Commenter	No.	Summarized Comment	Agency Response
Kyla Brooke and others	Brooke-1	The current Sonoma County voluntary upgrade program should be extended so that property owners with cesspools or failing septic systems, at their expense, could bring systems up to the best practicable standards under current County regulations. Continuation of the voluntary upgrade program would be more affordable and would put less burden on regulators' limited resources than the approach that has been proposed.	Consistent with requirements of the statewide OWTS Policy, the Regional Water Board is establishing an Advanced Protection Management Program (APMP) for OWTS that are near impaired water bodies. The intent of the APMP is to provide advanced protection beyond which is afforded by the local OWTS program. The APMP set forth in the 2019 Action Plan requires that new and replacement OWTS include supplemental treatment and/or an enhanced effluent dispersal system that is designed to provide pretreatment of domestic wastewater from OWTS so that the OWTS discharge is sufficiently treated onsite so as not to pose a threat to surface water and groundwater.
			The local agency has the latitude to authorize new and replacement OWTS in manner it chooses, through a voluntary program implemented in accordance with an approved LAMP for example, as long as the new and replacement OWTS meet the minimum requirements of the APMP.
Steve Martin	Martin-1	This data suggests to me that septic systems are not the problem and that the Water Board has yet to identify the true source of the bacteria. Locations that have the highest rate of exceeding the targets seem to be unofficial public access spots where there are no bathroom facilities and homeless encampment locations. I think there is very little to gain by burdening homeowner and landlords with extreme and hugely expensive septic requirements. The water board has failed so far to establish that septics are the source of the bacteria and to present a cost/benefit analysis of their proposed regulations.	Based on the monitoring data, Regional Water Board staff has concluded that the presence of fecal indicator bacteria at concentrations that often exceed water quality standards in the Russian River Watershed is a result of multiple sources of human and domestic animal fecal waste entering surface waters. Available monitoring data do not enable Regional Water Board staff to rank sources according to their relative contribution. But, the data do indicate a correlation of human- based fecal indicator bacteria with dense neighborhoods served by OWTS. The Action Plan requires that all septic systems function properly and prevent the discharge of fecal waste to public waters. This is a reasonable, public health and water quality pollution prevention requirement. Septic systems that function properly, prevent discharge, and do not otherwise risk

Commenter	No.	Summarized Comment	Agency Response
			discharge are not at issue. Specifically, the Action Plan requires corrective action for cesspools, OWTS that are failing as defined in the statewide OWTS Policy, and that are routinely operated under conditions of hydraulic overloading, a condition that result in overflows and solids carry-over to and clogging of the effluent dispersal field. Although under certain circumstances, corrective actions to address these conditions might be expensive, these actions cannot be described as "extreme." When amending a Basin Plan, for example, to establish a program of implementation, state law requires the Regional
			Water Board to consider a reasonable range of economic factors associated with compliance with TMDL requirements. This economic consideration does not require a "cost-benefit" analysis. A discussion of potential costs of complying with implementation actions set forth in the 2017 draft Action Plan is presented in Section 12 of the 2019 Draft Staff Report.
Martin and Ellen Silge	Silge-1	The main stem of the Russian River is not impaired according to USEPA standards. The major contributors of pollution are some properties along the tributaries to the river, not properties along the river.	While the Regional Water Board is obligated to use the statewide bacteria standards when developing a pathogen TMDL, there are multiple other lines of evidence of a) potential exposure to illness-causing pathogens, b) discharge of fecal waste, and c) risk of discharge of fecal waste that are valuable to establishing reasonable protections for public health and the environment. The Russian River Pathogen TMDL Action Plan is reasonably and responsibly based on all the evidence developed during monitoring, not only the E. coli data. The 2019 Staff Report congregates all the available data by HUC-12 subwatersheds as the smallest reasonable unit for assessing the multiple lines of evidence. To focus implementation actions on properties along the tributaries based on a single line of evidence that the commenter believes indicates that the mainstem is not impaired and the pathogen sources are located

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			along the tributaries is not consistent with how the TMDL
			studies were designed nor consistent with the TMDL
			conclusions based on all the lines of evidence. Moreover, the
			TMDL makes no finding identifying whether OWTS near the
			mainstem or along the tributaries are the primary contributors
			to violations of water quality objectives. The Action Plan only
			requires that OWTS owners within the areas of concern (i.e.,
			APMP boundary) assess their own systems to confirm that they
			are fully functioning. If OWTS are cesspools, failing or
			overloaded, the OWTS owner must seek replacement or repair.
	Silge-2	The majority of the recreational users of the	While that statement may be true, it is the objective of the
		river are not from the properties along the river,	Action Plan to protect the water contact beneficial use for
		but visitors from other areas. Recreational	everyone who recreates in the Russian River and its tributaries.
		Agencies should participate in defraying costs.	In accordance with a 2016 Memorandum of Understanding
			between the Regional Water Board, Sonoma County, and the
			Sonoma County Community Development Commission, these
			agencies will work together to address fecal pollution from
			recreational users of the river. Included in that coordinated
			effort will be outreach to commercial recreational outfitters to
			encourage them to address fecal waste from their customers
			using the waterways. Who will bear the costs of
			implementation actions will be an item of discussion.
City of Santa	CSR-1	Recycled water discharged from holding ponds is	The 2017 Action Plan was revised to require the NPDES permit
Rosa, Bennet		identified as a potential bacteria source with	for each entity authorized to discharge treated wastewater
Horenstein		minimal evidence provided to support the	from holding ponds for the Russian River or its tributaries to
		conclusion. The Action Plan assumes that the	include effluent limitations that implement the WLAs where it
		proposed actions are supported when, it	has been determined through a reasonable potential analysis
		appears sufficient legal and technical basis may	(RPA) that the discharge from the holding pond has the
		be lacking. Discharges from the City of Santa	reasonable potential to cause an exceedance of the WLAs. The
		Rosa's recycled water holding ponds are	2019 Action Plan also requires Regional Water Board permit
		seasonal and infrequent and are clearly not	writers, as soon as possible, to include in existing and renewing
		responsible for the persistent pathogen	NPDES permits new requirements for Dischargers to collect

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		impairment in the watershed. Santa Rosa	information that can be used in the RPA to determine whether
		recommends that the Action Plan address	effluent limitations are required to achieve the WLA. It is
		controllable sources first and remove recycled	expected that all existing NPDES Permittees will have collected
		water holding ponds as a potential pathogen	enough information to conduct the RPA within seven years
		source until further monitoring and testing is	after the effective date of the TMDL Action Plan. After
		performed.	completion of the RPA and if a Permittee is unable to
			immediately comply with calculated water quality-based
			effluent limitations (WQBELs), the Regional Water Board may
			authorize a compliance schedule of up to ten years to achieve
			the WQBELs.
	CSR-2	Establishing new effluent limitations for E. coli	See response to CSR-1
		within recycled water ponds could significantly	
		impact Santa Rosa's long established and	
		reliable recycled water program, encouraging	
		direct discharge and discouraging recycled water	
		storage. The Regional Water Board should	
		consider limiting the implementation plan to	
		require source investigation. If the potential	
		source is confirmed upon analysis of testing	
		results, adaptive management provisions within	
		the TMDL could allow for development of a	
		longer-term tiered action plan as needed.	
	CSR-3	Santa Rosa recommends specific inclusion of	In August 2018, the State Board adopted new bacteria
		language for high flow suspensions, seasonal	objectives for the protection of recreation, including
		suspensions, and/or limited water contact	implementation provisions. As described by the commenter,
		recreation (LREC-1) designation to better align	the adopted bacteria provisions allow for a high flow
		with the State Water Resources Control Board	suspension, seasonal suspension or limited water contact
		recently drafted Bacteria Objectives. Santa Rosa	recreation designation, where a use attainability analysis
		requests that the Regional Water Board	supports the designation. As a reminder, the Basin Plan's
		establish extended compliance timelines to	bacteria objective is a 3-part objective that addresses
		address wet weather impacts and include a wet	protection of natural background, the recreational beneficial

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		weather objective for Russian River tributaries	use, and shellfish harvesting beneficial use. Because the
		when REC-1 water contact activities during the	objective requires that the bacteriological quality of waters of
		wet weather season is unlikely to occur.	the North Coast Regional not be degraded beyond natural
			background levels, there is no practical purpose in the Regional
			Board conducting a use attainability analysis on the recreational
			beneficial use at this time. That is, the recreational beneficial
			use is not the most restrictive element of the bacteria objective
			and therefore the Regional Board has no plans to develop a
			high flows or seasonal suspension or a LREC-1 designation for
			the Russian River
	CSR-4	Santa Rosa recommends the Regional Water	Thank you for the recommendation. As suggested by the
		Board provide a method to select compliance	commenter, the ability to confirm compliance with permit
		sampling locations that are actively used as	requirements and the Basin Plan is contingent upon selecting
		water contact recreation areas.	representative locations, using appropriate sampling and
			analytical techniques, and ensuring adequate quality
			assurance/quality control procedures. With respect to
			monitoring for ensuring compliance with the Basin Plan's
			bacteria objective, there are 3 components of the objective as
			described in response to CSR-3. Staff will be available to discuss
			appropriate monitoring locations with the City as part of the
			NPDES permit renewal. Similarly, the City may wish to raise this
			topic at the Russian River Regional Monitoring Program
			Steering Committee meetings to promote the development of a
			technical group that could address this and other similar
			monitoring issues.
	CSR-5	Santa Rosa recommends information used to	Staff believes the evidence presented is sufficient to conclude
		derive this conclusion be specifically included to	that Santa Rosa Creek is impaired as a result of high bacterial
		support the general statement on Page 4-4	loading. Staff favored the simpler approach to addressing the
		"other evidence that Santa Rosa Creek is	comment, by removing reference to "other evidence."
		impaired due to high bacterial loads ".	
	CSR-6	The Staff Report states that municipal storm	Microbial Source Tracking (MST) studies could provide valuable
		water is an existing source of bacteria.	information to an enrollee to target the bacteria sources within

Commenter	No.	Summarized Comment	Agency Response
		Municipal storm water could simply be the delivery conduit, and not an actual source of bacteria. Source identification will be conducted as part of the Pathogens Study required by the MS4 permit. Santa Rosa recommends the Staff Report language be clarified recognize that source identification will be conducted within the Pathogens Study.	its jurisdiction in the most cost-effective manner. Any municipality enrolled under the MS4 permit has the discretion to conduct a Microbial Source Tracking (MST) study as a component of its Pathogen Reduction Plan. Bullet No. 3 of the Pathogen Reduction Plan scope of work requires a proposal to conduct investigation or research to confirm bacterial sources identified as impacting water quality. An MST study would satisfy this requirement.
	CSR-7	Pet waste is identified as an "assumed" source of indicator bacteria within the Russian River watershed, however the monitoring and source assessment "did not explicitly evaluate the contribution of pet waste." The Staff Report should provide recognition that source identification of Pet Waste is currently being addressed through Pathogen Special Studies implemented by the NPDES MS4 Phase I Co- Permittees.	Section 6 (Source Analysis) of the draft Staff Report will be revised to include recognition that pet waste is being addressed through Pathogen Special Studies implemented by the NPDES MS4 Phase I Co-Permittees.
	CSR-8	Santa Rosa recommends all jurisdictions with potential pathogens sources be included in the Proposed TMDL, not just Caltrans Storm Water, including transportation corridors such as Sonoma-Marin Area Rail Transit (SMART). The citation "Caltrans 2012" is also not included in the list of references cited in the Staff Report but is cited as the basis for the Caltrans that areas without encampments are not a significant source of pathogens.	Caltrans is identified as a responsible party in the Action Plan not because it manages a transportation corridor but because it implements an NPDES permit for storm water management. As described in the response to Schmidt-1 below, the Regional Water Board has entered an MOU with local entities to address pathogen discharges due to homeless encampments, such as might be at issue in the SMART rail corridor. SMART was named as a responsible party in the 2015 Draft Action Plan but removed in the 2017 Draft Action Plan because of the MOU alternative. Caltrans 2012 will be included as a cited reference in the 2019 Final Staff Report.

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	CSR-9	Santa Rosa recommends further	Table 2 of the 2019 Action Plan clearly indicates that
		acknowledgment that implementation of the	compliance with the MS4 permit and, the Pathogen Reduction
		Pathogens Study required by the MS4 permit	Plan, is the required implementation action for the "Municipal
		will provide the implementation mechanism to meet the intent of the Staff Report.	Storm Water Runoff" source category. No change to the staff report is needed.
	CSR-10	Santa Rosa recommends the Regional Board complete an updated fiscal impact analysis for the Proposed TMDL. A fiscal analysis from the Napa River TMDL that was used as the basis for costs was competed over ten years ago. Santa Rosa recommends that a third-party cost-benefit analysis be completed to provide unbiased and credible information to decision makers and stakeholders who will be impacted by the adoption of the Proposed TMDL.	The obligation to consider economics when adopting an Action Plan does not include an obligation to produce a cost-benefit analysis. The Regional Water Boards are legally required to consider economics in water quality control planning (basin planning) ¹ . There are two triggers for Regional Water Board consideration of economics or costs in basin planning. First, the Board must consider economics in establishing water quality objectives that ensure the reasonable protection of beneficial uses ² . Second, CEQA requires that the Boards analyze the reasonably foreseeable methods of compliance with proposed performance standards and treatment requirements. This analysis must include economic factors ³ .
			The Regional Water Board is not obligated to consider the balance of costs and benefits associated with implementation of a Basin Plan amendment. It is only obligated to consider economic factors and may adopt a Basin Plan amendment even if the costs are significant. As required, the Economic Considerations includes an estimate of costs associated with the compliance measures analyzed in the Environmental Analysis (CEQA). The costs are given as a range and dependent on the specific characteristics of the land or operation to which a given management practice is applied. Cost ranges were

¹ See Wat. Code, § 13240-13247
² CWC § 13241 (d)
³ Pub. Resources Code, § 21159 (a) and Cal. Code Regs., tit.14, § 15187 (c).

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			updated based on 2015 comments using readily available
			information, including local, state, and national data.
	CSR-11	Santa Rosa recommends security fencing be	Regional Water Board staff agree that the use of security
		included in anticipated costs for other	fencing could be an implementation action for other storm
		jurisdictions, not just Caltrans, and that no one	water permittees besides Caltrans, or as an implementation
		BMP is called out to any specific entity in the	action for other Fecal Waste Source Categories. Accordingly,
		Staff Report.	the 2017 Draft Staff Report was revised to apply the cost
			consideration to other jurisdictions and source categories, as
			appropriate. The 2019 Final Staff Report reflects these
			revisions.
Sonoma	SCWA-1	The Action Plan (page 1-7) implies that all septic	Regional Water Board staff does not agree that footnote 6 on
County Water		systems, all sewer lines, all manure ponds, etc.	page 1-7 implies that all septic systems, sewer lines, and
Agency,		are already leaking and therefore are	manure ponds, etc. are leaking. It states that leaking septic
Michael		controllable. These sources have the potential to	systems, leaking sewer lines, leaking or undersized manure
Thompson		leak and should not be purported to already be	ponds, etc., are controllable sources of fecal waste. No revision
		leaking. We request the Action Plan include the	is needed.
		following updated language.	
	SCWA-2	The language on page 2-5, paragraphs three and	The 2017 Draft Staff Report was modified with the
		four, which describe major water supply projects	recommended language on major water supply projects. The
		for the Russian River watershed should be	2019 Final Staff Report reflects these revisions.
		updated with the following language.	
	SCWA-3	The last paragraph on page 2-5 of the 2017 Draft	The 2017 Draft Staff Report was modified to remove the
		Staff Report is a discussion of the Water	language on the inflatable dam in the Wohler Bridge area. The
		Agency's inflatable dam in the Wohler Bridge	2019 Final Staff Report reflects these revisions.
		area. It remains unclear why this discussion is	
		included since no discussion of the other	
		seasonal dams/impoundments on the river is	
		included. If this paragraph remains in the final	
		version of the 2017 Draft Staff Report, please	
		remove the third sentence which states the dam	
		is deflated to allow for fish passage in the fall.	

Commenter	No.	Summarized Comment	Agency Response
	SCWA-4	The Regional Board has agreed that the Water Agency's responsibilities under its 2009 MS4 permit and 2015 MS4 permit (up for adoption) are limited by the Water Agency's lack of statutory authority. To make this clear, please add the following language after the first sentence of the third paragraph on page 5-27 of the Draft Staff Report.	It is the Regional Water Board's understanding that Sonoma Water owns and is responsible for land that is adjacent to creeks throughout the watershed. To the extent that there are fecal waste sources occupying these areas, Sonoma Water is responsible for ensuring that these areas are not contributing pathogen contamination to surface waters. Preparation of a Pathogen Reduction Plan is appropriate and justified. The 2019 Staff Report and Action Plan reflects this determination.
	SCWA-5	The Draft Basin Plan Amendment Action Plan, page 2, and the 2017 Draft Staff Report Section 5.4, do not specify if the numeric targets for E. coli and Enterococci bacteria are for fresh or marine waters or both. Please specify to which recreational waters (freshwater, marine, or both) the proposed numeric targets apply.	The Action Plan is designed to address pathogen pollution and impairment within the Russian River Watershed from headwaters to the river's discharge to the ocean at Jenner. The Action Plan does not address any pathogen water quality concerns that may be associated with ocean beaches. The State Board's newly adopted freshwater objectives for bacteria establish a salinity threshold below which the E. coli objectives apply and above which the enterococci objectives apply. The 2019 Final Staff Report and Proposed Action Plan have been updated to reflect the salinity threshold and variation in bacteria metric that applies.
	SCWA-6	What are the "other reports" on page 9-3 of the 2017 Draft Staff Report and under what conditions will they be considered necessary?	"Other reports" can be taken to mean reports not specifically required by the discharge permit's monitoring and reporting program. The reports may be required as part of a water quality investigation. Consistent with section 13267 of the California Water Code, in requiring those reports, the Regional Water Board will provide a written explanation of the need for the reports and must identify the evidence that supports requiring submission of the reports.
	SCWA-7	The Regional Board acknowledged that the Water Agency does not have land use authority in the Draft Implementation Actions table. The	The 2017 Draft Staff Report was revised to include this acknowledgement. The 2019 Final Staff Report reflects these revisions.

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		language on page 9-17 does not contain this	
		acknowledgement. To be consistent please add	
		the following underlined language.	
	SCWA-8	On page 9-4, bullet item "Russian River County	The 2017 Draft Staff Report was revised to correct the
		Sanitation District" should have footnote	reference. The 2019 Final Staff Report reflects these revisions.
		reference 18, not 1.	
	SCWA-9	As the 2017 Staff Report notes, an entity shall be	See response CSR-1.
		allowed to request and demonstrate that it is	
		infeasible for the entity to achieve immediate	
		compliance with the effluent limitations and the	
		Regional Water Board may authorize a schedule	
		of compliance. If monitoring demonstrates that	
		E. coli found in Russian River CSD's holding ponds is not human-sourced, will the Russian	
		River CSD still be required to be in compliance	
		with the proposed E. coli wasteload allocations?	
	SCWA-10	On page A-2, water quality monitoring results	The 2017 Draft Action Plan and Appendix A of the 2017 Draft
		are not indicators that those sources identified	Staff Report were revised to remove the reference to water
		are specifically the sources that have resulted in	quality monitoring results identifying potential sources. The
		fecal indicator bacteria found in water quality	2019 Proposed Action Plan and Final Staff Report reflect these
		monitoring studies. The language in the second paragraph should be revised and state: "The	revisions.
		following source categories have potential to	
		discharge fecal waste to surface waters in the	
		Russian River Watershed."	
	SCWA-11	Appendix A, Table 1, for both Fecal Waste	The 2017 Draft Action Plan and Appendix A of the Draft Staff
		Categories: Percolation Pond and Irrigation	Report were revised to replace Geyserville CSD with Geyserville
		Discharges; and Sanitary Sewer Systems,	SZ. The 2019 Proposed Action Plan and Final Staff Report
		Geyserville CSD should be replaced with	reflect these revisions.
		Geyserville SZ.	

Commenter	No.	Summarized Comment	Agency Response
Russian River Keeper, Bob Legge	RRK-1	As Regional Water Board Staff have yet to determine natural background concentrations of fecal indicator bacteria that represent the narrative bacteria objective, we believe a study on natural background levels of bacteria must be conducted before this TMDL is adopted by the Board.	As suggested by the commenter, the Regional Board is conducting a reference study to establish the concentrations of <i>E. coli</i> and enterococci bacteria that are found within minimally disturbed streams in the North Coast Region. The study is not yet complete and cannot be used to support the proposed Russian River Watershed Pathogen TMDL Action Plan. However, by design, the proposed Action Plan is focused on the <i>recreational</i> beneficial use and does not establish wasteload and load allocations specific to ensuring no degradation of the natural bacteriological quality of the Russian River as might be the case if the reference study were available. Staff believe the analyses contained with the 2019 Final Staff Report are sufficient to support the Proposed Action Plan to protect the recreation beneficial use. Further, staff believe that the proposed program of implementation provides reasonable assurance of achieving the REC-1 bacteria objective, as well as controlling controllable sources of fecal waste to the Russian River Watershed, as required in the Basin Plan.
	RRK-2	The only monitoring considered is a Russian River Regional Monitoring Program (R3MP). Regional monitoring will not provide the data necessary to determine attainment of the proposed bacteria objectives due to the number of samples required to ensure compliance. The monitoring program should use Bacteroides in conjunction with an ambient surface water monitoring of bacteria objectives in order to quantify the contribution of all sources. The ambient monitoring program should provide monitoring data upstream, at, and downstream of areas where non-dairy livestock as well as dairy operations are located.	As stated in the 2017 Draft Staff Report and retained in the 2019 Final Staff Report, there are numerous monitoring resources applied to water quality monitoring in the Russian River watershed, which can be more efficiently marshalled to answer key questions such as: "Is the bacteriological quality of the Russian River improving?" Monitoring will continue to be required of individual dischargers. The Surface Water Ambient Monitoring Program will continue to collect data. Public health agencies will continue to collect data. Etc. The R3MP is a coordinating body, which hopes to more efficiently use the monitoring resources available in the watershed to expand the overall usability of the data collected.

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			Regarding Bacteroides, staff agree that including these metrics
			in a monitoring plan is important to interpreting the results of
			other FIB, though do not believe they are useful to quantifying
			contribution from sources.
			Regarding dairies, staff agree that ambient water quality
			monitoring should assess the degree to which significant fecal
			waste sources, including dairies, are successfully controlling
			discharge via upstream/downstream monitoring,
	RRK-3	The bacteria objectives allow for 32 in 1,000	Environmental public policy makers must balance a variety of
		swimmers to become ill with gastroenteritis	factors, including but not limited to scientific, technical, social,
		sicknesses. This risk is unacceptably high and is	and economic, when setting environmental policy. In August
		not protective of human health.	2018, the State Board adopted new statewide bacteria
			objectives, which supersede the recreation portion of the
			bacteria objectives in the Basin Plan for the North Coast Region.As the commenter notes, the new statewide bacteria objective
			is based on a calculated risk that 32 out of 1000 recreators will
			become ill with a bacteria-related gastrointestinal illness. But,
			to be clear, a risk of illness is not a certainty of illness.
			Individuals can reduce their personal risk of exposure to
			elevated concentrations of pathogens by refraining from
			ingesting river water.
			Staff believes that full implementation of the Proposed TMDL
			Action Plan will not only reduce the discharge of fecal waste to
			the Russian River but will improve the bacteriological quality of
			the Russian River to FIB concentrations well below the new
			statewide objective.
	RRK-4	The bacteria objectives will fail to protect	It is understood that water quality conditions fluctuate
		against exposures to viruses, bacteria, and	temporally and spatially due to a number of factors, both
		parasites on any given day. The prior criteria	natural and anthropogenic. Ambient water quality objectives
		adopted in 1986 included a "single sample	are set to protect beneficial uses, considering such factors as
		maximum," which was not to be exceeded.	seasonality to account for variability while still being protective

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		Protect against single day exposures by requiring	of the use. The primary tool at the Regional Board's disposal to
		a single sample maximum to not to be	attain water quality conditions is the control of waste
		exceeded. Please update the Pathogen TMDL	discharges through permits and other programs of
		and the Bacteria Water Quality Objective to	implementation. What these tools lack in spontaneity, they
		include a single sample maximum (as a suggestion E. coli of 235 MPN/100 ml is current	make up for with long term water quality improvements.
		threshold for posting advisory at Russian River	To protect recreators from potential harmful exposure to
		freshwater beaches).	pathogens on any given day, the appropriate regulatory tool is
			a beach closure. This is a tool that the public health agencies
			wield when monitoring public beaches and assessing public risk
			of exposure to pathogens and other contaminants.
			Staff believes both that 1) the bacteria objective in the Basin Plan, as modified by the new statewide bacteria objective for
			REC-1 protection, is adequate to protect the recreation
			beneficial use and 2) the public health agencies do an
			exceptional job of protecting public health on a day to day
			basis. The Regional Board regularly collaborates with the public
			health agencies to accomplish our respective missions and will
			continue to do so.
	RRK-5	A disproportional financial burden is being placed upon homeowners with OWTS, especially	All persons or entities identified as implementing parties in 2017 Draft Action Plan may bear some cost of complying with
		within the APMP boundaries. Why are these	the Action Plan, depending on the degree to which their
		sources not held to the same level of	specific facility is or threatens to discharge human or domestic
		accountability as homeowners with OWTS:	animal fecal waste. This is equally true for owners of leaking
		recreational freshwater beaches with no	OWTS as it is for owners/managers of leaking sanitary sewers,
		facilities, pet waste, MS4's, leaking public sewer	overflowing dairy ponds, or MS4s with significant pathogen
		collection systems, and livestock operations?	contributions, as examples. The costs may be in response to
		Other than reliance upon BMPs, no additional	direction by the Regional Water Board or the local agency, to
		enforceable requirements are currently placed	comply with new or existing requirements in waste discharge
		upon these other sources.	requirements, or to implement BMPs. These requirements are
			not specified in the Action Plan. Instead the Action Plan directs
L			staff to include such direction in the regulatory control

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			mechanisms associated with each of those other potential sources. Potential compliance costs for all sources is included in the section 12 (Cost Considerations) of the 2017 Draft Staff Report. This economic analysis was retained in the 2019 Final Staff Report. The commenter will note that there are potential high costs associated with fecal waste discharge control in all source categories.
			The requirements set forth in the 2017 Draft Action Plan for OWTS within the Advanced Protection Management Program (APMP) may simply appear disproportionate because the requirements are laid out in greater detail than for other sources. This appearance, however, is misleading. To explain, the need to provide detail for OWTS is a requirement of the statewide OWTS Policy, which directs Regional Boards to establish a management program for OWTS near impaired waterbodies in order to provide more water quality protection than are provided under Tier 1 or Tier 2 of the OWTS Policy. As a means of providing additional protection, the 2017 Draft Action Plan establishes requirements for OTWS that may result in compliance cost for owners of OWTS within the APMP boundary. These requirements are retained in the 2019 Proposed Action Plan, with only minor modification.
	RRK-6	Prioritize funding for those who are in low- income brackets and/or whom are primary residence owners. Funding priorities should not be given to those who own businesses within APMP areas (vacation rentals and other OWTS who have a higher water/wastewater discharge than single family owners).	The 2017 Draft Action Plan does not, nor does the 2019 Proposed Action Plan, establish a funding program for OWTS. Nor does the Action Plan establish a prioritized list of projects for public funding. Often, a specific source of public funds will identify the priorities of the fund. Or, if the counties establish a grant or low interest loan program to fund OWTS upgrade or replacement, the counties may identify funding priorities.

Commenter	No.	Summarized Comment	Agency Response
			For your information, the State's Small Community Grant (SCG) Fund prioritizes funding assistance for communities that qualify as Disadvantaged Communities (DACs). To qualify as a DAC the community must have a median household income [MHI] of less than 80 percent of the statewide MHI. Moreover, State law requires the State Water Board to give grant priority to projects that serve severely disadvantaged communities (SDACs), defined as communities with an MHI of less than 60 percent of the statewide MHI. To qualify for SCG funds, a project must be geared toward addressing primarily residential needs. Also, at least 50 percent of the dwellings or dwelling units must be the primary dwelling of permanent residents for a community or community area to qualify for SCG funds. Typically, permanent residents are those residing in the community at least six months out of the year. Section 12.3 of the 2017 Draft Staff Report, as retained in the 2019 Final Staff Report, describes potential sources of funding for small community projects, which may include addressing failing septic systems and outdated and undersized wastewater treatment plants. More information about the funding
			assistance programs administered by the State Water Board is available at State Water Board's Grants and Loans website at <u>https://www.waterboards.ca.gov/water_issues/programs/gran</u> <u>ts_loans/</u> .
	RRK-7	Targeted studies must be conducted on sources where little to no data currently exist in order that all sources be equitably addressed. Regional Water Board should use its regulatory authority by which all sources responsible for discharging fecal waste:	While Regional Water Board staff would agree that more data would provide a more complete picture of the impairment, the TMDL development process is not open-ended and is constrained by a budget. Staff applied its best professional judgment using the available information to identify potential sources of human and domestic animal fecal waste and to develop a program by which discharges of fecal material can be

Commenter	No.	Summarized Comment	Agency Response
		 Exclude all livestock from streams within 12 months Immediately evaluate agricultural practices that drain to watercourses where manure is used as soil enrichment. Evaluate all Ag practices where large numbers of farm workers may overwhelm waste collection facilities. Evaluate adoption and enforcement of pet waste ordinances and civil codes across the watershed. Evaluate all wastewater-holding ponds and enforce upon those that have the potential to leach bacteria to our waterways. Exercise your regulatory authority and address leaky sewage collection systems and overflows Ensure biosolids application do not add bacteria to streams Identify/assess Feral Cat colonies/populations and determine through Bacteroides monitoring how these influence bacteria loading All MS4's should be testing all SW outfalls where discharge is present once a week. Assess and evaluate bacterial loadings from Recreational Water Users 	controlled most effectively so as to bring all waterbodies in the watershed back into compliance with water quality objectives for bacteria. Most of the sources listed by the commenter are already regulated under state-issued permits and are relatively well-controlled. For these sources, compliance with existing permits combined with timely enforcement for noncompliance will provide compliance with the Action Plan. Other sources identified through the TMDL development process are not well- regulated or not regulated at all. For the sources in this category that are already permitted, new permit conditions or special actions are necessary to comply with the Action Plan. Regional Water Board staff has determined that some sources that are not currently regulated, such as the recreational water users Fecal Waste Source Category, require a different regulatory approach than issuance of a waste discharge permit. See response to Silge-2.
	RRK-8	The Draft Bacteria TMDL violates the anti- backsliding provisions of the Clean Water Act. If	The term anti-backsliding refers to statutory and regulatory provisions that prohibit the renewal, reissuance, or

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		the median Fecal Coliform concentration is	modification of an existing NPDES permit that contains effluent
		currently set at 50/100ml (R1 Basin Plan) then it	limitations, permit conditions, or standards less stringent than
		converts to an equivalent for E. coli which	those established in the previous permit. The action of
		equates to an estimated illness rate in Region 1	amending a Basin Plan is not subject to antibacksliding
		Freshwaters at 8 per 1,000 people. Adopting the	provisions in section 402(o) of the Clean Water Act.
		State Water Board's recommended Freshwater	
		Water Quality Objective for the TMDL equates	The State Board had at one point conducted a similar
		to illness rates of 32 per 1,000 recreationalists	calculation as shared by the commenter. But, the calculation
		(this is 4 times as many illnesses). If fact,	was based on erroneous assumptions and later retracted. As
		Appendix C, page D-178 of the State Water	explained in the State Board's final response to comments
		Resources Board Draft Bacteria Objectives	document ⁴ the numeric fecal coliform bacteria objective in the
		specifically states "Region 1's illness rate is 2	North Coast Basin Plan is indicative of fecal coliform levels
		times more stringent then the proposed illness	expected to be found in high quality coastal and mountain
		rate". The Draft TMDL adopts the less	waters. (California Department of Health Services
		protective standard of 32 illnesses per 1,000	Memorandum, 1990.) In other words, the fecal coliform
		swimmers, which will lead to such a standard	objective is not related to a specific risk of illness associated
		being incorporated into Permits. That would be	with primary contact recreation but was established to provide
		a direct violation of the anti-backsliding	protection against degradation.
		provisions because a standard of 32 illnesses	Consistent with the aviacial sector and in the state
		compared to 8 is clearly less stringent.	Consistent with the principles contained in the state
			and federal antidegradation policies, water quality
			is anticipated to be maintained in the North Coast region because North Coast Basin Plan also includes a
			narrative bacteria objective which states: "The
			bacteriological quality of waters of the North Coast
			Region shall not be degraded beyond natural background
			levels."
Bart Deamer	Deamer-1	Enterococci bacteria are not scientifically valid	Staff disagree with the commenter's assertion that enterococci
		REC-1 fecal indicator bacteria for the Russian	bacteria are not scientifically valid REC-1 fecal indicator bacteria
		River and should be eliminated as a numerical	for the Russian River. As is described in the 2017 Draft Staff
		target from the pending draft TMDL Action Plan.	Report and retained in the 2019 Final Staff Report, there is no

⁴ https://www.waterboards.ca.gov/bacterialobjectives/docs/bdmtg_aug7_bacteria_2nd_rtc_report_draft_proposed.pdf

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		Studies have shown that, while enterococci may	one fecal indicator bacteria, which accurately represents the
		be reliable (indeed superior) indicators when a	true likelihood that fecal waste is present in the water. Nor is
		human fecal point source predominates, there	there a single fecal indicator bacteria, which adequately
		are significant problems when applied to waters	captures the full risk of pathogen exposure that results from
		with diffuse sources and heavy vegetation like	the presence of fecal waste in the water. Both <i>E. coli</i> and
		the Russian River. These bacteria are widely	enterococci have their strengths and weaknesses as fecal
		distributed in a variety of environmental	indicator bacteria, each with the potential for environmental
		habitats, even when there is little or no input	influences. As such, both metrics are proposed for use as
		from human and/or animal fecal sources. This	numeric targets (E. coli for freshwaters and enterococci for
		highlights the potential for such populations to	saline waters).
		confound water quality monitoring, questioning	
		the value of enterococci bacteria as fecal	Further, the 2017 Draft Staff Report and 2019 Final Staff Report
		indicators of fecal waste.	describe that human-specific <i>Bacteroides</i> bacteria are found
			throughout the watershed, indicating the broad presence of
			fresh human fecal waste, which the enterococci measurement
			is also well designed to detect. As such, despite the noted
			confounding environmental factors associated with the
			enterococci metric, staff believe that measurement of
			enterococci provides an appropriate line of evidence regarding
			the presence of fecal waste and risk of pathogen exposure.
			With respect to impairment, staff only defined a HUC-12 as
			impaired/polluted if ambient water quality monitoring
			indicated multiple exceedances of the national criteria for
			enterococci in freshwater and there was a public health
			advisory.
	Deamer-2	The current Staff Report for the pending	As the commenter notes, the State Board rejected the use of
		statewide REC-1 water quality bacteria	enterococci as a statewide objective on the basis that in some
		standards decisively rejects enterococci as a	freshwaters, it can exist and multiply and create false positives
		fecal indicator bacteria for fresh waters. The	in samples. It instead adopted a statewide bacteria objective
		report states "Studies have found that while	based on <i>E. coli</i> , in part because a statewide objective must be
		enterococci acts as a good indicator in some	appropriate in all the diverse locations throughout the state. It
		freshwaters, it can exist and multiply in other	must be acknowledged, however, that no one fecal indicator

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		freshwaters and create false positives in	bacteria is perfect and even <i>E. coli</i> measurements can be
		samples."	influenced by environmental factors.
			In addition, the scientific peer review process associated with review of the Russian River Watershed Pathogen TMDL, as a geographically specific project, resulted in expert guidance that differs from the State Board's conclusions for statewide applicability. Staff have recommended an approach that implements the guidance of the scientific review process, considers the environmental influences on both enterococci <i>and E. coli</i> results, and increases the certainty that in combination the suite of fecal indicator bacteria results will accurately identify the presence of fecal waste and help to refine the program of implementation through adaptive management. Assessment of impairment/pollution was only made using enterococci bacteria results for freshwater when there were multiple exceedances of national criteria for enterococci in freshwater and public health advisories were posted to protect public health from potential exposure to pathogens.
	Deamer-3	The only scientific peer review conducted for the TMDL related to a 2015 draft Action Plan that did not contain an enterococci numerical goal— the draft reviewed by Professors Ashbolt and Holden contained numerical goals only for E. coli and Bacteroides.	As described in the 2015 Peer Review Draft Staff Report, concentrations of enterococci bacteria measured in numerous recreational beaches and streams in the Russian River Watershed demonstrated periodic exceedances of the REC-1 criteria recommended by the U.S. EPA (2012). Professor Nicholas Ashbolt, one of the scientific reviewers of this project, specifically supported use of the U.S. EPA 2012 enterococci bacteria criteria as an important line of evidence relative to public health protection. It was based on his expert recommendations that the 2015 Public Review Draft Staff Report and Action Plan included numeric targets, load

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			allocations, and waste load allocations for both enterococci and <i>E. coli</i> . Subsequent public review and action by the State Board has caused staff to remove the draft load allocations and waste load allocations based on enterococcus. But, the numeric targets for enterococcus for saline waters remain. See responses to Deamer-1 and Deamer-2.
Sarah Jansen	Jansen-1	Supports the types of plans and actions being proposed to clean up the river.	Comment noted.
Jay Kammen	Kammen-1	Agrees with the goals of the draft plan for new septic regulations but asks that the schedule for compliance is extended.	The 2019 Proposed Action Plan allows up to 15 years to correct OWTS, 20 years if there is a plan for a community solution.
Ken Sund	Sund-1	In favor of creating a stricter enforcement of the rules already in place for septic systems within 600-feet of waterways, especially commercial properties such as restaurants, hotels and Inns. Vacation rental housing are in it for profits and should be more forcefully regulated.	Comment noted.
Laurence Landa, Shannon and Steve Lyman	Landa-1 Lyman-1	The scientific evidence concerning the quality of the river water in the Fitch Mountain Area is not valid and the regulations are financially disproportionately burdensome.	The 2017 Draft Staff Report presents several lines of evidence that bacteria criteria are exceeded and the REC-1 beneficial use is impaired in tributaries in the Fitch Mountain area and in the Russian River directly downstream. Please note that a tributary draining off Fitch Mountain near Redwood Drive was placed on the Section 303(d) List of Impaired Waters in 2012, due to impairment of the REC-1 beneficial use. The 2017 Draft Staff Report describes concentrations of <i>E. coli</i> (Table 4.2) and enterococci (Table 4.3) bacteria measured at Veteran Memorial Beach, which indicate a potential risk of illness during water contact recreation. Human and bovine-specific Bacteroides bacteria were found in all samples collected at Veteran Memorial Beach, as well. Sonoma County Department of

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			Health Services have posted advisories for swimming at
			Veteran Memorial Beach on 4 days since 2013. The 2019 Staff
			Report continues to identify this area as impaired/polluted: it is
			within the Brooks Creek-Russian River HUC-12.
Stephen Mack	Mack-1	The TMDL program is a poor mechanism for	The OWTS Policy requires the establishment of an Advanced
		regulating OWTS. Having a moving target load is	Protection Management Program (APMP) for OWTS near
		difficult to understand and accept.	impaired waterbodies.
			The objective of the APMP is to identify failing OWTS, OWTS
			that are not authorized under the OWTS Policy, and OWTS that
			are routinely operated under conditions of hydraulic
			overloading, a condition that results in overflows and solids
			carry-over to and clogging of the effluent dispersal field. The
			APMP also includes a requirement for OWTS owners to obtain a
			basic operational inspection at least every five years. Corrective
			actions for OWTS in need of major repairs will be implemented
			by the local regulatory agency.
			The commenter also mentions the difficulty of accepting a
			moving target load, which staff assume is reference to the <i>E</i> .
			coli concentration limits established as waste load and load
			allocations. These concentration limits provide a way of
			measuring the true risk that elevated bacteria concentrations
			reflect the presence significant sources of fecal waste and not
			those that are simply temporary or insignificant.
	Mack-2	The public presentation mentioned protection	Thank you for the comment.
		of water quality for recreation purposes. The	
		Russian River is the drinking water source for hundreds of thousands of people and that	
		should be mentioned in every presentation and	
		in the Plan.	

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	Mack-3	This TMDL Action Plan is going after OWTS and there should be more direct investigation that shows they are a problem, and if they are a problem, further investigate the scope of the problem specific to failing OWTS. The Board should determine how many septic systems are failing and why before approving an implementation plan.	An investigation into the number of failing septic systems is addressed in section B.1.3.1.3 of the 2017 Draft Action Plan, which sets forth and describes the Regional Water Board's program to identify existing OWTS that are failing or in need of corrective action. This investigation is necessarily a component of the program of implementation. The 2019 Final Staff Report retains this language.
	Mack-4	The presenter at the public workshop stated that OWTS homeowners could self-certify that their systems are working. If that is the proposal, nearly everyone would do that and how would that advance anything?	The Regional Water Board OWTS Assessment Program will solicit information from OWTS owners within the APMP Boundary to determine whether their OWTS is currently failing or has a history of failures, whether the OWTS is a cesspool or other wastewater disposal system that is not authorized by the OWTS Policy, and whether the OWTS is operating beyond its treatment and disposal capacity. The initial outreach to OWTS owners will rely on an honest and accurate response from OWTS owners. Where warranted, the Regional Water Board can use any number of enforcement tools to compel compliance.
			As a fail-safe, the APMP requires all OWTS owners to obtain and submit to the Regional Water Board a basic operational inspection, performed by a qualified professional, for their OWTS within five years of the effective date of the TMDL Action Plan. The results of this inspection report will identify OWTS that do not comply with the APMP minimum requirements.
	Mack-5	The Implementation Plan is unclear about what happens if an OWTS fails and can't be replaced on site. The Plan implies that that owner would have to find an alternative, but who is going to develop the alternatives? You shouldn't have an	The 2017 Draft Action Plan and 2019 Action Plan establish provisions whereby owners of OWTS whose parcels do not support onsite wastewater disposal can participate in the establishment of a community or cluster wastewater system, connect to an existing municipal sanitary sewer system, or

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		implementation plan that doesn't have solutions	install another alternative OWTS that is permitted by the local
		that will work.	regulatory agency.
			Specifying a specific type of OWTS as an alternative would not be consistent with section 13360 of the Water Code, which prohibits the Regional Water Board from specifying "the design, location, type of construction, or particular manner in which compliance may be had" with requirements in permits or other orders of a regional board or the State Water Board.
	Mack-6	There needs to be a more precise definition of "top of bank" in the description of the APMP boundary. There are several ways to define a "top of bank" which could be hundreds of feet differences in places: bank full, ordinary high (or low) water line top of bank, some flood return period, summer flow shoreline or something else?	Thank you for your comment. The term "Top of Bank" is used to refer to the location where the land transitions from stream channel to floodplain or upslope area and is often the vertical point along a stream bank where an abrupt change in slope (from steeper to flatter) is evident. For streams in wider valleys it is the point where the stream can overflow the banks and spill into its floodplain. For steep and narrow valleys, it will generally be the same as the top of the slope that forms the bank.
	Mack-7	The 600-foot inclusion zone seems arbitrary regarding the Russian River. The high-density watershed defined as 50 parcels per square mile is not dense and there may not be any problem in those sub-watersheds.	The technical and regulatory basis in the OWTS Policy for the 600-ft distance is the California Department of Health Services' "Drinking Water Source Assessment and Protection Program" (January 1999) document that recommends 600 feet as the minimum distance for protection from microbial contaminants in porous media. The use of the 600-foot distance is consistent with State Water Board's recommended distance when it established its Tier 3 default zone of influence in the statewide OWTS Policy for OWTS near impaired water bodies.
			The selection of 50 parcels per square mile in the 2017 Draft Action Plan as defining a "high density" sub-watershed was

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			likewise a policy decision that reasonably conforms to the
			findings of the TMDL as regards the relationship of elevated
			fecal indicator bacteria and OWTS density. However, while the
			2019 Staff Report cites the influence of areas with high density
			OWTS on bacterial water quality of downstream surface
			waters, it does not use the 50 parcels per square mile threshold
			in establishing the APMP Boundary.
	Mack-8	It is unclear in the definition of the APMP	The geographic area of the APMP has been revised in the
		boundary whether the 600 feet distance applies	Action Plan as follows:
		to the OWTS, the closest edge of the parcel to the River, or something else. Larger parcels may be close to the River, but the OWTS may be more than 600 feet from surface water.	The Action Plan defines the Russian River Watershed APMP boundary ⁵ as consisting of parcels that are at least partially within 600 linear feet from the top of the bank in the horizontal (map) direction on either side of blueline steams depicted on the USGS 1:100,000 scale topographic map and parcels that are at least within 200 linear feet of the centerline of waterways derived using LIDAR datasets in the following HUC-12 subwatersheds:
			 Willow Creek-Russian River Dutch Bill Creek-Russian River Porter Creek-Russian River Green Valley Creek Lower Santa Rosa Creek Lower Laguna de Santa Rosa Upper Laguna de Santa Rosa West Slough-Dry Creek Brooks Creek-Russian River
			Any parcel with any portion of its area within the designated linear feet of the associated waterway is subject to requirements of the APMP. The 2017 Draft Staff Report and Action Plan were revised to clarify this point, as reflected in the 2019 Final Staff Report and Action Plan.

⁵ A map of the Russian River APMP Boundary is provided on the Regional Water Board website at <u>http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/russian_river/</u>

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			Under circumstances where a parcel is within the APMP Boundary, but the OWTS is more than 600 feet from the nearest water body, the APMP requires only that new and replacement OWTS comply with Tier 2 requirements of an approved LAMP, or Tier 1 if there is no approved LAMP. Where there OWTS is more than 200 feet from the nearest water body and the parcel is included in the APMP solely because of its proximity to a LIDAR-derived water body, replacement OWTS need only comply with Tier 2 requirements in an approved LAMP.
	Mack-9	To avoid inconstancies, the LAMPs need to be developed alongside and concurrently with the Action Plan.	Staff agrees that the LAMP must be consistent with the APMP. In the event that a LAMP is approved prior to the approval of the Action Plan, the LAMP must be revised by the local agency and reapproved by the Regional Water Board to ensure consistency with the APMP, to the extent required by the OWTS Policy and in accordance with the Memorandum of Understanding between the Regional Water Board, the County of Sonoma, and the Sonoma County Community Development Commission.
	Mack-10	Regional Water Board OWTS Assessment Program (Section V.B.1.3.1.3) was not well explained at the public workshop. How is this different from Section V.B.1.3.1.1?	Section V.B.1.3.1.1 of the 2017 Draft Action Plan set forth the requirement for a basic operational inspection, which is required every five years for all OWTS within the geographic area of the APMP. Based on the result of the five-year inspection, an OWTS may be identified as in need of corrective action pursuant to section V.B.1.3.1.2 or as determined by the local agency or Regional Water Board. Section V.B.1.3.1.3 of the 2017 Draft Action Plan described the program by which the Regional Water Board will notify owners of individual OWTS within the APMP area of the need to provide information to the Regional Water Board about their

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			OWTS in order for Regional Water Board staff to determine
			whether the individual OWTS complies with the Action Plan.
			These components of the APMP are unchanged in the 2019 Action Plan.
Jacob Anderson Stephen Martin	Anderson-1 Martin-2	For years the set-back from waters for OWTS was 100 feet. The TMDL and Action Plan do not provide the science to support the 600ft boundary for the APMP. First priority for inspections and upgrades should be given to those OWTS that are within 100 feet of a surface water.	The technical and regulatory basis in the OWTS Policy for the 600-ft distance is the California Department of Health Service's "Drinking Water Source Assessment and Protection Program" (January 1999) document that recommends 600 feet as the minimum distance for protection from microbial contaminants in porous media. See response to Mack-7. The 2017 Draft Action Plan was revised to require all OWTS within 600 feet of mapped water bodies (or 200 feet for replacement OWTS near small, intermittent water bodies) to include supplemental treatment and/or enhanced effluent dispersal systems unless the location of the new or replacement OWTS demonstrates adequate separation to groundwater and the OWTS design does not exceed maximum percolation and wastewater application rates for low threat OWTS.
Bob Young	Young-1	Sewer annexation to the Russian River Sanitation District is the only reasonable cost- effective long-term solution for these communities of Monte Rio, Villa Grande, and Northwood. Update the existing studies done under Supervisor Mike Reilly and PRMD. The Board of Supervisors appointed Sewer Committee endorsed agricultural re-use for tertiary treated wastewater from an expanded Russian River Sanitation District, which was	Regional Water Board staff is currently collaborating with the County of Sonoma in the preparation of a planning grant to evaluate projects that will address OWTS in these communities that are failing and/or have site constraints that limit options for individual onsite wastewater disposal. Annexation and connection of these communities to the Russian River County Sanitation District may be considered as part of the planning study funded by the planning grant.

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		accepted by the Sonoma County Board of Supervisors.	
Michele McDonell	McDonnel-1	The plans presented provided no model of staffing or what agencies will be responsible for staffing to accomplish what is proposed. This is a huge endeavor. The proposal should include the agencies responsible for this process along with staffing models that include the responsibilities between agencies and consistent implementation timelines.	The commenter is correct that successful implementation of the Action Plan will require an increase in staff at various agencies to accomplish the goals of the Plan. While staffing models are not included in the staff report, the Regional Board is, as the commenter recommends, assessing additional staffing needs as an internal workload management exercise. The Regional Water Board anticipates that other local agencies will also assess the additional staffing needs that will arise from adoption of the Action Plan.
Cynthia Strecker	Strecker-1	The use of composting toilets could open undeveloped hillside lands up to rampant development with disastrous consequences. Over-development could rapidly despoil the very environment that makes this place both a tourist magnet and a source of joy for those of us who live here.	Comment noted.
Linda Schmidt	Schmidt-1	used by campers or people on various watercraft with no toilet facilities, which results in human waste along the banks of the river. No effective solution to move the homeless	The 2017 Draft Staff Report includes a discussion about fecal waste from recreational water users that supports the assertion that recreators are sources of fecal contamination in surface waters of the Russian River Watershed. The 2019 Final Staff Report retains these findings.
		population from the banks of the river was addressed.	Relocation of homeless people is beyond the scope of this TMDL and Regional Water Board authority. However, the Regional Water Board has entered into a MOU with the County of Sonoma and the Sonoma County Community Development Commission to work cooperatively to address sources of fecal waste in the watershed originating from homeless encampments.

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	Schmidt-2	The technology for effective onsite systems is available for most parcels in the watershed. However, Sonoma County will not permit most of this technology.	Sonoma County, acting in its role as the local regulatory agency, is authorized to regulate OWTS in accordance with its approved Local Agency Management Program (LAMP). Recommendations for changes to the LAMP should be directed to the local agency. The 2017 Draft Action Plan does not mandate that a local agency approve OWTS that are not consistent with its LAMP. The 2019 Proposed Action Plan is consistent.
Tia Resleure	Resleure-1	If functionally sound and properly maintained cesspools are considered out of compliance, then composting toilets should be an accepted alternative for lots that would be challenged to add a leach line for compliance.	The 2017 Draft Action Plan did not preclude the use of composting toilets within the APMP, nor does the 2019 Proposed Action Plan. Also, see response to Schmidt-2.
Carly Hiebert	Hierbert-1	Concerned that OWTS upgrades may place financial burdens on many residents. There needs to affordable financing or a grant and assistance program. To impose major unaffordable upgrades with a lack of assistance over a short time frame would drive many households into financial hardship.	Regional Water Board staff acknowledges that the requirements imposed by the Action Plan on individual OWTS owners may be significant and will require coordination with homeowners and staff of the local agencies to ensure that the implementation process is as orderly as possible; and that it is both fair and ultimately effective. Regional Water Board staff are also participating in a pilot project with Sonoma County and representatives from the communities of Monte Rio and Villa Grande to pursue public funding to investigate community wastewater solutions that would enable OWTS owners to comply with APMP requirements.
			Overall, Regional Board staff believes that the APMP set forth in the Action Plan will result in OWTS improvement that will significantly improve water quality and return the impaired water bodies back to compliance with bacteria water quality objectives. However, there is no guarantee that any individual OWTS upgraded in response to the Action Plan will be exempt from future corrective action in the event of failure of the

Commenter	No.	Summarized Comment	Agency Response
			OWTS due to poor design, improper maintenance or intractable
			site conditions.
Elise Sokolay	Sokolay-1	The spread-out, hilly, and forested Russian River watershed is not appropriately served by an underground, centralized sewer system. Onsite wastewater management is the only viable option. I am retired and on a fixed income, will the county chase me out of my home, physically or financially?	It is well established that conventional sewer systems (gravity lines plus lift stations) present significant technical and operational challenges and can be prohibitively expensive for the conditions described in the comment. However, there are alternative sewer systems (pressure or vacuum systems, STEP systems, etc.) that can overcome difficult topographic conditions that would make installing gravity systems impractical.
			Regional Water Board staff agrees that onsite wastewater management may be a viable option for many parcels in the APMP.
			The objective of the Action Plan is to replace failing OWTS and OWTS that pose an elevated risk of contributing to the bacteria impairment with OWTS that are protective of water quality and public health. It is anticipated that, in most cases, either an allowable OWTS can be installed or another solution can be found that will bring the OWTS into compliance with the Action Plan.
	Sokolay-2	It is counter-intuitive that the high bacterial count in the summer would be coming from OWTS dispersing wastewater in dry conditions. It seems more likely that heavy beach use, combined with the closure of the river mouth all contribute to the high bacteria concentrations.	Consistent with the commenter's thinking, many (but not all) of the elevated fecal indicator bacteria measurements collected during summer months were associated with heavy beach use. These measurements are useful to assessing risk of exposure to pathogens to summer recreators and are sometimes the cause of beach closures. A study to assess the relationship of dense neighborhoods with OWTS to elevated fecal indicator bacteria concentrations downstream also confirmed a correlation. Though the discharge of fecal waste from leaking OWTS,

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Kyla Brooke	Brooke-1	The OWTS Policy should expressly reflect the Board's policy of making funds available for inspection, repair, and replacement of OWTS required by the Policy. Upon implementation, it is vital that homeowners are not penalized or forced from their homes for having insufficient capital to make costly inspections and improvements. During the workshop presentation, multiple funding and financial assistance solutions were discussed, but a formal, specific offering of secured financial assistance options has not come to fruition. There is no discussion about what would happen with systems that fail after the regulations go into effect, but before funding occurs.	overflowing OWTS, or OWTS with poor waste treatment (e.g., cesspools) may be greatest during storm events, there are three things to keep in mind. 1) As demonstrated by the land cover assessment (see Section 6.2 of the Staff Report), the developed non-sewered land cover type is associated with elevated concentrations of <i>E. coli</i> and enterococci during both wet and dry periods; 2) The Russian River REC-1 beneficial use is a year round beneficial use and not limited to busiest season; and 3) The discharge of fecal waste to a public waterway causes pollution, which the Regional Board is obligated to address. Regional Water Board staff is currently working with the County of Sonoma to obtain planning and construction grants to address OWTS in the communities of Villa Grande and Monte Rio, as a pilot project. The experience we gain through this effort will help inform similar efforts being considered for other communities in the Russian River Watershed that may be affected by the Action Plan. Also see response to RRK-6.
	Brooke-2	There is no supporting documentation in the public presentations that a Class 3 system functioning properly pollutes more than the engineered systems and pretreatment systems that will be required.	Site conditions ultimately will determine the type of OWTS that can be installed and still be protective of water quality and public health. For OWTS immediately proximate to impaired water bodies, where adequate soil conditions and depth to groundwater are not present, OWTS with supplemental treatment components and/or enhanced effluent dispersal systems are needed to mitigate for these site constraints.

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			According to the Sonoma County, Class III Non-conforming OWTS is a new or existing OWTS with a properly function septic tank with a minimum capacity of 810 gallons and some leaching field or seepage pit. A Class III OWTS may be undersized and not in compliance with setbacks of a code compliant system. By definition, a Class III Non-conforming OWTS will not provide more treatment or protection than a code conforming OWTS, much less for an OWTS that must provide additional treatment to mitigate for poor site conditions. No site-specific documentation is needed to demonstrate this fact.
	Brooke-3	The APMP map appears to be a blunt and inaccurate instrument. There is confusion on usage and the mapping appears inaccurate.	The commenter is correct that the APMP interactive map that was made available on the Regional Water Board website as a reference tool for the draft 2017 Action Plan was a blunt instrument and not everyone was able to use it successfully. For the 2019 Action Plan, the webpage will include a similar interactive map based on the new APMP area delineation for use as a reference tool. The webpage will also include a searchable Excel spreadsheet so members of the public can accurately determine whether their parcel is included in the APMP area. The parcel list will also be available for review in electronic and paper format at various public locations within the Russian River Watershed. These locations will include the offices at Permit Sonoma and the Mendocino County Department of Environmental Health and at public libraries.
Robert Clemens	Clemens-1	The TMDL is designed to protect recreational users, at a time of year when there are no recreational users. This gives the appearance of the Regional Board having created a rationale for a TMDL when there is no evidence that a	The TMDL assessment was undertaken to respond to the public health risk reflected in the 303(d) listing of many reaches of the Russian River Watershed as impaired due to pathogens. The TMDL assessment used many analytical tools and resulted in multiple lines of evidence that provided support to the

Commenter	No.	Summarized Comment	Agency Response
			River that cause pollution, periodically represent a risk to public
			health, and result in exceedance of water quality standards,
			including impairment of recreation. While it is true that the
			TMDL must address impacts to the recreational beneficial use,
			the Action Plan is also designed to address findings of fecal
			waste discharge that cause pollution. It is important to
			recognize that the recreational beneficial use is a year around
			use, even though summer swimming is the most popular of the
			uses. The Regional Board has a responsibility to ensure that the
			public waterways are safe for recreational use, regardless of
			the time of year. Finally, the land cover assessment (see Section
			6.2 of the Staff Report) resulted in the conclusion that the
			developed non-sewered land cover type is associated with
			elevated concentrations of <i>E. coli</i> and enterococcus during both
			dry and wet periods.
			See the response to Sokolay-2.
	Clemens-2	The Staff Report and Action Plan do not address	The 2017 Draft Staff Report describes the potential sources of
		storm water in non-sewered communities and	pathogens in surface waters in the Russian River Watershed
		rely on existing permits for sewered	and acknowledges that storm water discharges from both
		communities. Is this a meaningful clean-up of	urban and non-urban settings are a major mechanism whereby
		storm water?	pathogens are transported to surface waters. For municipal
			storm water runoff, the 2017 Draft Action Plan sets forth
			implementation actions for Phase I and Phase II MS4
			Permittees to control pathogens contained in runoff that enters
			into and discharges from the municipal storm sewer systems.
			Pathogens transported to surface waters from non-urban
			settings are controlled through implementation actions for
			nonpoint sources such as land discharges of wastewater,
			biosolids, agriculture recycled water, dairies, and non-dairy
			livestock, and OWTS. The 2019 Final Staff Report and Proposed
			Action Plan retain this language.

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	Clemens-3	The Staff Report does not show where samples were collected. The fact that sample locations are not identified does not improve citizen confidence in the Report and Action Plan.	The Staff Report attempts to strike a balance in which the large volume of data and information is summarized to provide readers a thorough understanding of the effort undertaken without being too overwhelming and long. By necessity, the details of individual monitoring studies are not included in the staff report but retained in technical memos and Quality Assurance Project Plans. The information the commenter is interested in can be found in the Quality Assurance Project Plans for each of the monitoring studies, which are available on the Regional Water Board website.
	Clemens-4	The Report and Action Plan indicate that the APMP will include all parcels within 600 feet of the Russian River and mapped tributaries. The basis for the 600-foot distance is not given in the Report, other than citation of the OTWS Policy. Given the requirements of the TMDL, this information should be more scientific than reference to the OWTS Policy.	See response to Mack-7.
Robert Clemens Dave Coleman Barbara Delonno	Clemens-5 Coleman-1 Delonno-1	The pathogen load in the river during the dry- weather season is predominately due to the river recreation itself as well as from a portion of the homeless population. There are few riverside toilets for swimmers and people recreating in canoes, kayaks or tubes. Homeless encampments are not provided toilets nor showers. The Action Plan refers only to the MOU with Sonoma County to address recreational and homeless sources. The Action Plan should provide more restroom facilities at every public property along the lower river, in addition to clear signage on where they are. The	Thank you for the comment. Staff agrees that additional public restrooms and signs will be an important part of addressing the pathogen issues associated with recreational use and the use of the river by homeless populations. Staff points out that the MOU is vital to the implementation of the Action Plan, particularly when addressing homeless encampments because of the difficult, multi-faceted nature of the problem. See also response to RHolmer-3.

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		Action Plan needs to provide the homeless populations with sanitary facilities.	
Dave Coleman	Coleman-2	The Action Plan should be modified to prioritize the expansion of, and improvements to, public sanitary facilities, over all other actions identified.	Staff agrees with the importance and efficacy of expanding public sanitary facilities to address issues associated with recreational use and use of the river by homeless populations and believes that this implementation action is readily achievable. See also responses to Colman-1.
	Coleman-3	There does not seem to be much explanation of the 600-foot set-back distance used in the Action Plan. The Action Plan should be modified to reduce the geographical extent of the APMP to a realistic area: 100 feet would be a realistic value to use to safeguard river water quality during the dry season.	See response to Mack-7 and Anderson-1 Martin-2.
	Coleman-4	From December through February in normal years, there is virtually zero recreation in the river. Certainly, there are exceptions when there are river users who will continue to canoe and kayak the river and maybe a die-hard swimmer or two. Recreational use of the river is almost entirely limited to the dry weather season. The vast majority of pollution from OWTS occurs during storm water runoff. OWTS use in the watershed is NOT contributing in any significant way to the pathogen load in the river during the summer months.	See response to Sokolay-2 and Clemens-1.

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Barbara	Delonno-2	We need to get these homes on sewers so that	Centralized collection, treatment, and disposal of domestic
Delonno		the waste can be carried away from the river	wastewater as a means of compliance with the Action Plan is a
		and away from the flood plain for treatment.	potential option for small parcels near existing sanitary sewers.
		Much of the housing lots are too small for a legal	Other options may exist, for small parcels outside the feasible
		leach field. Septic systems next to the river are	reach of an existing sewer system and for parcels with severe
		not a good idea for the long term.	constraints, including small community OWTS, cluster OWTS, or other alternative OWTS.
Bill Fethon	Fethon-1	Low income residents cannot afford to upgrade	Regarding cost of compliance, see response to Hiebert-1, and
		their septic systems. There are many innovative treatment systems out there that are relatively	RHolmer-1.
		cheap. The technology is there. But they are not	Regarding types of OWTS allowed by the local agency, see
		allowed. There are hundreds of lots that are	response to Schmidt-2
		unbuildable because they do not qualify for	
		septic systems.	Regarding centralized sewer option for "unbuildable" lots, see response to Delonno-2.
	Fethon-2	Sewer systems are the answer. There are many	See response to Delonno-2 regarding centralized sewer option.
		areas, like Argonne Way, Rio Dell, Champs De	
		Lese, and Rio Vista, that could be hooked up in	
		this way to the sewer main that already exists in	
		River Road. The huge demand for municipal	
		bonds could fund innovative sewer systems.	
Wanda Holmer	WHolmer-1	Create a system to collect water runoff to be	See response to Clemens-5, Coleman-1, Delonno-1, and
		recycled without the need for a treatment plant.	Delonno-2.
Richard Holmer	RHolmer-1	The Action Plan puts an unprecedented burden	Regional Water Board staff acknowledges that the
		onto individual homeowners to address issues	requirements imposed by the Action Plan on individual OWTS
		with OWTS, so it is imperative to develop and	owners may be significant and will require coordination with
		maintain a collaborative relationship with the	homeowners and staff of the local agencies to ensure that the
		residents of the Russian River. In order to elicit	implementation process is as orderly as possible; and that it is
		cooperation from homeowners, there needs to	both fair and ultimately effective. Regional Water Board staff
		be a process to facilitate permitting and	are also participating in a pilot project with Sonoma County and

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		approval of upgrades to OWTS, provide financial support to affected homeowners and provide some reassurance that the corrections to the OWTS will be adequate for the foreseeable	representatives from the communities of Monte Rio and Villa Grande to pursue public funding to investigate community wastewater solutions that would enable OWTS owners to comply with APMP requirements.
		future.	Overall, Regional Board staff believes that the APMP set forth in the Action Plan will result in OWTS improvement that will significantly improve water quality and return the impaired water bodies back to compliance with bacteria water quality objectives. However, there is no guarantee that any individual OWTS upgraded in response to the Action Plan will be exempt from future corrective action in the event of failure of the OWTS due to poor design, improper maintenance or intractable site conditions.
	RHolmer-2	The implementation phase of the TMDL Action Plan should contain the following key elements: 1) The OWTS permitting process needs to be as simple and straight forward as possible. 2) The types of OWTS that will be permitted should be clearly defined with respect to their applicability and limitations. 3) There needs to be financing in the form of grants and loans to homeowners. 4) PRMD should direct homeowners to competent septic system contractors who can assist homeowners with the permitting process. 5) The proposed operational inspections of OWTS within the APMP area should be made as inexpensive as possible. 6) The WQCB should support the formation of an onsite wastewater management district, similar to the program at The Sea Ranch.	Also see response to RRK-1. These comments are noted, and the proposed key elements that are within the Regional Water Board's authority to address in the APMP will be incorporated into the APMP to the extent practicable. With respect to Element No. 2, the Regional Water Board is prohibited from specifying method and manner of compliance with requirements established by the regional or state water board (Cal. Wat. Code § 13360). See also response to RRK-1.

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	RHolmer-3	The Action Plan presents vaguely worded statement that the WQCB will participate in outreach and education programs for the homeless. The Cities and the County should be required to provide toilet facilities, bathing facilities and garbage service at the homeless camps along the river and in the urban areas until such time as programs are in place to relocate homeless persons to more suitable living accommodations.	Thank you for the comment. Staff agrees with the commenter's general solution outline. To be clear, the Implementation Actions for the homeless encampment source specified in Table 1 of the Action Plan reflect the agreement set forth in a Memorandum of Understanding between Sonoma County and the Regional Water Board. The MOU acknowledges the complexity of addressing homelessness and the water quality impacts of homeless encampments. The implementation strategy also reflects the constraints on the Regional Water Board's authority to mandate that local agencies provide amenities for homeless persons. (See response to Clemens-5, Coleman-1, Delonno-1). Rather the implementing agencies have agreed to work cooperatively to support existing local homelessness programs and projects that reduce inputs of fecal waste to surface waters from homeless encampments. Staff anticipate this work to be adaptive in nature, with refinements to the approach as appropriate, and a beginning understanding consistent with the commenter's recommendations.
	RHolmer-4	Existing WDRs are ineffective since the Staff Report shows that substantial contamination is still occurring. The Cities and the County should be required to capture and treat all urban runoff with specific WDRs for each treatment facility.	Regional Water Board staff agrees that the presence of illness- causing pathogens, as demonstrated by the measurement of fecal indicator bacteria in water samples, indicate that existing pollution control measures have been inadequate to achieve the bacteria water quality objectives, protect the REC-1 beneficial use of multiple HUC-12 subwatersheds within the Russian River Watershed. The Action plan describes a multi- prong strategy to improve existing regulatory control mechanisms and establish implementation actions for other discharges of fecal waste that have not been regulated in the past.

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			The TMDL Action Plan (Table 1) requires entities enrolled under the Phase I and Phase II MS4 permits to implement an approved Pathogen Reduction Plan. The capture and treatment of all urban runoff is a potential action that could be implemented by MS4 permit enrollee in accordance with the Pathogen Reduction Plan to comply with the permit requirement and, consequently, the Action Plan. The MS4's system wide pathogen assessment will identify the significant source of pathogen contamination and propose appropriate BMPs.
	RHolmer-5	Recreational bathing areas should be required to provide appropriate toilet facilities, garbage facilities and shower facilities. Swimmers should be required to shower before entering the river just as they are required to do so at a public swimming pool. Infants should be required to have waterproof diapers disposed of in an onsite garbage container.	Comments noted. See also response to RHolmer-3.
	RHolmer-6	The WQCB needs to provide more stringent oversight of maintenance of POTWs to prevent sanitary sewer overflows and leakage. POTWs should be required to demonstrate that they have an effective program of repair and replacement of aging components in both the treatment plant and in the collection system.	Regional Water Board staff agrees that proper operation and maintenance (O&M) of wastewater treatment plants and collection system is critical to ensure compliance with effluent limitations and to prevent spills and overflows that could impact water quality. Accordingly, discharge permits for POTWs in the North Coast Region typically include and enforceable requirement to properly operation and maintain the treatment system and to keep an updated O&M manual. The statewide General Order for Sanitary Sewer Systems, under which coverage is required for all public entities with sewer systems greater than a mile in length, requires enrollees to prepare and implement a Sewer System Management Plan (SSMP) to

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			minimize sanitary sewer overflows reaching surface waters. All
			POTWs in the Russian River Watershed are enrolled under this
			statewide General Order.
	RHolmer-7	It simply does not make sense to clean up	The waste load allocations and load allocations in the 2019
		bacteria in the river to facilitate recreational	Action Plan are designed to control the discharge of fecal waste
		uses when these same uses are threatened or	for the purpose of protecting the public from exposure to
		prevented by toxins from cyanobacteria. The	pathogens. Yet, fecal waste is also a source of phosphorus
		WQCB should address the phosphorous	pollution that in combination with other environmental factors
		pollution concurrently with the current action	contribute to biostimulatory conditions. Staff anticipate that
		plan for bacteria.	the implementation measures described in the Action Plan will
			help reduce phosphorus sources with concomitant benefits with respect to algae growth, including cyanobacteria.
	RHolmer-8	The bacterial contamination resulting from the	The commenter raises an important point regarding the
	KIIOIIIIEI-8	attempts to maintain the mouth of the river in a	multiple management objectives at play in the Russian River.
		closed condition was well demonstrated this	The Sonoma County Water Agency mechanically breaches the
		summer when Monte Rio beach was closed. The	sand bar that forms at the mouth of the Russian River in the
		Sonoma County Water Agency should be	spring/summer months if there is threat of flooding of low-lying
		required to open the mouth of the river when	housing in the estuary. However, the National Marine Fisheries
		water quality objectives are exceeded.	Service (NMFS) has concluded that the freshwater lagoon
			conditions that form behind the sand bar are beneficial to the
			growth of young steelhead and should be preserved, as
			possible. The TMDL analyses did not specifically include
			assessment of the degree to which the presence of the sand
			bar and freshwater lagoon at the mouth of the river affect
			upstream ambient water quality conditions. But, the
			Environmental Impact Report for NMFS's Biological Opinion
			concluded that there might be water quality impacts that are
			not mitigatable. Further assessment of the effects of these
			phenomena on water quality conditions and implementation of the pathogen TMDL is warranted. The 2019 Staff Report was
			updated to add language to Chapter 10 Watershed Monitoring
			referring to the water quality consequences of the mouth

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			closing/freshwater lagoon when highlighting the need for
			special studies and adaptive management.
Roy J. Kniffen, Jr.	Kniffen-1	Are all of the sources of <i>E.coli</i> bacteria in the Russian River being targeted at the same level as the home owners with OWTS? You need a better way to communicate what you are doing to all parties involved. It seems like all of the problems are caused by the homeowners with OWTS and we will have to bear all of the costs to fix the river.	Based on the monitoring data, Regional Water Board staff has concluded that the presence of fecal indicator bacteria at concentrations that often exceed water quality standards in the Russian River Watershed is a result of multiple sources of human and domestic animal fecal waste entering surface waters, not just discharges from OWTS. The Land Cover Study (see Section 6.2 of the Staff Report) confirms that agricultural lands, developed non-sewered lands and developed sewered lands are all associated with fecal waste discharge during all or some months of the year. Consequently, the Action Plan identifies actions that multiple entities must undertake to control and eliminate fecal waste discharges. OWTS are only one of the many potential sources requiring control.
	Kniffen-2	Using the enterococci bacteria is not a valid an approach, because the target values may be too hard to achieve.	The 2019 Proposed TMDL Action Plan has excluded enterococci as a numeric target.
	Kniffen-3	Table 6.3 Sanitary Sewer Overflows, page 6-17. At the end of the table, it reports that only 35% of the sewer overflows reached surface water, but if you compare the total spilled, 1,834,000 to the amount that reached surface waters, 1,729,925. It shows that 94.3% of the sewer spills reached the surface water!	Thank you for your careful reading of the staff report. The arithmetic error in Table 6.3 of the 2017 Draft Staff Report has been corrected. The 2019 Final Staff Report reflects this revision.
	Kniffen-4	In Chapter 6 you incorrectly conclude that Sanitary Sewer System don't have much concern for exfiltration because the holding ponds tend to be at surface water level, but the Guerneville	Section 6.3.1.4 of the Staff Report states that "(w)here conditions and other factors are present that could result in exfiltration of untreated wastewater from sanitary sewer system, sanitary sewers systems are potential sources of

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		facility is 50-100 feet above the river providing enough head pressure that it could leak into the river.	pathogens, measured as fecal indicator bacteria to surfaces waters in the Russian River Watershed." This statement acknowledges that exfiltration from sanitary sewer systems have the potential to reach surface water via migration through soil.
			Regional Water Board staff suggests there is no revision to the staff report or action plan required, but recognition of the potential for exfiltration from the Russian River CSD's sanitary sewer system will be considered when assessing the District's compliance with the general WDR for sanitary sewer systems and should be considered by the District in its Sewer System Management Plan.
	Kniffen-5	There needs to be a way to use compostable toilets and/or incinerator toilets in the solution.	Composting toilets and incinerating toilets are identified in Table 8-1 of the OWTS Policy's Final Substitute Environmental Document as supplemental treatment systems that would be allowable under Tier 2. There is nothing in the Action Plan that would prohibit the use of these two supplemental treatment systems as a means of compliance with the APMP minimum requirements, as long as they are allowed in an approved Local Area Management Plan (LAMP).
	Kniffen-6	If as the report states that Class 3 septic systems would be acceptable, then Permit Sonoma must allow for that.	The APMP, set forth in the 2019 Action Plan, is the minimum management program for OWTS near impaired water bodies in the Russian River Watershed. The OWTS Policy states that a local agency is authorized to implement the APMP in conjunction with its approved LAMP. The County of Sonoma has indicated that it will ensure that its LAMP is consistent with the APMP. See also response to Brooke-2.
Odd Fellow Recreation Club, James Koenig	OFRC-1	Where the Water Board has proposed stringent requirements for initial inspection of OWTS, and for further implementation by local agencies, no such similar measures are being required to	The OWTS Policy states that an APMP is the minimum required management program for OWTS near impaired waterbodies. As explained in section.B.1.1 of the 2017 Draft Action Plan and retained in the 2019 Proposed Action Plan, standards and

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		address the impacts of recreation and homelessness. Rather, the Water Board has called for the continuation of "ongoing" strategies to address impacts from these factors, including creating MOUs with the counties and "developing and distributing educational and outreach materials." These actions are very non-prescriptive and non-committal compared with the onerous nature of the proposed OWTS implementation standards.	requirements for OWTS are established either in a TMDL program of implementation, as special provisions established by a local agency, or as default requirements in section 10 (Tier 3) of the OWTS Policy. Since the local agencies have not elected to propose establishment of special provisions for OWTS in their draft Local Agency Management Programs (LAMPs), the Regional Water Board has done so in the Action Plan. Standards and requirements for OWTS are necessarily more stringent for OWTS that have a higher risk of contributing to a water quality impairment.
			The proposed implementation actions for recreational use sources and homeless persons are less prescriptive than those proposed for OWTS primarily because the sources of the fecal waste material (recreators and homeless persons) are less controllable through the usual regulatory tools employed by the Regional Water Board. Instead, consistent with comments on the 2015 draft Action Plan, Regional Water Board staff concluded that a collaborative approach, as described in the Memorandum of Understanding (MOU) with the County of Sonoma, would be the most effective approach to address these sources throughout the Watershed.
Russian River Watershed Protection Committee, Brenda Adelman	RRWPC-1	The proposed Occidental County Sanitation District to Airport-Larkfield-Wikiup Sanitation Zone Wastewater Transport Project will truck raw sewage along narrow windy roads with an opportunity for a spill.	Comment noted. The potential for spills resulting from this proposed activity was discussed at length as part of the Sonoma County Water Agency's Initial Study/Negative Declaration for the Occidental County Sanitation District Wastewater Transport Compliance Project.
	RRWPC-2	While the TMDL asserts that the goal of this effort is to protect human health during summer recreation, if septic systems and treatment plants are going to fail, it regularly occurs in winter during heavy rainfall. The TMDL should	See responses to CSR-2, Sokolay-2 and Clemens-1.

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		allow for temporary suspension of REC-1 objectives due to high flows would be limited to periods when specific conditions exist that are both unsafe for REC-1 uses and when the objective is temporarily not attainable.	
	RRWPC-3	The proposed Bacteria Statewide Objective only recommends use of E. coli bacteria in freshwater streams. The Russian River TMDL states that enterococcus and Bacteroides would add another measure of safety because there are occasional false positives with E. coli and enterococcus. EPA has stated that there are false positives for enterococcus and didn't mention false positives for E. coli. Too many types of monitoring in this case may add confusion rather than provide certainty.	The 2017 Draft Staff Report proposed to establish the TMDL, wasteload and load allocations based only on E. coli bacteria concentrations. Enterococci bacteria were proposed to be measured only as a margin of safety, which is required by the statute. Use of multiple lines of evidence are valuable to confirming all findings. Professor Nicholas Ashbolt, one of the scientific reviewers of this project, specifically supported use of the U.S. EPA 2012 enterococci bacteria criteria as an important line of evidence relative to public health protection. To be clear, Bacteroides bacteria were used as a line-of-evidence of fecal pollution in the TMDL assessment and may be included as a line of evidence in the monitoring plan still to be developed. But, there are no numeric targets or load/waste load allocations proposed for Bacteroides. The 2019 Final Staff Report and Proposed Action Plan are consistent with this description. Also see response to Deamer-1.
	RRWPC-4	Page 6-49 of the TMDL Plan has a list of fecal waste sources. You should add others, such as sediment deposits containing pathogens, accidental or intentional dumping of items in the river, such as probable spills of raw sewage being trucked long distances under dangerous winter conditions, flooding, mouth closures that	Implementation of the Russian River Watershed Pathogen TMDL Action Plan will be adaptively managed, as are all TMDLs. If implementation of the source control measures identified in the Staff Report and Action Plan for significant sources of fecal waste fail to resolve the pathogen problem, then staff will look to other less significant sources and consider revision of the Action Plan.

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		back up flow, low flow planned to sustain mouth closures, etc. Another issue is discarded garbage in the river.	Regarding the closure of the mouth and development of a freshwater lagoon, please see response to RHolmer-8.
	RRWPC-5	We are glad that when it comes up for NPDES Permit review, they will be required by the new permit to monitor bacteria at the point of discharge. What is known about pathogen regrowth in the ponds?	Pathogen regrowth in municipal wastewater holding ponds is discussed in section 6.3.1.2 (Source Analysis) of the 2017 Draft Staff Report and is retained in the 2019 Final Staff Report. See also response CSR-1 and TOW-1.
	RRWPC-6	There is no quantification or discussion of pathogens that attach to sediments and travel to lower river from other locations, and then become roiled up during summer recreation activities. What are the chances for bacterial exceedances resulting from Santa Rosa's discharges last winter?	Regional Water Board staff reviewed relevant scientific literature on the surface water survivability of the fecal indicator bacteria that are used to assess impairment of recreation beneficial uses. Studies have shown survival of E. coli and enterococci bacteria in soil, manure and water. This review was published in the memorandum "Survivability of fecal indicator bacteria in surface waters" dated August 1, 2014 and posted on the Regional Water Board website (Butkus, 2014). The studies suggest that E. coli can persist in terrestrial and aquatic habitats for varying periods of time depending on environmental conditions. As such, there does exist the potential that <i>E. coli</i> and enterococci bacteria contributing to exceedances may originate from river sediment sources. The survivability of any pathogens that may be discharged to the water is relatively unknown. Bacteroides bacteria, however, are present in the gut of their host animal and when present in the water column indicate the discharge of fresh fecal waste from the associated host. Human-source and bovine-source Bacteroides bacteria were found at locations all throughout the watershed, indicating the widespread presence of human and bovine fecal waste.

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	RRWPC-7	The Phylochip Report states that in summer,	It is unknown if stream order or flow contribute to higher
		tributaries have more bacterial pollution than	levels. However, the Phylochip Report also concluded that a
		the main stem Russian River. Do small stream	human fecal signal was detected at Johnson's Beach and Monte
		size and low flow levels contribute to pathogen	Rio Beach and indicated possible risk from pathogenic
		pollution?	Staphylococcus at these locations. Recreational beach use was also associated with a human fecal signal.
	RRWPC-8	Apart from Monte Rio, there hardly seems to be a bacterial pollution problem. How can this describe a water body in need of a pathogen TMDL?	Chapter 4 of the Staff Report summarizes the evidence of fecal waste pollution in the Russian River and its tributaries. The following are the HUC-12 subwatersheds with evidence of impairment/pollution based on exceedances of statewide bacteria objectives or exceedance of national criteria for enterococci in freshwater and beach closures: West Slough-Dry Creek, Oat Valley Creek-Russian River, Gill Creek-Russian River, Brooks Creek-Russian River, Upper Laguna de Santa Rosa, Lower Laguna de Santa Rosa, Upper Santa Rosa Creek, Lower Santa Rosa Creek, Green Valley Creek, Porter Creek-Russian River, Dutch Bill Creek-Russian River, and Willow Creek-Russian River.
	RRWPC-9	If the E. coli seldom shows up in areas, how can you deduce that pathogens are present based on Bacteroides? How can Bacteroides be a deciding factor in circumstances where existing pathogens do not exceed limits?	Most strains of fecal indicator bacteria, like <i>E. coli</i> , do not directly pose a health risk to swimmers and those recreating in the water; but, indicator bacteria often co-occur with human pathogens and are easier to measure than the actual pathogens that may pose the risk of illness. <i>Bacteroides</i> bacteria are especially useful as a tool to identify fecal waste from specific animal sources. <i>Bacteroides</i> bacteria were used in the TMDL studies to help interpret high levels of fecal indicator bacteria that may be from animal fecal waste sources or from natural non-fecal sources. However, <i>Bacteroides</i> bacteria are not being proposed as the targets in the proposed TMDL.
	RRWPC-10	How can you assume waste comes from septic systems since there are so many sources of human caused pathogens?	Chapter 6 of the 2017 Draft Staff Report evaluates potential sources of fecal waste discharge, including OWTS and all other identified sources, in the surface waters of Russian River

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			Watershed. Chapter 9 of the 2017 Draft Staff Report describes a Program of Implementation, including OWTS, and all other identified sources, to be incorporated into a proposed Action Plan. The 2017 Draft Action Plan provides for a prohibition of discharges of controllable fecal material from humans or from domestic animals to waters of the state, which includes OWTS and all other identified sources. The 2019 Final Staff Report and Proposed Action Plan retain this discussion and provisions, respectively.
	RRWPC-11	The Regional Water Board has not attempted to address any of the contents of a TMDL during the Subregional Reclamation System's Reclamation Permit renewal process. Bacteria was not an issue at the time.	The 2017 Draft Action Plan was revised to require entities that discharge treated municipal wastewater from storage ponds to surface water to meet effluent limitations derived from the <i>E. coli</i> Waste Load Allocation where it is determined during an entity's next NPDES permit renewal that the discharge has the reasonable potential to cause or contribute to an exceedance of the <i>E. coli</i> Waste Load Allocation or the Fecal Waste Discharge Prohibition. The 2019 Proposed Action Plan reflects these revisions. See also responses CSR-1 and TOW-1.
	RRWPC-12	How does the TMDL program work for something like summer landscape irrigation? If bacteria regrowth can occur at the storage pond, it can probably also occur in the pipes that travel to the landscape area.	Recycled water used for landscape irrigation may contain bacteria resulting from regrowth in storage ponds, contamination of storage ponds by animals, or incidentally from contact with recycled water pipes. However, the amount of recycled water escaping the recycled water use area and reaching surface water is insignificant compared to all the other sources identified in the staff report and proposed Action Plan.
Orenco Systems, Joseph Soulia	OS-1	Our experience with various jurisdictions that successful OWTS programs require the following characteristics: Required Operations and Maintenance Program, In-Field performance verification, and Trained Installers and Service Providers. We have observed that operating	Although proper operation and maintenance of an OWTS is critical to its successful long-term operation, the Action Plan does not require that owners of OWTS enroll in a third-party operation and maintenance program. However, to receive public funding for upgrades to an existing OWTS, the OWTS owner may need to demonstrate that the upgraded OWTS is

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		permits, with a financial incentive to renew O&M contracts, are a successful method of ensuring O&M is being performed. In addition, some form of annual reporting (e.g. reported turbidity, DO, odor) offers additional incentive for homeowners to comply with O&M requirements. A simple requirement in the regulations that both Service Providers and Installers can demonstrate that they have sufficient training to install and/or operate a particular treatment system, with certification provided by the manufacturer, will help ensure systems are performing as expected as soon as they are installed.	being properly operated and maintained. Under those circumstances, an individual may want to consider the cost- effectiveness of entering into a third-party agreement to provide O&M of their OWTS.
Robert A. Swift	Swift-1	A 200 feet APMP designated boundary, rather than 600 feet, would provide adequate distance to meet the public health and water quality objectives for the Russian River and lessen the impact to both the regulated community and the regulator by reducing the area subject to the APMP.	See response to Mack-7 and Anderson-1 Martin-2, and Treinen-4. In the 2019 Action Plan, a distance of 200 feet from the water body to the parcel is used to designate the APMP boundary for small, intermittent water bodies (as identified by the Sonoma County LIDAR dataset).
	Swift-2	Support requiring supplemental treatment and/or an enhanced effluent dispersal system for any OWTS within 100 feet of the top of bank within the APMP boundary for new OWTS, replacement OWTS, or OWTS subject to a major repair.	Comment noted.
	Swift-3	Concerned that the County currently does not have adequate resources for proper	Comment noted. See also response to McDonnel-1.

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		implementation of the Tier 2 Local Agency	
		Management Program (LAMP).	
	Swift-4	Septic tanks are such an important component	Comment noted.
		of an OWTS, the County should assume	
		responsibility for the septic tank pumper	
		program.	
	Swift-5	In acknowledgment of pre-existing conditions, a	See response to ORORR-5. In acknowledgment that some
		'Best Practicable' (in substantial compliance, to	parcels may have no feasible, affordable options for corrective
		the greatest extent Practicable), rather than a	actions that are consistent with the requirements set forth in
		'Best Available' solution should be applied.	the APMP, the APMP was revised to allow the local agency, in
			accordance with an approved LAMP, to authorized repairs and
			replacement of OWTS in substantial conformance with the
			OWTS Policy and the APMP on a case-by-case basis when it can
			be determined that an OWTS requiring corrective action cannot
			comply and the OWTS owner can demonstrate financial
			hardship, that financial assistance is not available, and
			reasonable alternatives to comply are not available.
Lee O. Torr, IV	Torr-1	County of Sonoma's regulations identify a	The minimum requirements of the APMP supersede existing
		"Waiver Prohibition Zone" in the Monte Rio	local requirements for existing, new and replacement OWTS
		area. Does the proposed Basin Plan amendment	within the APMP area set forth in the Action Plan. However,
		replace these regulations, or will the Board of	Sonoma County, as a local agency, may implement in its
		Supervisors need to un-adopt them?	approved LAMP standards for OWTS that are more protective
			of public health or the environment than those contained in the
			APMP.
	Torr-2	Septic tank pumpers are not REHS or engineers,	Section B.1.3.1 of the 2017 Draft Action Plan states that a basic
		nor have training or certification to develop a	operational inspection must be conducted by a "qualified
		"Finding report". Self-certification from the	professional." The local agency has the latitude under the
		property owner is anticipated. This is effectively	OWTS Policy to modify the definition of "qualified profession,"
		a license to pollute.	subject to Regional Water Board approval, provided that
			modifying the definition would not result in the failure of the
			local program to meet the objectives of the Policy, which is to

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			protect water quality and public health. The 2019 Proposed
			Action Plan retains these provisions.
	Torr-3	Are sewered areas excluded from the Action Plan?	No. In areas served by municipal sanitary sewer systems, public entities operating the sanitary sewer systems are required under the 2017 Draft Action Plan as retained in the 2019 Proposed Action Plan to comply with the statewide General Order of Sanitary Sewer Systems. OWTS providing waste disposal for individuals parcels located in sewered areas within the APMP must comply with requirements in the APMP, as set forth in the 2017 Draft Action Plan and retained in the 2019 Proposed Action Plan.
			In addition, sewered areas in the Russian River Watershed generally coincide with boundaries of the Phase I and Phase II MS4 NPDES permits and coincide with areas where recycled water is applied for urban irrigation projects. Permittees associated with these fecal waste sources are also assigned implementation actions described in Table 1 of the 2017 Draft Action Plan as retained in the 2019 Proposed Action Plan
	Torr-4	Is the advanced treatment proposed in the APMP equivalent to primary, secondary, or tertiary wastewater treatment? What is the equivalent of the Title 22 aspect of tertiary treated effluent as to those systems for advanced treatment of wastewater envisioned under the proposed plan? Are NSF 350 and NSF 350-1 advanced treatment systems equivalent to tertiary treated effluent?	The APMP requires that, under certain conditions, owners of existing, new and replacement OWTS and OWTS subject to major repair must include supplemental treatment components and/or enhanced effluent dispersal systems. The term "supplemental treatment" is defined in the OWTS Policy and in footnote 4 of the 2017 Draft Action Plan as retained in the 2019 Proposed Action Plan and may include treatment systems that meet performance standards in title 22 of the California Code of Regulations for recycled water, or other standards established by NSF, at the discretion of the local agency. Table 8-1 of the OWTS Policy's Final Substitute Environmental Document also identifies supplemental treatment and effluent dispersal systems that would be allowable under Tier 2.

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	Torr-5	During the public meeting, it was stated that	The 2017 Draft Action Plan required, at a minimum, a visual
		there will be no inspection of leach lines, only	inspection of the effluent dispersal area to observe obvious
		the septic tank. How can this be a complete	signs of leachfield malfunction. The 2019 Proposed Action Plan
		inspection when many homes do not have leach	retains these provisions. A competent site evaluator should be
		lines nor distribution access ports for any	able to determine whether a leachfield is malfunctioning or
		inspection?	conditions exist (e.g., solids carryover from the septic tank) that
			would predict a malfunctioning leachfield.
	Torr-6	Why was the requirement for individual	The concept of individuals installing monitoring wells to
		monitoring wells changed to using only area	demonstrate a properly functioning OWTS was discussed during
		monitoring wells in the most recent proposal?	public meetings but was not proposed in either the 2015 or
			2017 drafts of the TMDL Action Plan. Such a requirement is not
			included in the 2019 Proposed Action Plan.
	Torr-7	The stream Hyporheic Zone is not defined in the	Although a discussion of the Hyporheic Zone is not discussed in
		plan.	the 2017 Draft Action Plan or Staff Report, Regional Water
			Board staff acknowledges that the Hyporheic Zone is an
			important interface between surface water and groundwater
			and has the potential to be adversely impacted by failing OWTS.
			It is anticipated that improvements in the design and operation
			of OWTS within the watershed will improve bacterial water
			quality of the groundwater, surface water, and the subsurface
			flow between the two. The 2019 Final Staff Report and
			Proposed Action Plan remain silent on this topic.
	Torr-8	The Interactive Map that identifies parcels	A map and list of properties within the APMP boundary will be
		within the APMP boundary is deficient. The	made available for public review.
		MOU states that a list of properties in the APMP	
		will be generated for consideration prior to	
		adoption of the plan.	
	Taun O		
	Torr-9	Consideration a 200 feet setback from surface	See response to Mack-7 and Anderson-1
		waters instead of the 600 foot for the APMP.	Martin-2, Treinen-4, and Swift-1.
			1

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	Torr-10	Are parcels close to Dutch Bill Creek included in the APMP?	Yes.
	Torr-11	Why are stream reaches not listed as impaired under Section 303(d) included in the APMP?	The APMP boundary includes all stream reaches within HUC-12 subwatersheds where ambient water quality data results indicate exceedance of statewide bacteria objectives above the 303(d) listing criteria thresholds or exceedance of national criteria for enterococci in freshwater and beach closures.
	Torr-12	I requested, in writing, notification of the CEQA and SED process for this TMDL Action Plan, the public was not notified of the MOU process with the County of Sonoma and were not given the	The Regional Water Board publicly noticed and made the SED and TMDL Action Plan available for public comment on August 7, 2017.
		opportunity to comment on the MOU.	The MOU is not an independent project subject to a specific project-level CEQA analysis; rather, the development and signing of the MOU is one component of the TMDL Action Plan, the project for which the Regional Water Board has prepared the environmental analysis contained in the SED. While members of the public are not signatories to the MOU, and there is not a specific public process required for the development of a MOU, the Regional Water Board welcomes and accepts comments on all components of the TMDL Action Plan, including those that address the MOU as an implementation measure.
Mike Treinen	Treinen-1	Unless an adequate and sustainable funding source is obtained, low and middle-income homeowners may be faced with unaffordable costs for system replacement or upgrade. Some owners may be faced with the need to sell their home.	See response to Brooke-1.
	Treinen-2	The true scope of the project is not known. There is no information provided on the number	Regional Water Board staff acknowledges that the number of existing OWTS that require corrective action is not currently known. However, a reasonable estimate should be available

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		of septic systems in the APMP that will need replacement or upgrading.	once the Regional Water Board's OWTS Assessment Program is completed.
	Treinen-3	It is not clear how government formational and long-term staffing will be found for this program.	Comment noted. There are obvious local and state agency staffing needs associated with implementation of the proposed Action Plan. The Regional Water Board is currently investigating opportunities for funding additional staff positions. See also response to McDonnel-1.
	Treinen-4	The 600-foot buffer for the APMP was apparently derived from studies on the movement of hazardous chemicals through the	See response to Mack-7 and Anderson-1 Martin-2 regarding the 600-ft distance delineating the APMP boundary.
		soil to wells. Comparing hazardous chemical movement in soils cannot be compared to the movement of wastewater bacteria and viruses. The literature generally suggests that 1-3 feet of reasonable soil removes most biological pathogens. Reduce the 600-foot boundary to 200 feet with possible enhanced treatment for those problem systems close to the river or major tributaries or set up a tier procedure which starts first in that zone or in known problem areas.	In recognition that adequate separation to groundwater, reasonable soil, and appropriate design can be protective of water quality, the 2017 Draft Action Plan was revised to allow new or replacement OWTS within 200 feet of a water body when the OWTS location demonstrates a minimum of 3 feet separation to groundwater and the OWTS design does not exceed maximum percolation and wastewater application rates for low threat OWTS. Where the OWTS is greater than 200 feet but less than 600 feet from a water body, the minimum groundwater separation is 2 feet. See also Mack-8 and Swift-1 for alternative requirements in the 2019 Action Plan for OWTS near small, intermittent water bodies.
Town of Windsor, Toni Bertolero	TOW-1	As a consequence of evaluating an incomplete data set, the Town believes a disproportionate amount of source allocation has been placed on open-air recycled water storage ponds. The samples presented in the Staff Report are outdated. Why weren't the most recent data collected by the Town included in the Source Analysis that show lower E. coli bacteria levels?	The 2019 Proposed Action Plan was revised to require entities that discharge treated municipal wastewater from storage ponds to surface water to meet effluent limitations derived from the <i>E. coli</i> Waste Load Allocation where it is determined during an entity's next NPDES permit renewal that the discharge has the reasonable potential to cause or contribute to an exceedance of the <i>E. coli</i> Waste Load Allocation or the Fecal Waste Discharge Prohibition. The most recent data will

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			be evaluated on a case by case basis at the time of permit renewal.
	TOW-2	The wildlife found surrounding the Town's recycled water storage ponds are not domestic animals. Enforcing bacteria limitations on wildlife contributions is unreasonable. Item 2 of the Action Plan purpose states setting limits on "controllable sources," and footnote 6 clearly does not identify wildlife as a controllable source.	The 2019 Action Plan was revised; as part of its application for renewal of its NPDES permit, the Town will be required to provide information for the Regional Water Board to determine whether discharges from the Town's wastewater holding ponds have the reasonable potential to cause or contribute to an exceedance of bacteria water quality objectives. In the event that <i>E. coli</i> is detected in the effluent discharged from the wastewater holding ponds to surface waters, the Town will have the opportunity to demonstrate that the sources of <i>E. coli</i> in the effluent are uncontrollable and do not impair the REC-1 beneficial use.
	TOW-3	The Town has serious concerns with the accuracy of the cost estimates to retreat its recycled water holding pond water and MS4 permittee compliance. The Town believes they would be significantly greater than is estimated. This plan will put unnecessary financial burden on the Town to retreat water that has not been proven to even be a true source of pathogen	The cost for treating recycled wastewater containing in open- air storage ponds will be site specific, depending on the quality of the stored water, they type of disinfection system used, the target effluent quality, other factors related to local construction costs, and other variable that are too speculative to predict for the purpose of the economic analysis for the TMDL.
		impairment.	Table 12-2 of the 2017 Staff Report was revised to include additional information for capital cost estimates for UV disinfection systems. As an example, based on this cost estimate, the capital costs and annual O&M costs for a UV disinfection system to treat a flow of 10 MGD would be about \$1 million and \$182,000, respectively.
			The 2017 Action Plan was also revised to require a reasonable potential analysis (RPA) for NPDES Permittees discharging treated municipal wastewater from holding ponds to surface water to determine whether water quality-based effluent

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			limitations to implement the bacteria WLAs are necessary. In advance of the RPA process for the Town's NPDES permit renewal, the Town may provide information it deems relevant to the question whether its wastewater storage ponds are a source of pathogens.
	TOW-4	The Action Plan directly contradicts VI.C.2.b of the Town's NPDES Permit, which requires the Town to operate the water reclamation plant in a manner that maximizes reclamation and reduces discharge to Mark West Creek. The Action Plan encourages a direct river discharge of tertiary treated wastewater effluent because it would eliminate the need to resample and potentially retreat water prior to discharge.	Regional Water Board staff acknowledges the apparent contradiction. However, the primary objective of the proposed Action Plan is to control sources of human and domestic animal fecal waste to surface waters in the Watershed in compliance with bacterial water quality objectives and the protection of public health. If the Town's discharge, whether it be a direct discharge or a discharge from its recycled water storage ponds, is contributing to an exceedance of water quality objectives, the Town must implement actions to reduce or eliminate its contribution in accordance with the Action Plan. In any case, the Regional Board is committed to working with the Town to evaluate the extent of the issue and develop a sensible solution that is protective of water quality.
Sonoma County Board of Supervisors, Shirlee Zane	SCBOS-1	The draft TMDL uses the terms "supplement treatment" and "enhanced effluent dispersal system." Instances where soil profiles are adequate, "supplemental treatment" is not necessary. The County requests the language in the draft TMDL emphasize adequate treatment as compared to supplemental treatment.	See response to Treinen-4.

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	SCBOS-2	The County requests a refinement of the priorities based on the system's treatment ability, system components, and the age and the condition of those system components. Instead of addressing all systems within a given area, the County recommends addressing cesspools first, as a group, then systems that include a septic tank, but which otherwise do not meet minimum requirements second.	The 2019 Action Plan describes the program of implementation of the Regional Water Board's OWTS Assessment Program. It states that the assessment will be based on OWTS type (e.g., cesspool), age, threat to water quality, and other factors. Owners of OWTS meeting the conditions that require corrective action will be notified and directed to contact the local agency to initiate corrective action to bring the OWTS into compliance with the minimum requirements of the Action Plan and any other applicable local requirements. The local agency, once contacted by an OWTS owner whose OWTS requires corrective action, may prioritize corrective actions as it sees fit, as long as the corrective action schedule meets all requirements imposed by the Regional Water Board.
	SCBOS-3	The County requests the Regional Water Board provide a time schedule that allows a reasonable time frame for the individual and/or community to apply for and obtain grant and/or loan funding to implement the TMDL	The 2019 Action Plan established a final compliance date of 15 years after the effective date of the Action Plan for owners of OWTS to complete needed corrective actions. An additional five years, for a total of 20 years after the effective date of the Action Plan, to obtain funding and implement a community solution.
	SCBOS-4	Sonoma County strongly recommends that grants be available for construction of appropriate design activities and implementation of solutions.	In accordance with the MOU between the Regional Water Board, the County of Sonoma, and Sonoma County CDC, the Regional Water Board will work with County staff to seek and obtain funding for planning and construction of projects that implement the Action Plan. See also response to RHolmer-1.
Jennifer Wertz	Wertz-1	Can 319(h) grant funding be used to assist homeless with needs like creating more shelter space in Sonoma County, substance abuse treatment and mental health facility beds, create more transitional and low-income housing, to relocate the people currently along the Russian River?	The commenter raises an interesting question. It is generally the case that 319(h) funds are approved for nonpoint source projects that have a direct bearing on water pollution prevention or control. Considering the context of the question, a proposal to build public restroom/shower facilities may more easily fall within the 319(g) grant guidelines. Staff will confer

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			with the 319(h) program managers at U.S. EPA and the State
			Water Board on this question.
Tia Resleure	Resleure-2	There is no distance scale on the interactive map	The APMP maps have been updated based on the new
		that has white exclusion areas that seem to be	definition of the APMP boundary contained in the 2019 Staff
		within 60 Oft of the riverbank and orange areas in the APMP that are much further than 600ft.	Report and TMDL Action Plan.
Phill Grosse	Grosse-1	Request that the 600' distance for the APMP be reduced as that distance seems excessive.	See response to Mack-7, Anderson-1 Martin-2, and Treinen-4, regarding the 600-ft distance delineating the APMP boundary.
	Grosse-2	The Action Plan should accommodate the elderly or light users that occupy their cabins just a few days a year.	The objective of the program of implementation for OWTS is to identify OWTS near impaired water bodies that need corrective action because they are 1) failing, 2) a cesspool or other unauthorized system, or 3) hydraulically overloaded. The level of occupancy is irrelevant with respect to threshold 1 and 2 above. But, a lightly used dwelling should not exceed threshold 3. In addition, just because an existing home is currently occupied only during the summer does not guarantee that its occupancy will be limited to the summer in the future. See also response to SCBOS-3.
	Grosse-3	Please include a far greater public outreach in your implementation plans.	Comment noted.
	Grosse-4	Merely identifying possible financial resources is not enough. The plan should establish an office to help with financial assistance. Citizens are not familiar with applying for grants or navigating government funding sources and will need someone to help.	See response to Brooke-1 and RHolmer-1.
Don and	Dana-1	The science used to justify the proposed action	Staff disagree on the commenters' assertions regarding the
Jeanne Dana		plan is weak; the measures recommended are	quality of the science associated with the TMDL assessment.

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		heavy handed; and the consequences of the	While we acknowledge that the studies conducted to support
		proposed action plan have not been adequately	the development of the Action Plan do not answer every
		vetted in the community.	question, they provide multiple lines of evidence to support the
			basic conclusion that there is a pervasive problem of human
			and domestic animal fecal waste entering the Russian River
			Watershed, which causes pollution and sometimes impairs
			recreational use of the river and its tributaries. Similarly, there
			are multiple potential sources of human and animal fecal waste
			that are currently either uncontrolled or poorly controlled. The
			recommended approach is to require individuals and entities
			responsible for those potential sources with a risk of discharge
			to the Russian River or its tributaries, to investigate whether
			their controls are adequate to protect water quality. If they are
			not, they will need upgrade. If they provide the necessary
			protections, then there is no upgrade necessary. In addition,
			since 2015 there have been numerous public workshops, many
			smaller stakeholder meetings, and regular
			communications/collaboration with local agencies regarding outreach and education. Finally, the Regional Board's
			interaction with stakeholders will continue—and grow as
			implementation of the Action Plan commences. We anticipate
			ever evolving communication with affected parties as time goes
			on.
Pat	Abercrombie-1	Conduct outreach/educational sessions in the	Comment noted. Regional Water Board staff has already
Abercrombie		affected neighborhoods. Describe the proposed	participated in the establishment of a Community Advisory
		changes in language that can be understood.	Group that will be providing input into possible wastewater
			disposal solutions for the communities of Monte Rio and Villa
			Grande and will assist with the development of planning and
			construction grant proposals. Regional Water Board staff
			anticipate that similar efforts in other affected communities will be proposed.

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	Abercrombie-2	Reduce the threshold for inclusion in the APMP to 200 feet from the riverbank instead of 600 feet.	See response to Mack-7 and Anderson-1 Martin-2, and Treinen- 4 regarding the 600-foot distance delineating the APMP boundary. The 600-foot distance to define the APMP boundary was retained in the 2019 Action Plan for waterways depicted on the USGS 1:100,00 scale topographic map. For smaller tributaries, the APMP boundary was set at 200 linear feet from the centerline of waterways derived using LIDAR datasets in the 11 HUC12 subwatersheds where there is evidence of pollution from OWTS.
	Abercrombie-3	Exempt homes only occupied in the summer (low groundwater) months from the requirement for supplemental treatment components and/or improved effluent dispersal methods.	See response to Grosse-2.
	Abercrombie-4	Establish reasonable criteria for certification of septic tank pumpers as "inspectors" such that property owners who comply with the 5-year tank pumping cycle can be given a certificate of compliance at the time of pumping at a reasonable expense.	See response to Torr-2.
Pat Abercrombie Dennis O'Rourke	Abercrombie-5 O'Rourke-1	Establish a provision for "hardship" cases where lot size or configuration present severe challenges to meeting standards.	The Action Plan does not explicitly establish a provision for financial hardship. However, In acknowledgment that some parcels may have no feasible, affordable options for corrective actions that are consistent with the requirements set forth in the APMP, the APMP was revised to allow the local agency, in accordance with an approved LAMP, to authorized repairs and replacement of OWTS in substantial conformance with the OWTS Policy and the APMP on a case-by-case basis when it can be determined that an OWTS requiring corrective action cannot

Commenter	No.	Summarized Comment	Agency Response
			comply and the OWTS owner can demonstrate financial hardship, that financial assistance is not available, and reasonable alternatives to comply are not available.
Bob Flasher	Flasher-1	Water quality in the Russian River could be greatly improved by taking the following actions: 1) restoring the former higher flows, and banning motorboats, 2) creating significant buffer zones between animal farms and vineyards and the River to reduce nitrogen contributions to the River, and 3) moving homeless encampments to locations with outhouses.	The TMDL Action Plan established a Fecal Waste Discharge Prohibition and sets forth implementation actions to control sources of pathogens that contribute to the surface water impairment. Higher summer flows may result in an improvement in Russian River water quality by flushing harmful bacteria and other pathogens out the mouth of the River; however, this action is beyond the scope of this TMDL and this action alone will not reduce the fecal waste discharges that are causing the pathogen impairment. Likewise, banning motorized watercraft may reduce disturbance of river sediment and the sediment's associated pathogen load, but this prohibition would again not address sources of the impairment. Establishing vegetated buffers adjacent to agricultural operations and animal exclusion zones for dairy and livestock operations are recommended implementation actions for these fecal waste sources. See responses to Schmidt-1, Clemens-5/Coleman-1/Delonno-1,
			RHolmer-3, OFRC-1, Wertz-1, which address implementation actions for homeless encampments.
Lois Lebovich	Lebovich-1	There are homeless encampments on land belonging to the Sonoma County Regional Parks in Guerneville. They should be held accountable for the pollution.	See responses to Schmidt-1, Clemens-5/Coleman-1/Delonno-1, RHolmer-3, OFRC-1, Wertz-1, which address implementation actions for homeless encampments.
Dewey Watson	Watson-1	Waiver of permit fees or inspection fees would be a good incentive for voluntary compliance with OWTS system upgrades.	Comment noted. However, should an OWTS require coverage under state-issued waste discharge permit, a fee schedule is established by the California Code of Regulations (Title 23, Div.

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			3, Chap. 9), and a waiver of permit fees is not within the authority of the Regional Water Board. The application of local fees and waivers of local fees is also not within the authority of the Regional Water Board.
			Where an inspection is required to comply with the TMDL Action Plan, it must be performed by a qualified professional and the cost of the inspection is the obligation of the OWTS owner. There is no mechanism for the Regional Water Board to waive the cost of that service.
Theodore Walker	Walker-1	The sanitary sewer systems are a significant contributor to bacterial contamination. These systems pipes leak (exfiltrate) throughout the entire calendar year. Disagrees that compliance with requirements for proper operation and maintenance of public sanitary systems set forth in the Sanitary Sewer Systems General Order may help or eliminate exfiltration over time. The action plan should require inspection of all sewer manholes, sanitary sewer pump station, and vertical siphons to assure the elements are properly functioning.	The TMDL Action Plan identifies untreated sewage from Sanitary Sewer Systems as a potential source of bacterial contamination; however, a requirement in the TMDL Action Plan for inspection of sanitary sewer system infrastructure is unnecessary. The Statewide General Order for Sanitary Sewer Systems already requires all enrollees (i.e., all public agencies that own or operate sanitary sewer systems greater than one mile in length) to develop and implement a Sewer System Management Plan (SSMP). The SSMP must include program elements to demonstrate that the enrollee is properly operating and maintaining its sanitary sewer system. One element of the O&M program is regularly scheduled inspections of manholes, sewer pipes, and other sewer infrastructure, a system for ranking the condition of infrastructure assets condition, and a system for scheduling asset rehabilitation.
	Walker-2	The action plan should require that the sewer laterals be inspected and demonstrated to be properly functioning by a licensed plumber at the time of a building permit application.	Private laterals as a potential source of fecal waste discharges to surface water is discussed in section 6.3.1.3 of the Staff Report. The Regional Water Board continues to encourage local municipalities and sewer districts to adopt inspection requirements for private sewer laterals that are in service.

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	Walker-3	Suggest that the APMP is based on a 200-foot distance is a sufficient setback for REC-1 pathogen reduction plan. This is twice the distance that state health and counties require for a private water well.	See response to Mack-7 and Anderson-1 Martin-2 regarding the 600-ft distance delineating the APMP boundary. See also response to Treinen-4, Mack-8, and Swift-1.
	Walker-4	There should be an exclusion from the APMP requirements if an owner can demonstrate that the OWTS is greater than the required distance from a stream.	The 2017 Action Plan was revised to allow OWTS that are within the APMP but further than 600 feet from the water body to meet local agency minimum requirements for siting, design, and construction of new and replacement OWTS. However, all OWTS within the APMP are still required to obtain a basic operational inspection at least every 5 years.
	Walker-5	Allow the design size of replacement OWTS at the actual flow of the metered water flow instead of by the number of bedrooms described in the OWTS policy. The cities of Santa Rosa and Windsor, the residential flow average per residence is 160-180 gallons per day, greater than the 120 gallons per bedroom used for the policy.	 The Action Plan does not specify criteria for sizing replacement OWTS. Instead it relies on the local agencies' existing OWTS programs, which, based on past performance, is adequately protective of water quality. Both Sonoma and Mendocino counties have established 150 gpd per bedroom as the design criterion for single-family homes. To base the design of a replacement OWTS on a wastewater flow rate at a specific point in time would require that the oversight agency monitor and regulate the number of people using an individual OWTS from the time of replacement onward. This is impractical. Local agencies have chosen number of bedrooms, which is a design criterion over which the local agency, through its building code approval process, has greater control.
	Walker-6	The Regional Water Board should create Onsite Wastewater Management Districts within the boundaries of the TMDL and require that the septic tank pumper program, permitting and	The formation and development of local agencies is beyond the regulatory purview of the Regional Water Board. In California, the state legislature mandates that the orderly formation of local agencies is implemented by Local Agency Formation

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		inspection program for OWTS be located in the same County department.	Commissions (LAFCOs). More information about LAFCOs can be found at the LAFCO website at <u>https://calafco.org/</u> . The local agency can also establish County Service Areas (CSAs) or dependent special districts to deliver services to communities in unincorporated areas. More information about special districts can be found on the California Special Districts Association (CSDA) website at <u>http://www.csda.net/special- districts/</u> .
			During review of the draft LAMP for Sonoma County, Regional Water Board staff recommended the consolidation of the septic tank pumper regulatory program into one department. Requiring that consolidation is beyond the regulatory authority of the Regional Water Board.
OWTS Residents of the Russian River, Jim Christian Dan Fein Bart Deamer Candace Healy Dave Henderson Kyla Brooke Richard Holmer Sarah Yardley Pam Rianda	ORORR-1	The Staff Report (page 9-10) should be revised to NOT assume that all OWTS's within 600 feet of a waterbody are contaminating it.	Section 9 of the 2017 Staff Report was revised to explain why the 600-foot zone of influence was selected to establish the boundary of the APMP. The 2019 Staff Report does not include the text stating that OWTS within 600 feet of a water body were assumed to be contributing wastewater effluent to that water body.
	ORORR-2	The APMP boundary should be reduced to consider mostly high use recreational waters and only OWTS that are within the boundary.	Thank you for the suggestion. The REC-1 beneficial use is designated for all water within the Russian River Watershed. The Regional Water Board is obligated to implement programs to attain and maintain water quality conditions suitable for recreation, even outside of popular recreational beaches.

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			Similarly, the APMP boundary is drawn through all HUC-12 subwatersheds for which there is evidence of bacterial pollution reasonably attributable in part to OWTS, to ensure failing, unauthorized or hydraulically overloaded OWTS are corrected to protect public health.
	ORORR-3	Establish reasonable standards for qualifying septic tank pumpers to conduct the basic operational inspections, using a simple checklist at the time of pump-out.	See response to Torr-2.
	ORORR-4	Clarify that certain items of a "basic operational inspection" of OWTS only apply if already installed. Additional components are not newly required, if not previously installed.	The 2017 Action Plan has been revised to clarify that a basic operational inspection shall include only evaluations of existing components of an OWTS. That clarification should resolve any misinterpretation of this section that suggests that new components are newly required. The 2019 Proposed Action Plan reflects these revisions.
	ORORR-5	Adopt "pragmatic cost-effective" criteria for replacements and upgrades. The requirements should allow seepage pits and de-emphasize supplemental treatment components, except in extraordinary circumstances.	The Action Plan for replacement OWTS relies on minimum Tier 3 requirements of the OWTS Policy and the local agencies' existing OWTS programs, which, based on past performance, are adequately protective of water quality. Certain site conditions, like soil that lacks filtration capacity and an inadequate depth of unsaturated soil, may necessitate the use of supplemental treatment components. The 2019 Draft Action Plan, establishes the conditions for which supplemental treatment is required for a new or replacement OWTS: 1) if the OWTS is within 600 feet of any stream and the location of the replacement OWTS does not have adequate separation to groundwater, reasonable soil characteristics to further treat waste, and appropriate design criteria, 2) where capacity of the replacement OWTS is expanded to treat and dispose of a wastewater flow greater that that the OWTS being

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connenter			replaced, and 3) where the projected flow of the OWTS is 3,500 gpd or greater. Staff believes that supplemental treatment and/or an enhanced effluent dispersal system is necessary to protect water quality and achieve the bacteria WLA. The 2017 Action Plan did not prohibit seepage pits, but according to section 10.6.8 of the statewide OWTS Policy, seepage pits require a minimum separation to groundwater of ten feet in Tier 3 areas, a requirement that is unattainable by many of OWTS in the APMP area. The 2019 Proposed Action Plan, likewise, does not prohibit seepage pits but requires that seepage pits whose dispersal areas have less than 10 feet of separation to groundwater provide supplemental treatment components to remove pathogens, but that this requirement may be waived for replacement OWTS if other options are infeasible.
	ORORR-6	Agencies should promulgate criteria for sizing of OWTS to facilitate generally applicable minimum system requirements on permit applications without the need for site-specific engineering.	Regional Water Board staff determined that the draft LAMPs for Sonoma County and Mendocino County contain appropriate criteria to guide the design of replacement OWTS for the variable site conditions existing within the geographic area of the APMP. The 2017 Draft Action Plan established conditions for which supplemental treatment or enhanced effluent disposal systems are needed to mitigate for poor site conditions and protect water quality and public health. This approach allows the local agency to be constrained only by its OWTS program for the type of replacement OWTS that it will authorize and by the minimum standards for OWTS in an APMP specified in the OWTS Policy (§10.6). The 2019 Proposed Action Plan retains these provisions.
	ORORR-7	The RWQCB should lead efforts to fund needed community-based systems and allow OWTS to	The first action of the Regional Board following adoption of the Action Plan will be to survey the status of OWTS within the

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		be replaced/upgraded on a cost-effective basis in-line with costs in surrounding sewered communities.	APMP by requesting information from OWTS owners, on a prioritized schedule. Following that survey, the Regional Board will have a more comprehensive picture of where substandard or failing OWTS are located and the overall upgrade need. Staff recognize that some of these OWTS may be difficult to upgrade and costly, due to site conditions.
			Sonoma and Mendocino counties are the lead agencies on reviewing and permitting replacement OWTS and will be critical to assisting OWTS owners in identifying approvable site solutions. They also will be the lead public agencies for preparing funding applications and dispensing allocated public funds for projects to address failing OWTS in the Russian River Watershed, as necessary. Regional Water Board staff will remain an active participant in the counties' efforts to identify and apply for public funding for this purpose.
			Similarly, the Regional Water Board will remain an active participant in discussion regarding community-based solutions, such as is currently occurring in Monte Rio and Villa Grande.
			Also, see response to Abercrombie-1, Delonno-2, and Mack-5.
	ORORR-8	Regional Water Board staff concluded in a 2013 memorandum that that <i>E. coli</i> criteria were met in the Russian River.	The memorandum applied the Statistical Rollback Method to estimate the percent reductions needed in <i>E. coli</i> bacteria concentrations to meet standards. The approach was only used to estimate the percent reductions that may be required to meet objectives. The Statistical Rollback Method does not recognize variability associated with limited samples sizes in a 30-day period. As such, all available data were pooled for the Statistical Rollback Method evaluation. When the data are pooled, the overall distribution met the criteria in the mainstem Russian River sampling locations, and the method could not be applied. However, this method does not evaluate the actual exceedance rate based on a 30-day averaging period for the

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			geometric mean and STV criteria. When the data are applied using a rolling 6 week average to calculate the geomean (as required by the statewide objective), the results show exceedances of the <i>E. coli</i> criteria at multiple locations in the Russian River mainstem and tributaries, as reported in Chapter 4 of the 2019 Staff Report.
	ORORR-9	The APMP boundary is set at a 1,200-foot distance centered on tributaries, including many minor non-REC-1 or REC-2 creeks and streams.	See responses to Resleure-2 and Abercrombie-2. See response to Mack-7 and Anderson-1, Martin-2, and Treinen-4 regarding the distances delineating the APMP boundary established in the 2019 Action Plan. The APMP boundary is set based on distances from surface waters in 9 HUC-12 subwatersheds where ambient water quality data results indicated impairment/pollution. These HUC-9 subwatersheds include many popular swimming beaches on the Russian River mainstem.
	ORORR-10	A cost-benefit analysis should be done to justify the very high out-of-pocket cost individual costs of anticipated OWTS upgrades, as compared to costs the for controlling the other pathogen sources discussed in the Staff Report.	Staff recognize the concerns of many that upgrading or replacing substandard or failing OWTS is costly, particularly on certain sites. Nonetheless, upgrading and replacing substandard and failing OWTS with the potential to discharge fecal waste to public waterways is a public health imperative, regardless of the other sources of fecal waste in the watershed also at risk of discharging. Staff have collaborated with the local agencies to identify funding sources, which can be made available to OWTS owners in need of financial assistance. Staff have also collaborated with community members to establish advisory groups for the purpose of discussing and planning community-based systems, as appropriate. The Regional Water Board is committed to being an active participant with local agencies and stakeholders to identify and implement the variety of solutions that are likely needed to fully address the

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			existing problems associated with failing and substandard OWTS with the potential to discharge to public waterways.
			The Regional Water Board is not obligated to conduct a cost- benefit analysis; it must only consider a reasonable range of economic factors. Chapter 10 of the 2017 Draft Staff Report, and retained in the 2019 Staff Report, provides ranges of potential costs associated with all the reasonably foreseeable compliance measures associated with adoption of the Action Plan. The figures provided in Chapter 10 are sufficient for the Regional Board to consider adoption of the 2019 Action Plan.
	ORORR-11	The Action Plan should embrace this minimum system criteria used in the current "Voluntary Upgrade" system permitted by Sonoma County PRMD (consisting often of an appropriate tank and leach field) in order to achieve improvements in OWTS.	See response to Brooke-1.