Response to Comments

Southern California Edison Pebbly Beach Desalination Plant

Tentative Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit

This table describes all significant comments received from interested persons with regard to the above-mentioned tentative permit. Each comment has a corresponding response and action taken.

Comment Number	Comment	Response	Action Taken
1.	Order Section VI.C.2.b, page 14. This section requires SCE to submit a compliance demonstration for the new reverse osmosis (RO) Unit (Plant 2) configuration within 90 days of permit adoption.		
	SCE requests 180 days to prepare and submit this workplan. Significant coordination will be required to appropriately design this compliance demonstration with the Pebbly Beach Desalination Plant (PBDP) operators. This additional time will be necessary to (1) ensure that this process is completed with the least amount of disturbance to the desalination plant and its production of fresh water permeate, and (2) ensure that the plant can switch between modes for the duration of the study, and at the time proposed for the study. Additionally, SCE will be preparing concurrent workplans as required by this Tentative Draft Permit, and the ability to stagger the due dates would ensure a better work product.	The Regional Water Board concurs with changing the date for submittal of the workplan from 90 days to 180 days from the effective date of the permit.	Revision included on Page 14, Item 2.b. of the Order.
	This section notes that Mode 0, Plant 1 only, is the normal operating mode. In fact, Plant 2 has been commissioned, and is the primary operating plant at this time, with Plant 1 on standby. This is termed Mode 2 in the Report of Waste Discharge and is shown on page C-4 of the Tentative Draft Permit. SCE requests that this section be updated to note that Mode 2 is the normal operating mode.	The text will be modified to indicate Mode 2 as the normal operating mode.	Revision included on Pages 14 – 15, Item 2.b, of the Order.

Table 1. Comments Received from Southern California Edison on November 6, 2019 (Letter)

Comment Number	Comment	Response	Action Taken
2.	Monitoring and Reporting Program, page E-5 Temperature monitoring has increased from once per quarter to weekly monitoring. SCE has corrected the erroneous temperature report that was submitted via CIWQS, and requests that this be set back to quarterly monitoring.	The effluent monitoring frequency for temperature has not been increased. The previous Order No. R4-2011- 0165 as amended by Order No. R4-2011-0165-A01 included effluent monitoring for temperature at a frequency of once per week, the same as the monitoring frequency for temperature included in the tentative Monitoring and Reporting Program (MRP). Similarly, the receiving water monitoring frequency of quarterly from the prior Order has been maintained.	None necessary.
	SCE requests that monitoring for fecal coliform be conducted weekly rather than five times per month. All other pathogen samples are collected weekly; allowing fecal coliform to be collected with the other samples ensures consistency and certainty in monitoring schedules. There were no fecal coliform exceedances during the previous permit term, so there should be no driver to increase the monitoring frequency. The requirement to collect five times per month, spaced equally, will result in scheduling challenges, will double the sampling effort, and will increase shipping costs because the samples cannot be collected concurrently with the weekly samples for other pathogens.	The Board agrees. The requirement will be modified to indicate that the geometric mean can be calculated based on the five most recent samples.	Revision included on Table E-2, Pages E-7 and Page E-9.
3.	Attachment E, Monitoring and Reporting Program, page E-19, and E-20. Table E-6 requires salinity monitoring in the receiving water to be conducted weekly for the duration of the permit cycle. This facility will generally operate at a steady state, and SCE notes that the requirement to conduct weekly sampling in the receiving water will create significant cost without the benefit of gaining valuable data. SCE requests that this requirement be reduced to once every six months. Additionally, a similar data collection campaign will occur as part of SCE's preparation of the 13142.5(b) Determination	There is no receiving water salinity data available at the discharge point or in the proximity of the discharge for the Pebbly Beach Desalination Plant since the NPDES permit was issued in 1989. The receiving water monitoring for salinity is required to gather data to determine the representative natural background salinity in the proximity of the PBDP discharge location and to determine compliance with the receiving water salinity limitation included in the permit. The salinity monitoring requirement in the preparation of the 13142.5(b) Determination as the salinity data collected from the permit's salinity monitoring could be utilized in the	Revision included in Table E-6, Pages E-19, and E-20.

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	Request and should not be duplicated through a permit requirement.	13142.5(b) Determination. Since there is no site-specific data available, weekly sampling of the receiving water will be required until after the Compliance Demonstration Report is submitted and approved. Footnote 9 has also been modified to note that, with approval from the Executive Officer, the receiving water monitoring frequency can be reduced after the Compliance Demonstration Report is submitted and approved.	
4.	Attachment F, Fact Sheet, page F-7 Section II.B of the Fact Sheet provides a description of the facility. During development of the ROWD, SCE was asked to test the influent water from the seawells for plankton, to ensure that intake and mortality on the seawater supply side of the plant was not a concern. SCE conducted this analysis, and the lab report, dated October 22, 2018 states,	nent F, Fact Sheet, page F-7 II.B of the Fact Sheet provides a description of the During development of the ROWD, SCE was asked he influent water from the seawells for plankton, to that intake and mortality on the seawater supply side ant was not a concern. SCE conducted this e, and the lab report, dated October 22, 2018 states, tooplankton or phytoplankton were detected in either e. Subsurface-well intake water sampling indicates intrainment of plankton is not predictably occurring at bsurface well. Seawater is believed to be ately filtered seawater through sediment and gical features of the seafloor to eliminate inment or impingement; no marine life mortality is ted at the sweater well intake."	Revisions included on Page F-7, Section II.B., paragraph two of the Fact Sheet.
 "No zooplankton or phytoplankton were detected is sample. Subsurface-well intake water sampling ind that entrainment of plankton is not predictably occur the subsurface well. Seawater is believed to be adequately filtered seawater through sediment and geological features of the seafloor to eliminate entrainment or impingement; no marine life mortali expected at the sweater well intake." This finding provides certainty that there is no mortal the intake. SCE requests that the section discussing process at the bottom of page F-7 be modified as following the seawater of the seawater of the seafloor is not predictably occur and the intake. 	"No zooplankton or phytoplankton were detected in either sample. Subsurface-well intake water sampling indicates that entrainment of plankton is not predictably occurring at the subsurface well. Seawater is believed to be adequately filtered seawater through sediment and geological features of the seafloor to eliminate entrainment or impingement; no marine life mortality is expected at the sweater well intake."		
	This finding provides certainty that there is no mortality at the intake. SCE requests that the section discussing this process at the bottom of page F-7 be modified as follows:		
	"Recent testing of the two current seawells demonstrated that intake or mortality of all forms of marine life at the wells is <u>minimal zero</u> . The installation of two additional subsurface seawater intake wells will <u>likely also</u> result in <u>even less</u> <u>potential zero potential</u> for the intake or mortality of marine life."		

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5.	Attachment F, Fact Sheet, page F-11 Fact Sheet Section II.F, Compliance Summary, notes that there was a temperature exceedance on 4/28/2017, with a reported value of 100.4 degrees Fahrenheit (°F). SCE reviewed this report in CIWQS and also checked the original data collection sheet, and found that this value was reported erroneously. The correct value was 69 °F. Upon review of the tentative draft permit, realized that this incorrect date [sic] point had been reported, and SCE requested the monitoring report be unsubmitted from CIWQS. The report has now been corrected, and will be resubmitted shortly.	The previously noted violation for temperature was removed in the Compliance Summary.	Section F. Compliance Summary, on Page F-11 of the Fact Sheet has been modified.
6.	 Attachment F, Fact Sheet, page F-13 Section I1.G.2 of the Fact Sheet notes that there are two options for creating a consistent supply of 1,100 gpm of seawater influent. Option 1 includes installing new wells to combine with the existing wells. This is dependent on the ability of the existing wells to be refurbished and improved. Option 2 includes abandoning the existing wells and drilling four or more new wells to create the necessary supply flow. The Draft Permit goes on to note that SCE may not proceed with Option 2 without concurrence from the Regional Water Board. SCE proposes providing notification to the Regional Water Board if it determines that Option 1 is not feasible. Because the replacement of the existing wells will require approval from the Coastal Commission and LA County, and because drilling new wells will not have an impact on the effluent quality or the receiving water, SCE requests that the additional step of awaiting Regional Water Board approval be removed. 	This Order allows the Discharger to implement Option 1. If the results of the assessment of the performance capacity of the two existing wells plus the two new wells indicate the capacity cannot sustain the production capacity of the plant, the Discharger shall notify the Regional Water Board and submit the assessment report. The Discharger may then request concurrence from the Regional Water Board Executive Officer to implement Option 2. If, however, there is an increase in the discharge volume above what is permitted in this Order or if the planned changes constitute an "expanded facility" as that term is defined in the California Ocean Plan, then this Order must be reopened.	None necessary.
7.	Attachment F, Fact Sheet, page F-32	On January 29, 2018, SCE submitted to the Regional Water Board a Work Plan, which includes the approach to determine the natural background salinity. SCE	None necessary.

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	Section IV.C.6.b of the Fact Sheet, Determination of Natural Background Salinity, notes that the natural background salinity established by SCE was modified by a standard deviation of 0.18 ppt. This has the effect of reducing the CA Ocean Plan allowance of 2.0 ppt above natural background salinity at 100m by 0.18 ppt, so that the effluent limitation is now 2.0 - 0.18 = 1.82 ppt above natural background salinity at 100m. SCE will provide further analysis in the 13142.S(b) determination request to demonstrate that the variability in natural background salinity in the Southern California Bight is extremely low, and that there should be no adjustment to the CA Ocean Plan limit of 2.0 ppt. SCE requests that a permit reopener be included following demonstration of the low variability in natural background salinity.	evaluated data from a number of sites within the Southern California Bight and determined that the Scripps Pier Shore Station appears to be the most feasible proximal reference location to establish natural background salinity representative of the Facility's discharge location. SCE performed analysis of the daily mean surface and bottom salinity at the Scripps Pier Shore Station for the most recent 20-year period. The statistical analysis indicated a 20-year average salinity of 33.52 parts per thousand (ppt) with a standard deviation of 0.18 ppt. The Work Plan concluded that based on the statistical analysis, the ocean area generally described as the Southern California Bight, including in the immediate vicinity of the Pebbly Beach Desalination Plant, can be represented by a single natural background salinity value of 33.52 ppt. Regional Water Board and State Water Board (collectively Water Boards) staff reviewed the Work Plan and determined that it appears to comply with the requirements in the Ocean Plan. Water Board staff determined a natural background salinity of 33.34 ppt (i.e., 33.52 - 0.18 = 33.34 ppt, where 0.18 is the standard deviation of the average salinity at the Scripps Pier Shore Station). Using a natural background salinity of 33.34 ppt instead of 33.52 ppt is a conservative approach that may account for regional differences in salinity between the Scripps Pier and the discharge location for the Pebbly Beach Desalination Plant. Therefore, the natural background salinity of 33.34 ppt is utilized to calculate the salinity effluent limitation in the permit.	
	SCE requests the following reopener be included in Section VI.C.1: This Order may be reopened for modification of the current determination of natural background salinity based	A reopener will be added in Section VI.C.1 of the Order which reads: "o. This Order may be reopened to modify the natural background salinity, based on data collected in proximity to the Pebbly Beach Desalination Plant	The reopener is included as item o. on Page 14 of the Order.

Comment Number	Comment	Response	Action Taken
	on evidence to be provided with the 13142.5(b) Determination Request.	discharge location, which will be provided with the 13142.5(b) Determination Request."	

Table 2. Comments Received from Southern California Edison on November 6, 2019 (Appendix: Editorial Comments and Clarifications)

Comment Number	Comment	Response	Action Taken
1.	Attachment E, Monitoring and Reporting Program, page E-17 Section 8.d on this page appears to have a copy and paste error, and the meaning of the paragraph has been distorted. Request that this paragraph be reviewed to ensure clarity.	The Regional Water Board concurs. Section 8.d will be revised to read: "The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE are/is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun."	The updated text is included on Page E-18, Item 8.d. of the MRP.
2.	Attachment F, Fact Sheet, page F-4 Section I.F of the Fact Sheet makes reference to a Time Schedule Order (TSO) that had originally been requested with the Report of Waste Discharge. Due to further research, that TSO was found to be unnecessary. SCE notes that keeping a reference to the TSO in the NPDES Permit may cause confusion, since there was no TSO issued concurrent with the NPDES Permit, and requests that this reference be removed.	The Regional Water Board concurs. The sentence in Section I.F of the Fact Sheet that makes reference to a Time Schedule Order (TSO) will be deleted.	The Fact Sheet has been revised.
3.	Attachment F, Fact Sheet, page F-6 Section II.A.2 of the Fact Sheet references the commissioning of Plant 2 in the future tense. In fact, Plant 2 is currently operational, and the facility is running primarily in Mode 2 (Plant 2 only) due to its higher efficiency than Plant 1. SCE requests that Mode 2 be referenced as the current mode.	The Regional Water Board concurs. The second paragraph of Section II.A.2 of the Fact Sheet will be revised to read: "After commissioning of Plant 2, the total maximum production capacity of the Facility increased from 0.202 million gallons per day (MGD) to 0.230 MGD. The maximum production volume of the plant will depend on its operational mode. Plant 2 is operating, and the	The Fact Sheet has been revised.

Comment Number	Comment	Response	Action Taken
		Facility is running primarily in Mode 2 (Plant 2 only) due to its higher efficiency relative to Plant 1."	
4.	Attachment F, Fact Sheet, page F-12 Section II.G of the Fact Sheet notes that Pebbly Beach Desalination Plant is planning to install two new seawells to provide increased seawater intake capacity from 400 gpm to 1,100 gpm. In fact, while two new seawells is the goal, the production capacity of the new seawells is not guaranteed, and installation of more than two new seawells may be required to achieve the desired intake capacity. SCE suggests striking the word "two" in the description quoted above.	The text on Page F-13 of the Fact Sheet has been modified to read "This Order allows the Discharger to implement Option 1. If the results of the assessment of the performance capacity of the two existing wells plus the two new wells indicate the capacity cannot sustain the production capacity of the plant, the Discharger shall notify the Regional Water Board and submit the assessment report. The Discharger may then request concurrence from the Regional Water Board Executive Officer to implement Option 2. If, however, there is an increase in the discharge volume above what is permitted in this Order or if the planned changes constitute an "expanded facility" as that term is defined in the California Ocean Plan, then this Order must be reopened."	The Fact Sheet Page F-13 has been revised.
5.	Attachment F, Fact Sheet, page F-23 Section IV.C.3.a of the Fact Sheet, Minimum Initial Dilution for Ocean Plan Table 1 Pollutants, notes in paragraph 3 that a dilution factor of 5:1 is used for all constituents. SCE requests that this be clarified as follows: "The State Water Board and Regional Water Board, based on the data provided, concluded that a dilution factor of five (5:1) is applicable for this discharge <u>for all constituents</u> <u>except salinity. See Section IV.C.6 for a discussion of the salinity effluent limitation calculation"</u>	The Regional Water Board concurs. Paragraph 3, third sentence in Section IV.C.3.a of the Fact Sheet, will be revised to read: "The State Water Board and Regional Water Board, based on the data provided, concluded that a dilution factor of five (5:1) is applicable for this discharge for all Ocean Plan Table 1 pollutants except salinity. See section IV.C.6 for a discussion of the salinity effluent limitation calculation."	The Fact Sheet has been revised.

Comment Number	Comment	Response	Action Taken
1a	For any one calendar month or week during which no sample (daily discharge) is taken and no reasonable justification is provided, a violation must be accordingly determined for that calendar month or week, with appropriate enforcement action.	If a sample is not taken as required and no justification is provided or the justification is inadequate, the failure to collect a required sample would be a violation of the Discharger's monitoring and reporting requirements, not a violation of the effluent limits.	None necessary.
	As currently written in the Tentative Order, "[f]or any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to the AMEL." However, it is important that samples are taken on schedule as required by the permit, unless there are safety concerns, or sampling was otherwise not possible. We understand that skipping a sampling event without reasonable justification is usually determined as a monitoring violation rather than a water quality violation, and request that clarifying language be added to the permit. We recommend the following language be added to the first paragraph under Section VII.E. of the Tentative Order:		
	"For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to the AMEL. If no reasonable justification (i.e. unsafe sampling conditions, no discharge, etc.) is provided in the absence of a sampling event for a calendar month, a monitoring violation will be determined for that calendar month."		
1b	Pursuant to the same principles, we recommend the following language be added to the first paragraph under Section VII.F of the Tentative Order: "For any one calendar week during which no sample (daily discharge) is collected, no compliance determination can be made for that calendar month with respect to the AWEL. If no reasonable justification (i.e. unsafe sampling conditions,	The language proposed in the comment references a calendar month. However, the section to which the comment applies is regarding the weekly sampling frequency. As stated in Response to Comment 1a above, the proposed change is in the section of the Order that discusses compliance with the effluent limitations, not the	None necessary.

Table 3 – Comments Received from Heal the Bay on November 18, 2019

Comment Number	Comment	Response	Action Taken
	no discharge, etc.) is provided in the absence of a sampling event for a calendar month, a monitoring violation will be determined for that calendar month."	monitoring program. The proposed language addresses determination of violations of monitoring and reporting requirements included in the MRP. The proposed language does not clarify the process of evaluating compliance with the MRP. Thus, the proposed language has not been added.	
1c	If a sampling event is missed without reasonable justification, we lose data which is necessary to understand the potential impacts of the facility on local water quality. More importantly, missing that sampling event can allow a potential water quality exceedance to go undetected, and therefore unresolved, prolonging the negative impacts of the water quality exceedance. For this reason, appropriate enforcement action must be taken as soon as possible in the event of a monitoring violation.	The tentative Order includes provisions, Sections VI.A.2.o., p. and q. of enforcement actions to be taken for violations of any provisions in the permit. Violations of the monitoring requirements are included.	None necessary.
2	The Permittee shall retain records of all monitoring information, including all calibration and maintenance records, and records of all data used to complete the application for this Order, for a period of at least 5 years. Section IV.A of the Tentative Order currently states that the Permittee "shall retain records of all monitoring information, including all calibration and maintenance records and all original strip charge recordings for the continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least 3 years." Because the operation of the desalination plant has the potential to raise environmental concerns and questions of public health and safety, we recommend that the record retention period be increased to a minimum of at least 5 years. In particular, while we appreciate that the Order includes several measures aimed at minimizing the impact that the new intake wells will have on the marine	As an initial matter, Section IV.A of the Tentative Order includes the "Effluent Limitations – Discharge Point 001," and not the quoted language. Rather, "Attachment D - Standard Provisions, Section IV.A." includes the quoted language. The quoted language was derived from (40 CFR § 122.41(j)(2)) and is standard language included in all permits for industrial discharges issued in this Region. The stated period to retain records of at least three years will not be changed in the Standard Provisions. However, Dischargers submit their monitoring data to the California Integrated Water Quality System (CIWQS) database. Therefore, while the discharger is only required to retain all monitoring records for three years, all monitoring data will be retained in CIWQS in perpetuity and available for analysis.	None necessary.

Comment Number	Comment	Response	Action Taken
	environment, a more precise assessment of the actual effect of the Facility will only be possible through data analysis. Consequently, having consistent data available over a period of at least five years will increase the size of the data sample and ultimately allow for more reliable analyses and results.		
	Furthermore, maintaining all records for a longer period of time will also benefit the Permittee who will be able to track the functioning of the plant and maintain the Facility in optimal condition. In fact, analyzing monitoring data trends and making comparisons throughout the life-span of the Facility may lead the Permittee to anticipate potential wear and tear and adjust their maintenance schedule in order to avoid unforeseen breakdowns. In the long run, this measure may also decrease the overall costs incurred by the Permittee.		
3	The installation of two additional subsurface seawater intake wells is preferable to open ocean intake wells; however, it does not lessen the potential for intake or mortality of marine life unless the open ocean intake pipes are decommissioned.	The Pebbly Beach Desalination Plant (Facility) does not have open ocean intake pipes. The Facility uses subsurface seawater intake wells to collect the water used in the desalination process.	None necessary.
	The current language in Attachment F Section II.B states that "the installation of two additional subsurface seawater intake wells will likely result in even less potential for the intake or mortality of marine life." We find this language to be inaccurate and misleading.	The language in Section II.B. of Attachment F, which describes the performance of the subsurface seawater intake wells with regard to intake and mortality of marine life has been changed based on the comments received from Southern California Edison, see Table 1 - Response to Comment number 4.	
	While subsurface intake wells are certainly preferable to above surface intake wells, the installation of two additional intake wells of any sort will create more potential overall for the intake or mortality of marine life. The above mentioned statement contradicts the statement that immediately precedes it in the same paragraph: "recent testing of the two current wells demonstrated that intake or mortality of all		

Comment Number	Comment	Response	Action Taken
	forms of marine life at the well is minimal." Thus, while the intake or mortality is minimal, it is nonetheless existent. Consequently, it would constitute a logical fallacy to state that the installation of two additional wells would result in "even less" potential for the intake or mortality of marine life. We recommend that the following statement be stricken from Attachment F Section II.B in order to avoid misleading readers:		
	"Recent testing of the two current wells demonstrated that intake or mortality of all forms of marine life at the wells is minimal. The installation of two additional subsurface seawater intake wells will likely result in even less potential for the intake or mortality of marine life."		
	Additionally, considering the larger impact that open ocean intake has on marine life when compared to subsurface intake, we recommend that the Permittee pursue using subsurface intake only. The existing open ocean intake pipes should be either decommissioned, or used only when necessary while using the subsurface intake pipes as the primary intake to the Facility	The Pebbly Beach Desalination Plant (Facility) does not have open ocean intake pipes. The Facility has two existing subsurface seawater intake wells and a subsurface pipeline to convey seawater to the desalination plant.	None necessary.
4.a	The Permittee must be liable for any and all effluent limit exceedances, even during the event of an Upset or Anticipated Bypass. Under the Tentative Order, a Bypass is defined as the "intentional diversion of waste streams from any portion of the treatment facility. (40 CFR section 122.41 (m)(1)(i))." Although Bypass is prohibited unless certain stringent conditions are met, the Tentative Order states: "The Regional Board may take enforcement action against the Discharger for bypass unless [] (40 CFR section 122.41 (m)(4)(i))." We recommend that this language be changed to:	The language referenced in the Standard Provisions has been taken from 40 CFR Part 122.41(m), which uses the word "may". The word "may" will remain in the Standard Provisions.	None necessary.

Comment Number	Comment	Response	Action Taken
	"The Regional Water Board may shall take enforcement action against the Discharger for bypass unless []."		
4.b.	Reporting for anticipated non-compliance or modifications cannot lead to unenforced violation of water quality standards. The Tentative Order states "The Permittee shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR section 122.41(I)(2).)" We suggest the following clarifying language to Attachment D, section V.G., to ensure that the Regional Water Board review the proposed changes/anticipated non-compliance and determine if this is allowable, and to ensure that other parties should be able to review the proposal and provide comments on the potential impact the proposal will have: "The Permittee shall give advance notice to the submit a plan for Regional Water Board approval of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR section 122.41(I)(2).) Reporting anticipated noncompliance does not preclude enforcement action by the Regional Water Board in the event of effluent limit violations under this permit during the period of anticipated noncompliance."	Attachment D - Standard Provisions includes the stated section, "Section V.G." of the Tentative Order. The quoted language was derived from (40 CFR § 122.41(I)(2)) and is also standard language included in all permits for industrial discharges issued in this Region. Responses to requests for permit modifications are typically sent to the entire interested parties list. In addition, Section VI.A.2.m. of the Tentative Order includes a provision that requires the Discharger to submit to the Regional Water Board a report of waste discharge at least 180 days before making any material change or proposed change in the character, location or volume of the discharge. The ROWD is reviewed by Regional Water Board and any modification, will also require public notice, and approval by the Regional Water Board or the Executive Officer. The proposed clarifying language was not included.	None necessary.