages. Most or all could be eliminated in deference to the extremely strict current standards which were generally not present when they were promulgated long ago. These just make regulations more complex and expensive. (I commented thus in 2018 but you lost my comments)	
039	18	Rich Holmer (1/17/2022)	This section should be eliminated. Most of these provisions were adopted decades ago prior to the new, more rigorous State OWTS standards. Special area requirements and the prohibition of variances create havoc with permitting of replacement dispersal systems.	

096	18	Elsa Frick	Eliminate this outdated section of the manual. The extremely restrictive practices outline in this and the OWTS 7.0 manual address all these concerns many of which were adopted long before we had the plethora of innovative systems we have now. This section is superseded through the current OWTS and none of these areas have restrictions more restrictive than what is in the OWTS. It causes confusion for all and is not necessary.
268	20.2-20.4	Mike Treinen	All APMP descriptions should be <i>consistent</i> in finding that even though a parcel may be within the boundaries, the regs will not apply to systems totally outside of the boundaries. Hopefully the state or county will have clear detailed maps available down to parcel level <i>before</i> any enforcement begins..
264	20.1	Mike Treinen	This section requires telemetric connections, monthly to quarterly monitoring and quarterly sampling & service providers. Beyond moderate to high owner costs, is PRMD remotely prepared for the number of personnel needed to properly review, enforce, make and return phone calls & e-mails, filing reports etc? Or will all those reports just get filed - if even that. This needs serious review and paring down to be reasonable and enforceable or it will be just another failed program.
265	20.2.B.1	Mike Treinen	What are HUC-12 sub waterways? Spell out what it is and better where to find them.
266	20.2.D.5.a	Mike Treinen	Huge volume of work <i>in addition</i> to 20.1 above. To check for cracks the tank must be located and excavated as often needed and pumped (\$450-\$600 plus tank locating & excavation) to look for cracks. And a report must be done. In many cases tanks are hard to locate, under decks, under houses, under landscaping, in blackberry or poison oak patches, very deep etc. - all things we see in the field. Estimated minimum costs \$1,000+ plus I'm sure county fees to cover the substantial staffing needed to <i>properly</i> handle this program with the same programmatic issues as noted in comments for 20.1. Industry staff may be overwhelmed as well. Things to think about.
267	20.2.D.5.b	Mike Treinen	Huge volume of work <i>in addition</i> to 20.1 above. To check for cracks the tank must be located and excavated as often needed and pumped (\$450-\$600 plus tank locating & excavation) to look for cracks. And a report must be done. In many cases tanks are hard to locate, under decks, under houses, under landscaping, in blackberry or poison oak patches, very deep etc. - all things we see in the field. Estimated minimum costs \$1,000+ plus I'm sure county fees to cover the substantial staffing needed to <i>properly</i> handle this program with the same

			programmatic issues as noted in comments for 20.1. Industry staff may be overwhelmed as well. Things to think about.	
269	20.3.F.2	Mike Treinen	If I interpret these Petaluma and Sonoma Creek related sections correctly, any property without a septic tank and code compliant system, including undersized systems, regardless of function! must replace their system to be code compliant (\$\$\$\$). <i>Without some indication of a system failure</i> , this is premature and way excessive. Most old systems are undersized according to current standards and there are still some cesspools out there and systems that may be interpreted as needing corrective action. Hopefully this is reworded.	
270	20.3.F.3	Mike Treinen	If I interpret these Petaluma and Sonoma Creek related sections correctly, any property without a septic tank and code compliant system, including undersized systems, regardless of function! must replace their system to be code compliant (\$\$\$\$). <i>Without some indication of a system failure</i> , this is premature and way excessive. Most old systems are undersized according to current standards and there are still some cesspools out there and systems that may be interpreted as needing corrective action. Hopefully this is reworded.	
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040	21	Rich Holmer (1/17/2022)	It is time for the Board of Supervisors to amend the County Code to actually allow these. It is ridiculous to have standards for waterless toilets but to have a prohibition in the County Code against installing them. The proposed OWTS policy adoption process should include an amendment to the County Code to eliminate the prohibition.	
097	21.3	Elsa Frick	Not consistent with County Code. This needs the Code amended in order for this to be meaningful, please	
041	22.1	Rich Holmer (1/17/2022)	This essentially requires that anything that is not listed as an exception in the County standards will require Waste Discharge Requirements from the WQCBs. This is an expensive, time consuming and onerous process. The idea of a Tier 2 LAMP is to allow some flexibility for local conditions. This proposal does not allow for flexibility and creates a nightmare process for the property owner. It is actually not clear if the County is submitting this policy as a LAMP or is simply adopting OWTS standards.	