Comments on the Amendment to the Water Quality Control Plan for the Santa Ana River Basin to Revise the Schedule for Attaining the Fecal Coliform Total Maximum Daily Loads for the Shellfish Harvesting Beneficial Use in Newport Bay

Changes proposed in response to comments are described below and incorporated into redlines that are available upon request and will be available at the hearing. Please contact Terri Reeder at (951) 782-4995 or terri.reeder@Waterboards.ca.gov for copies.

Com- ment	SHEL BPA Document	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
No.	Comment			
	Location			
1	Staff Report	City of Newport	The study did not find a correlation	The text has been modified accordingly.
	Editorial	Beach	between fecal coliform levels in the	
	Changes for		water, upon which the current SHEL	
	Discussion,		WQOs are based, or and the presence	
	page 4		of pathogen (NoV GI or GII and HAdV)	
	Shellfish Dry		and human molecular markers (MSC	
	Season Study		and HF 183) in oyster tissues.	
2	Staff Report	City of Newport	Do you want to add a sentence stating 'A	Sentence added.
	Comment for	Beach	second dry season study may be	
	Discussion,		performed if the wet season study	
	page 4		provides evidence that a second dry	
	Shellfish Dry		weather study can provide important	
	Season Study		data.	
3	Staff Report	City of Newport	'A plan and schedule to implement these	The text has been modified accordingly.
	Editorial	Beach	objectives to prevent any future	
	Changes for		increases in pathogen concentrations in	
	Discussion,		contamination of shellfish will also be	
	page 4		developed as part of the SSO process	
	SSO Process		and incorporated into revised	
			bacteria/pathogen TMDLs for Newport	
			Bay.	
4	Staff Report	City of Newport	However, a program to identify and	This revision not accepted. The human source
	Editorial	Beach	repair leaking sewer lines will be actively	identification study that is currently in progress
	Changes for		pursued now.'	includes identification of possible leaking sewer or

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
	Discussion, page 4 SSO Process			septic lines as a source; however, the sewer agency or property owner is responsible for repairing any leaking lines or tanks.
5	Staff Report Comment for Discussion, page 4 SSO Process	City of Newport Beach	Shellfish appear to be normally clean and only contaminated when exposed to sewage from a sewer leak.	The SCCWRP report noted that there were two sewage spills "possibly" correlated with occurrences of fecal indicator bacteria exceedances at two monitoring stations during the study. This statement from the report is simply an observation, not an actual correlation based on statistical hypothesis testing. Water Board staff do not agree that this suggested association between sewage spills and the presence of fecal markers in shellfish tissues are supported by the data from the SCCWRP report. Temporal associations, long distance, and small volume of the two sewage spills makes any assumption of causality unlikely without further substantiating evidence. No changes have been made in response to this comment.
6	Staff Report Editorial Changes for Discussion, page 5 Time Schedule Order	City of Newport Beach	Although comprehensive control measures have not been placed-planned to specifically address potential bacteriological impacts on SHEL, the Santa Ana Water Board did adopt, on December 6, 2019, Time Schedule Order (TSO) R8-2019-0050 so the Orange County TMDL Funding Partners could achieve- assist in achieving compliance with the wasteload allocations for fecal coliform in the Orange County Municipal Separate Storm Sewer System (MS4) Permit for	The text in the staff report has been partially modified to include the suggested changes in the first clause only. It is not clear who else could be assisting in achieving compliance with the WLAs in the MS4 permit. The MS4 permittees are responsible for complying with the WLAs. The TMDL Funding Partners, with the exception of The Irvine Company and Irvine Ranch Water District, are MS4 permittees.

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
			the protection of the water contact recreation (REC-1) beneficial use (Attachment 2).	
7	Staff Report Comment for Discussion, page 5 Time Schedule Order	City of Newport Beach	The TSO projects do not address sewage leaks into the bay from upstream sources.	The TSO requires identification and remediation of all sources of bacteria. No changes have been made in response to this comment.
8	Comment letter dated May 26, 2022, Introduction, page 1	Orange County Coastkeeper	Coastkeeper does not support adoption of the Amendment as it fails to comply with the Water Code, does not provide a schedule for compliance with the adopted TMDL, nor does it require interim timelines for compliance.	The Santa Ana Water Board fully complied with its obligations under the Water Code. A final schedule for compliance with the TMDL wasteload allocations (WLAs) and load allocations (LAs) and attainment of the SHEL water quality objective (WQO) was included in the Basin Plan Amendment and satisfies the requirements of Water Code section 13242(b). "Interim timelines for compliance" with WLAs and LAs are not legally required for TMDLs by any applicable statute or regulation. Nevertheless, the SHEL TMDL does include a description of various interim investigations, plans, and reports that responsible parties should undertake to make progress towards compliance with the final WLAs and LAs for the SHEL TMDL. The Santa Ana Water Board recognizes that this description, including Table 6-1g, should be updated to include a description of the dry and wet weather shellfish studies described in the Staff Report and that are part of the rationale for the current Basin Plan Amendment, along with the associated target completion dates for the studies. Accordingly, a footnote has been added to Table 6-

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				1g, Task 10b of the Implementation Schedule in the Basin Plan text, and related revisions have been made to the Resolution and Staff Report. Please see response to comment 9a. Additionally, as noted in the Staff Report, interim actions to improve water quality in Newport Bay continue to be required. The MS4 co-permittees are already undertaking efforts to control bacteria discharges from MS4s to Newport Bay pursuant to their current MS4 permit and Time Schedule Order R8-2019-0050 in order to meet the REC-1 water quality objective for bacteria. These efforts will continue after adoption of the proposed Basin Plan Amendment.
9a	Comment letter dated May 26, 2022, Expired Implementation Plan, pages 1-2, first paragraph	Orange County Coastkeeper	The Fecal Coliform TMDLs ("TMDLs") at issue were established in 1999, and provided twenty years to reach attainment of the Water Quality Objectives ("WQOs"). [The TMDL implementation] schedule is still in the existing Basin Plan, and can be found at Table 6-1g¹. ¹ Importantly, the Amendment does not propose an interim Implementation Plan, task list, or deadlines. Nor does it propose any changes to Table 6-1g.	Please see the response to Comment 8. "Interim" TMDL tasks are not required by any statute or regulation but are at the discretion of the Santa Ana Water Board. Nevertheless, the Santa Ana Water Board recognizes that the implementation schedule in Table 6-1g should be updated to include the studies and other activities contemplated as part of the Basin Plan Amendment. Therefore, a footnote has been added to Table 6-1g, Task 10b of the Implementation Schedule as follows: The Santa Ana Water Board and the Orange County TMDL Funding Partners jointly funded both the first and second phases of a study to determine whether the fecal coliform water quality objectives (WQOs) currently established in the Basin Plan correlate with fecal indicator bacteria and pathogens in shellfish and are protective of the SHEL beneficial uses. In 2018, the first phase of

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				the study, conducted by the Southern California Coastal Water Research Project (Phase I SHEL Study, dry season conditions: Zimmer-Faust A.G., et al. 2022. Relationships between indicators and pathogens in shellfish and water in Newport Bay, CA. SCCWRP Technical Report No. 1193), found no correlation between the shellfish water column based WQOs and bacterial and viral concentrations in shellfish tissue during dry weather conditions. In Fall 2022, the second phase of the study will perform the same sampling and analysis as the first phase, except during wet weather conditions. The second phase of the study could take from two to potentially six years to complete, as the wet season study is highly dependent on having sufficient water column and shellfish tissue samples collected during precipitation events (which are highly unpredictable) to be scientifically verifiable. The results of these studies may indicate that the Santa Ana Water Board should consider revision of the fecal coliform WQOs for SHEL beneficial uses prior to the completion of Task 10b. The addition of this footnote is noted in Finding No. 5 in Resolution No. R8-2022-0017. The first sentence in Finding 5 has been revised as follows: The Basin Plan amendment adopted through this Resolution would further extend the attainment date for the Fecal Coliform TMDLs to December 31, 2030, in Table 6-1f of the Basin Plan, update the TMDL implementation plan discussion in Table 6-1g, as well as include other non-substantive,
				editorial changes for clarity in Chapter 6, Section

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
	Location			3.a of the Basin Plan, which discusses the Fecal Coliform TMDLs. Further, related changes have been added to the Staff Report. The first sentence of the Executive Summary has been revised as follows: This amendment to the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) proposes to revise the schedule for attaining the Fecal Coliform Total Maximum Daily Loads (TMDLs) for the Shellfish Harvesting (SHEL) beneficial use in Newport Bay, update the TMDL implementation plan discussion in Table 6-1g, and provide non-substantive editorial changes to Basin Plan Chapter 6, Section 3.a.
				The following has been added as the last sentence to the first paragraph of the Introduction of the Staff Report: The TMDL implementation plan discussion in Table 6-1g of the Basin Plan has also been updated.
9b	Comment letter dated May 26, 2022, Expired Implementation Plan, pages 1-2, first paragraph	Orange County Coastkeeper	Included in the [Table 6-1g] task list is: A beneficial use assessment plan and report;	The following reports have been submitted by the MS4 Permittees: Newport Bay Shellfish Harvesting Assessment (2004) and Technical Memorandum Newport Bay Beneficial Use Assessment Revalidation (2009). Please also see Attachment A to Time Schedule Order No. R8-2019-0050.
9c	Comment letter dated May 26, 2022, Expired Implementation	Orange County Coastkeeper	source identification and characterization reports;	Newport Bay Fecal Indicator Bacteria Source Identification Project Final Report (2009). Please also see Attachment A to Time Schedule Order No. R8-2019-0050.

Com- ment	SHEL BPA Document	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
No.	Comment			
	Location			
	Plan, pages 1-2,			
0.1	first paragraph	0	TARDI NAVI A con LL A construction on L	A
9d	Comment letter	Orange County	TMDL, WLA, and LA evaluation and	Approved by Resolution No. R8-2000-0101 and
	dated May 26, 2022, <i>Expired</i>	Coastkeeper	source monitoring program;	implemented since adoption.
	Implementation			Please also see Attachment A to Time Schedule
	Plan, pages 1-2,			Order No. R8-2019-0050.
	first paragraph			01d01 110. 110 2010 0000.
9e	Comment letter	Orange County	an updated TMDL report	Please see the Newport Bay Fecal Coliform TMDL
	dated May 26,	Coastkeeper	· ·	2016 Summary of Management Activities and the
	2022, Expired			2018 updated report.
	Implementation			
	Plan, pages 1-2,			Please also see Attachment A to Time Schedule
	first paragraph			Order No. R8-2019-0050.
9f	Comment letter	Orange County	and an adjustment of the TMDL, if	A stakeholder process has been in place since
	dated May 26,	Coastkeeper	necessary	2017 for TMDL adjustment/revisions.
	2022, Expired Implementation			Additionally, in 2019 the State Water Board
	Plan, pages 1-2,			adopted the Bacteria Provisions and a Water
	first paragraph			Quality Standards Variance Policy into Part 3 of the
	mot paragraph			Water Quality Control Plan for Inland Surface
				Waters, Enclosed Bays, and Estuaries of California
				(ISWEBE Plan) for the protection of REC beneficial
				uses. Santa Ana Water Board staff plan to revise
				the current Fecal Coliform TMDLs to incorporate
				the enterococci objectives in the ISWEBE plan as
				these WQOs are more predictive of human health
				effects than fecal coliform.
				If the current WQOs for SHEL are determined to
				not be scientifically supported by the results of the
				Phase 1 and Phase 2 SHEL studies, then Santa
				Ana Water Board staff will also develop an
				alternative WQO for protection of the SHEL
				beneficial uses likely through development of site-
				specific and/or regional-specific objectives.

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				As further detailed in response to Comments 11a, 12b, and 13a below, Santa Ana Water Board staff are of the opinion that the current fecal coliform WQOs are not scientifically supported or protective of the SHEL beneficial use. Conclusion of the SHEL studies should provide the scientific data necessary to determine whether the SHEL WQOs need to be replaced. As detailed in response to Comment 13a below, the State Water Board has also recognized the need for development of new WQOs for the SHEL beneficial use on a statewide level and has authorized Regional Water Boards to deprioritize
10	Comment letter dated May 26, 2022, Failure to Comply With Water Code § 13242, page 2	Orange County Coastkeeper	Regional Water Quality Control Plans must comply with Article 3, Sections 13240-13249 of the California Water Code. The proposed amendment fails to meet each of these requirements for achieving the existing water quality objectives for Newport Bay by apparently abandoning the implementation schedule in Table 6-1g of the Basin Plan and failing to replace it with a new implementation schedule. The proposed Amendment simply seeks to push the compliance deadline eight years into the future. Without an implementation plan that complies with Section 13242, this Amendment should be denied.	issuance of TMDLs for SHEL. Please see response to Comment 8, above. Table 6-1g has not been abandoned. The MS4 copermittees have made numerous submissions pursuant to that Table and TSO R8-2019-0050 – please see response to Comments 9b through 9f. Additionally, the Santa Ana Water Board has proposed updates to Table 6-1g – see response to Comment 9a.
11a	Comment letter dated May 26,	Orange County Coastkeeper	there is currently no scientific basis for changing the water quality objectives.	The California Ocean Plan incorporated the National Shellfish Sanitation Program (NSSP)

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
	2022, Underlying Scientific Basis for the Fecal Coliform TMDL has Not Changed, page 3 (top paragraph)		staff has not produced any scientific basis for changing the water quality objectives or any peer reviewed evidence to support a change in the beneficial uses of Newport Bay	public health bacteriological food safety standards by reference, without scientific peer review. Subsequently, the NSSP guidance was also incorporated into all coastal Regional Water Boards' Basin Plans. The NSSP guidance are formulated with the cooperation of Federal Food and Drug Administration and the Interstate Shellfish Sanitation Conference (ISSC). The NSSP numbers are used to classify growing areas for commercial harvesting, allowing restrictions by the California Department of Public Health to suspend commercial operations. NSSP standards are not designed to be federal water quality standards and were not published in the Federal Register or exhaustively peer reviewed. The ISSC is a nongovernment body that made recommendations that were incorporated into practical guidance in the shellfish industry without a federal rule-making action. As detailed in the Staff Report, preliminary indications from the dry weather study show that a change to the water quality objective for SHEL may be needed, pending confirmation of additional studies. Santa Ana Water Board staff is not proposing to change the beneficial uses in Newport Bay at this time.
11b	Comment letter dated May 26, 2022, page 3, paragraph 2	Orange County Coastkeeper	the Amendment lacks a single enforceable deadline to even conduct the proposed studies and lacks a Basin Plan amendment describing the studies to be conducted in an updated implementation plan	Please see responses to Comments 8 and 9a, above.

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
11c	Comment letter dated May 26, 2022, page 3, paragraph 3	Orange County Coastkeeper	During the stakeholder process, Coastkeeper recommended an interim standard based on the study to understand the relationship between indicators and pathogens in shellfish attached to the Staff Report. Based on the study [SCCWRP Phase 1 dry season shellfish study], Coastkeeper recommended an interim standard that would require zero pathogens in shellfish tissue. This standard is attainable, at least during dry weather, as indicated in the conclusion of the study.	During the October 20, 2021 facilitated meeting with Santa Ana Water Board staff, Orange County Coastkeeper, and the Orange County TMDL Funding Partners, Water Board staff explained that in order to adopt an interim water quality objective that is tissue based rather than water column based while the remainder of the SHEL studies are being completed, the interim objective would require peer review and CEQA scoping and analysis. This process would add considerable length to the adoption of the current proposed Basin Plan Amendment and potentially take a minimum of 2 years to complete, given the Santa Ana Water Board's limited resources. Moreover, as noted in the Staff Report, the MS4 co-permittees are undertaking various additional steps pursuant to TSO R8-2019-0050 towards reduction of bacteria concentrations in the MS4 discharges to Newport Bay.
11d	Comment letter dated May 26, 2022, page 3, paragraph 3	Orange County Coastkeeper	Regional Board staff refused to consider this as an interim standard and failed to provide an alternative interim standard	See response to Comment 11c, above. Note also that no "interim standard" is legally required by Water Code section 13242 – see response to Comment 8. In addition, there were two detections of human adenovirus (HAdV) in oyster tissues at two locations in the Bay: Dunes Lagoon (station NBS7) and Santa Ana Delhi Channel (station NBS13) during week 6 of the dry season shellfish study (see Figure 8 in SCCWRP's Technical Report 1193). Therefore, adoption of an interim water quality objective of zero pathogens in shellfish tissue would result in exceedances and likely penalties for the MS4 co-permittees depending on how the interim objective would be applied.

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				Given the high cost and time needed to conduct and complete the two shellfish studies (Phase 1 dry season study [\$403,000], 3 years to complete; Phase 2 wet season study [estimated to be between \$500,000 and \$570,000], and potentially 2-6 years to complete), it may cost the MS4 copermittees several hundred thousand dollars per year if the MS4 permit included a requirement to measure bacteria and pathogens in shellfish tissue. Requiring this type of monitoring as part of the MS4 permit would be hard to justify given the determination of how frequently tissue monitoring should be conducted, how many stations need to be sampled, how many samples need to be collected and when, and the time needed to collect and analyze the samples, that would likely be necessary to ensure protection of human consumers of shellfish collected from Newport Bay. A method that can quickly analyze bacteria and pathogens in the water column (and is correlated with tissue concentrations in shellfish) is needed to be able to promptly notify the public when, where, and for how long they should not collect shellfish for human consumption as a result of bacteria or pathogen concentrations present in shellfish at specified locations.
12a	Comment letter dated May 26, 2022, Time Schedule Order, first paragraph, page 3	Orange County Coastkeeper	the MS4 co-permittees, who are all TMDL Funding Partners, are not able to meet the attainment deadline because of their failure to implement BMPs over the past two decades.	The Fecal Coliform TMDL was developed in the late 1990s when very limited information was available. For this reason, the TMDL called for a series of monitoring, source identification, and beneficial use assessment tasks to address the deficit of information, and at the same time to implement a series of BMPs to reduce fecal indicator bacteria in Newport Bay. The complexity of these water quality issues and changing science

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				requires more time to meet the current attainment deadline of December 31, 2022. The issue is being addressed through a collaborative stakeholder process. These challenges have not discouraged the TMDL Funding Partners from implementing BMPs, as the vast majority of the watershed is treated by at least one BMP. More than 3,000 various BMPs have been implemented throughout the watershed, including trash-related BMPs, low impact development BMPs, diversions, and natural treatment systems, among others. These BMPs have resulted in much improved water quality in the Bay including reductions in fecal indicator bacteria and reductions in other pollutants (e.g., sediment, nutrients, metals, trash). See also Attachment A to Time Schedule Order R8-2019-0050.
12b	Comment letter dated May 26, 2022, first paragraph, page 3	Orange County Coastkeeper	It is not this Regional Board's job to change the water quality objectives or extend deadlines to meet water quality objectives when the regulated community refuses to make efforts to come into compliance with peer-reviewed and duly adopted regulations.	As discussed in detail in response to Comment 11a, the SHEL WQOs did not undergo peer review. The purpose of the two shellfish studies that are being funded by the Water Board and the TMDL Funding Partners (dry and wet season studies) is to determine whether there is any correlation between the current water column based WQOs for fecal coliform in shellfish and actual bacteriological and pathogen concentrations in shellfish tissue. If no correlation is found in the SHEL wet season study as was found during the SHEL dry season study, then Santa Ana Water Board staff will recommend revision of the fecal coliform WQOs for the SHEL beneficial uses. It is also possible that a second dry season study may be performed. For clarity, the following

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				sentence has been added to the Staff Report, as the last sentence of the second paragraph of the Discussion: A second dry season study may be performed if the wet season study provides evidence that a second dry weather study can provide important data.
12c	Comment letter dated May 26, 2022, first paragraph, pages 3-4	Orange County Coastkeeper	if the MS4 co-permittees cannot meet the attainment deadline that was set twenty-three years ago, the Regional Board should issue an enforcement action in the form of a Time Schedule Order. A Time Schedule Order would contain enforceable interim deadlines that bring the MS4 co-permittees into compliance with existing water quality objectives	In this case, the Santa Ana Water Board believes that the extension of the TMDL attainment deadline for SHEL is preferrable to the issuance of a Time Schedule Order. As noted in response to Comment 13a below, the Santa Ana Water Board anticipates that development of site-specific objectives will be necessary for SHEL, and the State Water Board recognizes that revision of SHEL water quality objectives is generally needed on a statewide basis. Moreover, given the time and expense required just to conduct the SHEL studies (see response to Comment 11d), coupled with the fact that the MS4 co-permittees are already subject to a TSO to reduce bacteria concentrations in the MS4 discharge to meet the REC-1 water quality objective, a separate TSO requiring additional actions from the MS4 co-permittees does not appear to be the best use of resources at this time. Moreover, there are several noteworthy limitations to TSOs. TSOs may not exceed five years, though, in some cases, TSOs may be extended for an additional five years (for a total of ten years) if

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				certain criteria are met. (Wat. Code § 13385(j)(3).) Additionally, TSOs do not shield permittees from liability from citizen lawsuits under the Clean Water Act.
12d	Comment letter dated May 26, 2022, page 4, last paragraph	Orange County Coastkeeper	If the Regional Board desires to revise the TMDLs and perform the peer-reviewed studies required to make such revisions, the Regional Board can do so concurrently at its own pace or as funding becomes available. This will result in forward progress towards attainment of existing WQOs while simultaneously exploring an alternative WQOs that are protective of human health and the beneficial uses of Newport Bay.	Please see response to Comment 12c. The Phase 1 dry season shellfish study has already been completed and funding has been provided by both the Santa Ana Water Board and the TMDL Funding Partners for SCCWRP to conduct the second phase of the study during the upcoming 2022/2023 wet season. Completion of the Phase 2 study will help determine if the current WQOs correlate with bacteriological and pathogen concentrations in shellfish tissue. If a no correlation is found during the wet season, then Santa Ana Water Board staff will pursue revision of the fecal coliform WQOs. Staff continue to research alternative WQOs and participate in shellfish work groups.
13a	Comment letter dated May 26, 2022, page 4, Conclusions, first paragraph	Orange County Coastkeeper	The Amendment does not contain a new timeline for attainment of existing water quality objectives, nor does it provide a scientific basis for changing the existing water quality objectives. The Staff Report indicates that the extension is to perform additional studies, yet there are no enforceable obligations or timelines to perform the studies described. In sum, this Amendment represents a failure of the MS4 co-permittees to come into compliance with the law and a failure of staff to enforce those laws.	Please see responses to Comments 11a, 12b, and 12d. A recent finding by State Water Board during the adoption of State Water Resources Control Board Resolution No. 2022-0006, Adopt the Clean Water Act Section 303(d) list of Impaired Waters for the 2020-2022 California Integrated Report that highlighted that the State Water Board anticipates a future planning action to consider revising the water quality objective for shellfish harvesting in the Ocean Plan and that related TMDLs should not be developed until after the State Board completes the project. Finding 13 from Resolution No. 2022-0006 states the following: "13. Consistent with the Listing Policy, the 303(d) list component of the 2020-2022 California

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				Integrated Report includes recommendations to list several segments of the Pacific Ocean as impaired by pathogenic indicator bacteria due to exceedances of the shellfish harvesting water quality objective, which is expressed in total coliform density. As part of the 2019 Ocean Plan Review, the State Water Board identified, as a high priority, a future planning project to consider revising the shellfish harvesting beneficial use to distinguish between recreation, commercial, or tribal types of harvesting; and to consider revising the shellfish harvesting water quality objective in the Water Quality Control Plan for Ocean Waters of California. Should the beneficial uses or the water quality objective be revised in the future, previously assessed data will be reassessed with the new water quality objective in a subsequent listing cycle. The State Water Board expects that any Ocean waterbody segment listed as impaired by indicator bacteria for the protection of shellfish harvesting would not be scheduled for TMDL development until after the State Water Board completes the planning project. In addition, the State Water Board encourages the Regional Water Boards to use their discretion where appropriate in establishing permitting, monitoring, and other data collection requirements."
				While the above applies to open coastal waters and not bays and estuaries, which are governed by the ISWEBE plan, there is a need for the State Water Board to take on a similar task for application to those water bodies. Several coastal regions have incorporated the Ocean Plan's use of the NSSP guidance for bacteriological water quality standards for public health—which have not been

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				peer reviewed and were not intended for recreational, subsistence, or tribal shellfish harvesting but only for commercial shellfish aquaculture—into their Basin Plans, including the Santa Ana Region.
				Water Board staff are of the opinion that the current fecal coliform WQOs are not scientifically supported or protective of the SHEL beneficial use. Conclusion of the SHEL studies should provide the scientific data necessary to determine whether the SHEL WQOs need to be replaced.
				For clarity, the third sentence of the fifth paragraph of the Discussion in the Staff Report has been revised as follows:
				If the wet season SHEL study results in a similar conclusion, site-specific objectives (SSOs) would likely need to be developed to replace the current SHEL WQOs in the Basin Plan, which would no longer be scientifically supported.
				Additionally, the following paragraph has been added to the end of the Discussion in the Staff Report:
				This conclusion is further supported by the State Water Resources Control Board's (State Water Board) recent recognition of the need to develop new WQOs for the SHEL beneficial use on a statewide level. In Resolution No. 2022-0006, entitled, 'Adopt the Clean Water Act Section 303(d) List of Impaired Waters for the 2020-2022 California Integrated Report,' [see Finding 13] and as part of the 2019 review of

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				the Water Quality Control Plan for Ocean Waters of California (Ocean Plan), the State Water Board gives high priority for consideration of revising the shellfish harvesting beneficial use to distinguish among recreational, commercial, or tribal types of harvesting; and for revising the shellfish harvesting WQO in the Ocean Plan. The WQO referred to in the Ocean Plan is for total coliform as the pathogenic indicator bacteria of which fecal coliform is a type of total coliform. The resolution goes on to state that 'Should the beneficial uses or the water quality objective be revised in the future, previously assessed data will be reassessed with the new water quality objective in a subsequent listing cycle. The State Water Board expects that any Ocean waterbody segment listed as impaired by indicator bacteria for the protection of shellfish harvesting would not be scheduled for TMDL development until after the State Water Board completes the planning project. In addition, the State Water Board encourages the Regional Water Boards to use their discretion where appropriate in establishing permitting, monitoring, and other data collection requirements.' The resolution supports the Santa Ana Water Board's determination that further study of the shellfish harvesting water quality objective is needed, especially as several of the coastal regions adopted the Ocean Plan objectives into their regional Basin Plans.
13b	Comment letter dated May 26, 2022, page 4,	Orange County Coastkeeper	Coastkeeper cannot accept or support an eight-year extension that will not result in restoration of these beneficial	As stated in the Staff Report, the length of time and need for an extension to the attainment of the shellfish beneficial uses was discussed at three

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
	Conclusions, last two paragraphs		uses or the protection of human health in Newport Bay. Coastkeeper urges the Regional Board to unanimously deny Resolution R8-2022-0017, and to direct staff to issue a Time Schedule Order to the MS4 co-permittees who are regulated by the applicable TMDLs and who cannot meet water quality objectives by December 2022.	facilitated meetings that Coastkeeper participated in (dates). At those meetings, Santa Ana Water Board staff stated that a 10-year extension was needed to complete the necessary shellfish studies, revise the TMDLs, and if new WQOs were necessary, develop alternatives to the current WQOs. Coastkeeper stated that 5-6 years should only be needed to do this work. A compromise of an 8-year extension was reached. While the Santa Ana Water Board understands Coastkeeper's desire for the restoration of these beneficial uses and the protection of human health, there currently are not sufficient data to ascertain whether these uses are not currently being attained. In fact, the completed Phase 1 dry season study indicates that the SHEL beneficial use is being attained in the Bay the majority of the time during dry weather conditions. However, it still needs to be determined if the same is true for the wet season and if the current WQOs correlate with fecal indicator bacteria and pathogen concentrations in shellfish tissue during and shortly after, rain events. Therefore, Santa Ana Water Board staff will recommend to the Board that an 8-year extension of the SHEL attainment date is necessary and appropriate and to approve Resolution No. 2022-0017.
14	Email dated May 26, 2022, from James Fortuna	Orange County Public Works	Proposed revised language for page iv of the staff report. Correction regarding status of the Costa Mesa Channel and Santa Isabel Channel proposed diversion projects.	The sixth paragraph in the Discussion Section of the Staff Report has been revised as follows: Although comprehensive control measures have not been planned placed to specifically address potential bacteriological impacts on SHEL, the

Com- ment No.	SHEL BPA Document Comment Location	Organization	Submitted Comments	Santa Ana Water Board Staffs' Response
				Santa Ana Water Board did adopt, on December 6, 2019, Time Schedule Order (TSO) R8-2019-0050 so the Orange County TMDL Funding Partners TSO recipients (County, Orange County Flood Control, and Cities) could achieve compliance with the wasteload allocations for fecal coliform in the Orange County Municipal Separate Storm Sewer System (MS4) Permit for the protection of the water contact recreation (REC-1) beneficial use. The TSO requires the identification and investigation of bacteria sources to Newport Bay and development of a Pollution Prevention Plan to install, implement, and maintain Best Management Practices (BMPs) and control measures to address these sources. Additionally, the TSO includes completed structural BMP projects for the Hoag Drain and Arches diversion project, Newport Bay bilge pump installation project, and Newport Dunes diversion revision project. The TSO recipients also completed an engineering evaluation and analysis for additional BMPs at various locations, such as East Costa Mesa Channel diversion project, and the Santa Isabel Channel. Based on the results of the ongoing bacteriological source investigation study initiated in March 2022, this evaluation and analysis will inform the Pollution Prevention Plan. Implementation of these BMPs should result in reductions of indicator bacteria to protect both REC-1 and SHEL beneficial uses.
15	Email dated May 27, 2022, form Amanda Carr, Deputy Director	Orange County Public Works	Consider including the recent finding [Finding 13] by the State Water Board in SWRCB Resolution No. 2022-0006.	This information has been added to the Staff Report in response to Comment 13a.