

## **CALIFORNIA COASTAL COMMISSION**

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# **W22b**

**3-20-0014**

**(PURE WATER SOQUEL PROJECT)**

**MARCH 11, 2020 HEARING**

### **EXHIBITS**

- Exhibit 1** – Project Overview
- Exhibit 2** – Tertiary Treatment Facility at SC WWTF – Project components
- Exhibit 3** – Tertiary Treatment Facility at SC WWTF – Preliminary Site Plan
- Exhibit 4** – Tertiary Treatment Facility at SC WWTF – Existing Conditions
- Exhibit 5** – Tertiary Treatment Facility at SC WWTF – Visual Simulation
- Exhibit 6** – San Lorenzo River Crossing
- Exhibit 7** – Monterey Ave Well Site – Location and Existing Conditions
- Exhibit 8** – Monterey Ave Well Site Plan
- Exhibit 9** – Monterey Ave Well Site – before/after Photo Simulations
- Exhibit 10** – Mitigation Monitoring and Reporting Program
- Exhibit 11** – Correspondance in Opposition of Project
- Exhibit 12** – District response to Opposition
- Exhibit 13** – FEMA Flood Map for SC WWTF
- Exhibit 14** – Photos of Flood Protection system at SC WWTF





SOURCE: USDA, 2014; CARI, 2016; USGS, 2016; ESRI, 2012; ESA, 2017

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention . 160164

**Figure 1**

Pure Water Soquel Project Overview

**Exhibit 1**

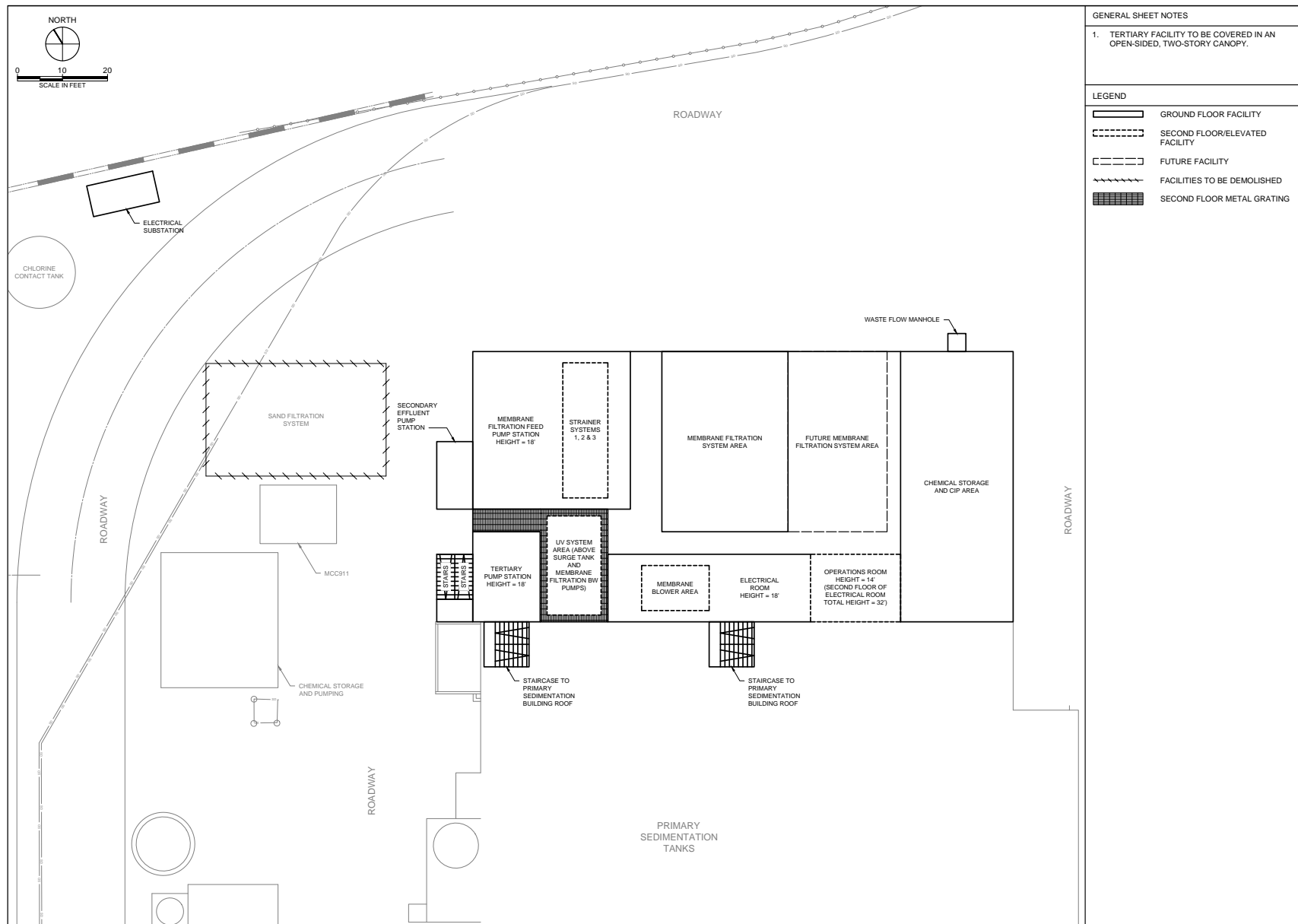
**3-20-0014**

**1 of 1**





Given the unknown nature of existing underground utilities, pipeline corridors are envisioned to be 8-ft wide to route the new pipelines through the WWTF.



SOURCE: Brown and Caldwell, 2019

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention .160164

**Figure 3**  
**Tertiary Treatment Facility Preliminary Site Plan**  
**Exhibit 3**  
**3-20-0014**  
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Photo 1 - Area 1, as viewed from within the SC WWTF perimeter fencing, looking west.



Photo 2 - Area 2, as viewed from within the SC WWTF perimeter fencing, looking southwest.



Photo 3 - Area 3, as viewed from within the SC WWTF perimeter fencing, looking northwest.



Photo 4 - Construction Staging Area, as viewed from within the SC WWTF perimeter fencing, looking southeast.

SOURCE: Soquel Creek Water District, 2019

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**Figure 4a**  
**Photographs of Potential Project Sites at the SC WWTF**  
**Exhibit 4**  
**3-20-0014**  
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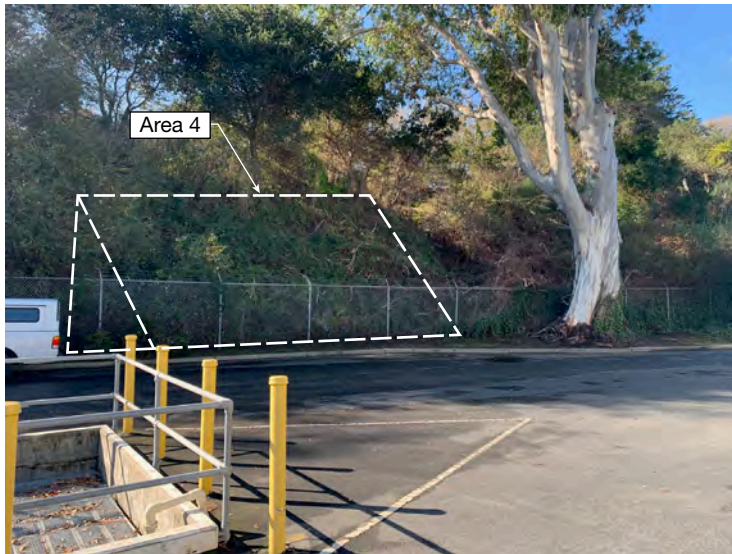


Photo 5 - Area 4, as viewed from within the SC WWTF perimeter fencing, looking southwest.



Photo 6 - Area 4 (foreground) and existing SC WWTF substation (background), as viewed from within SC WWTF perimeter fencing, looking west.



Photo 7 - Existing SC WWTF substation (foreground) and Area 4 (background), as viewed from within SC WWTF perimeter fencing, looking southeast.



Photo 8 - SC WWTF portal box which will provide connection between the proposed reverse osmosis concentrate pipeline (see Figure 2) and the existing 72-inch-diameter tunnel to ocean outfall, as viewed from within the SC WWTF perimeter fencing, looking southeast.

SOURCE: Soquel Creek Water District, 2019

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention . 160164





Photo 1 - Northeast-facing View across Bay Street

SOURCE: ESA, 2018

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention. 160164

**Figure 5**  
View towards SC WWTF from La Barranca Park  
**Exhibit 4**  
**3-20-0014**  
**3 of 4**





Photo A - SC WWTF dewatering tower and storage area, as viewed from Neary Lagoon Park, looking south



Photo B - SC WWTF storage area, as viewed from Neary Lagoon Park, looking southeast



Proposed new building



SOURCE: Brown & Caldwell, 2019

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**Figure 7**

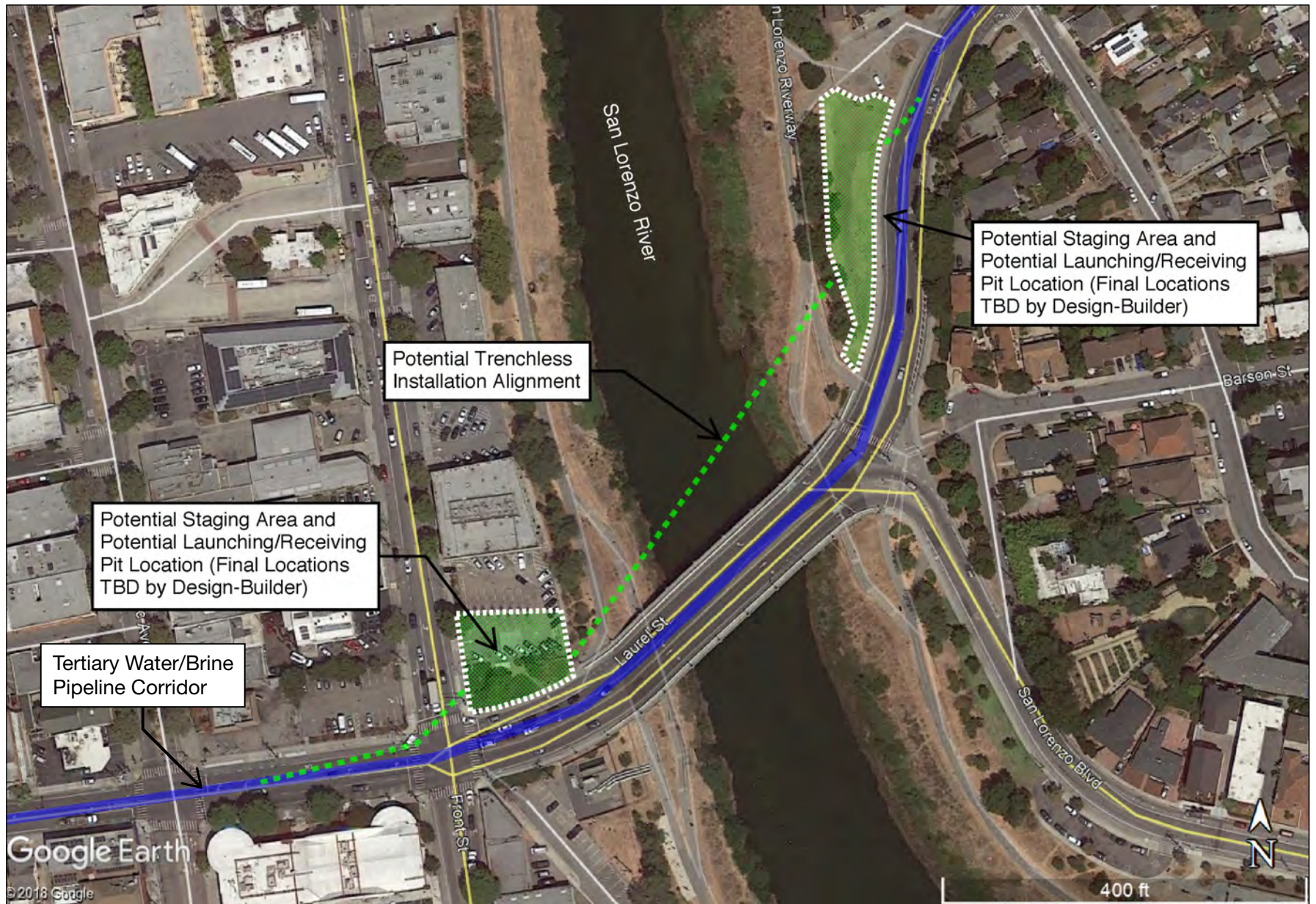
Visual Simulation of Tertiary Treatment Facility

**Exhibit 5**

**3-20-0014**

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SOURCE: Brown & Caldwell, 2019

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention . 160164

**Figure 19**

San Lorenzo River Pipeline Crossing Site Plan

**Exhibit 6**

**3-20-0014**

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SOURCE: ESA, 2018

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention. 160164

**Figure 8**

North-Facing View towards Well Site from Monterey Avenue

**Exhibit 7**  
**3-20-0014**  
**1 of 2**





**Figure 9** - Monterey Avenue Well Site - Existing chlorine, electrical control, and well enclosures and power pole, as viewed from within existing perimeter fencing.



**Figure 10** - Monterey Avenue Well Site - Existing water treatment vessels and underground concrete basin, as viewed from within existing perimeter fencing.





SOURCE: Brown & Caldwell, 2019

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention . 160164

**Figure 11**  
Monterey Well Site Plan

**Exhibit 8**  
**3-20-0018**  
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#### Before

Site looking east, as viewed from within perimeter fencing.



#### After

Site looking east, as viewed from within perimeter fencing. Removal of all above ground structures, piping and treatment vessels. Concrete vault pad remains. Addition of recharge well and backwash pump along with motor control center. Vegetation cut back and introduction of gravel.





#### Before

Site looking south, as viewed from within perimeter fencing.



#### After

Site looking south, as viewed from within perimeter fencing.  
Removal of all above ground structures, piping  
and treatment vessels. Concrete vault pad remains.





SOURCE: Brown & Caldwell, 2019

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention . 160164

**Figure 14**  
Visual Simulation of Monterey Avenue SWIP Well Site,  
as Viewed from within Perimeter

**Exhibit 9**

**3-20-0014**

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## **EXHIBIT B**

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# **Mitigation Monitoring and Reporting Program for Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention Project**

## **Introduction**

The California Environmental Quality Act (CEQA) requires that when a public agency makes findings pursuant to Public Resource Code Section 21081 before approving a project that would result in one or more significant impacts on the environment, the agency must adopt a reporting or monitoring program for mitigation measures incorporated into a project or imposed as conditions of approval. The program must be designed to ensure compliance during project implementation (Public Resource Code Section 21081.6).

This Mitigation Monitoring and Reporting Plan (MMRP) for the Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention Project (Project) will be in place through all phases of the Project, including design and construction, and will help ensure that Project objectives are achieved. As the CEQA Lead Agency, the Soquel Creek Water District (District) is responsible for verifying that the provisions of the MMRP as a whole are carried out, pursuant to Section 15097(a) of the CEQA Guidelines. The District may delegate reporting or monitoring responsibilities to a private entity such as a Project contractor who accepts the delegation; however, until mitigation measures have been completed, the District remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program. The District will ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected.

The following table identifies the mitigation measures by resource area. The table also provides the specific mitigation monitoring requirements, including implementation documentation, monitoring activity, timing, and responsible monitoring party. The District and its contractor(s) shall be responsible for implementation of all mitigation measures. The MMRP table presents the mitigation measures adopted for the Project by the District. The table also includes improvement measures which are not required under CEQA to reduce an impact to a less-than-significant level, but have been added to the Project at the suggestion of regulatory agencies with jurisdiction over the corresponding resource. The purpose of the table is to provide a single comprehensive list of the measures that will be implemented to avoid or reduce impacts of the Project on the environment, the timing for their implementation, and related monitoring and reporting requirements.



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Air Quality</b>				
<p><b>Impact 4.3-1:</b> The Project could generate emissions of criteria air pollutants that could contribute to a violation of an ambient air quality standard during construction.</p>	<p><i>Mitigation Measure 4.3-1a applies to all Project components.</i></p> <p><b>Mitigation Measure 4.3-1a: Construction Emissions Reduction Plan.</b></p> <p>The District (and/or its construction contractor(s)) shall develop and implement a Construction Emissions Reduction Plan to substantiate that Project construction-related NO<sub>x</sub> emissions would not exceed the Monterey Bay Air Resources District (MBARD)'s significance threshold of 137 pounds per day. The plan shall identify a feasible approach to reduce daily emissions that includes limits on the amount of construction activity that shall be conducted simultaneously on any given day, and if necessary to reduce emissions to below the NO<sub>x</sub> significance threshold, include a commitment for certain diesel-fueled off-road construction equipment of more than 50 horsepower to meet U.S. Environmental Protection Agency (USEPA) Tier 4 emission standards, and/or a commitment to use alternative fuels for certain construction equipment and vehicles.</p> <p>The plan shall identify the parameters for phasing construction activities associated with each of the Project components to reduce daily construction emissions of NO<sub>x</sub>. For example, limiting daily construction activities to activities at one pipeline site and at either the Chanticleer Site or at one of the well sites would be sufficient to reduce NO<sub>x</sub> emissions to less than 137 pounds per day. In addition, although off-road construction equipment at the Chanticleer, Headquarters-West Annex, SC WWTF, Willowbrook Lane Recharge Well, and Monterey Avenue Recharge Well Sites would be required to meet USEPA Tier 4 emission standards or otherwise be equipped with Level 3 diesel particulate filters per requirements of Mitigation Measure 4.3-4, the Construction Emissions Reduction Plan may include an additional commitment to use a certain percentage of Tier 4 compliant equipment and/or equipment fueled by alternative fuels associated with pipeline construction. The identified construction phasing parameters and the percentage of Tier 4 compliant equipment and/or equipment fueled by alternative fuels associated with pipeline construction would be substantiated within the Plan to define how the resulting emissions would be less than 137 pounds NO<sub>x</sub> per day using either the air emissions calculations prepared for the Environmental Impact Report or other air emissions calculations estimated using the CalEEMod emissions model.</p> <p>If the Plan includes a commitment that a certain percentage of pipeline-related off-road equipment would be Tier 4 compliant and/or fueled by alternative fuels, then it shall identify the initial pipeline construction equipment listing with each off-road unit's horsepower, certified tier specification status, and the associated maximum daily NO<sub>x</sub> emissions. As new or replacement construction equipment are required, the District shall document each unit's horsepower, certified engine tier status, and associated maximum daily NO<sub>x</sub> emissions, consistent with the Plan prior to use on the Project.</p>	<p>The District will be responsible for implementation.</p> <p>The District will ensure that contractor specifications adhere to the Construction Emissions Reduction Plan.</p> <p>The District will document each unit's horsepower, certified engine tier status, and associated maximum daily NO<sub>x</sub> emissions, consistent with the Plan prior to use on the Project.</p>	<p>Plan will be developed prior to commencement of construction.</p> <p>Plan will be implemented during construction</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p>



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Air Quality (cont.)</b>				
<b>Impact 4.3-1</b> (cont.)	<p><i>Mitigation Measure 4.3-1b applies to all Project components.</i></p> <p><b>Mitigation Measure 4.3-1b: Idling Restrictions.</b></p> <p>To ensure that idling time for on road vehicles with a gross vehicular weight rating of 10,000 pounds or greater does not exceed the five-minute limit established in Section 2485 of Title 13 CCR Section 2485, and that idling time for off-road engines does not exceed the five minute limit established in Title 13 CCR Section 2449(d)(3), the District and/or its construction contractor(s) shall prepare and implement a written idling policy and distribute it to all equipment operators. Clear signage of these requirements shall be provided for construction workers at all access points to construction areas.</p>	<p>The District will be responsible for implementation.</p> <p>The District will ensure that contractor specifications adhere to the idling restrictions policy.</p>	<p>Policy will be developed and signs posted prior to commencement of construction.</p> <p>Policy will be implemented during construction.</p>	The District will be responsible for monitoring and enforcement, as well as documenting compliance.
	<p><i>Improvement Measure 4.3-1x applies to all Project components.</i></p> <p><b>Improvement Measure 4.3-1x. Construction Dust Best Management Practices</b></p> <p>To the extent feasible, the District should implement the following best management practices during construction:</p> <ul style="list-style-type: none"> <li>• Prohibit all grading activities during periods of high wind (over 15 mph)</li> <li>• Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.</li> <li>• Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days)</li> <li>• Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations, or hydro-seed area.</li> <li>• Maintain at least 2'0" of freeboard in haul trucks.</li> <li>• Cover all trucks hauling dirt, sand, or loose materials.</li> <li>• Plant vegetative ground cover in disturbed areas as soon as possible.</li> <li>• Cover inactive storage piles.</li> <li>• Install wheel washers or other appropriately effective track-out capture methods at the construction site for all exiting trucks.</li> <li>• Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Air District shall be visible to ensure compliance with Rule 402 (Nuisance).</li> </ul>	<p>The District will ensure that contractor specifications include construction dust best management practices, as feasible.</p> <p>Construction contractor will be responsible for implementation.</p>	Best Management Practices to be implemented during construction, as feasible.	The District will be responsible for monitoring.



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Air Quality (Cont.)</b>				
<b>Impact 4.3-3:</b> Project construction activities could conflict with implementation of the applicable air quality plan.	<b>Mitigation Measure 4.3-1a: Construction Emissions Reduction Plan.</b> (See Impact 4.3-1 in Section 4.3, <i>Air Quality</i> for description.)			
	<b>Mitigation Measure 4.3-1b: Idling Restrictions.</b> (See Impact 4.3-1 in Section 4.3, <i>Air Quality</i> for description.)			
<b>Impact 4.3-4:</b> Project construction could expose sensitive receptors to substantial pollutant concentrations.	<p><i>Mitigation Measure 4.3-4 would apply to all on-site construction activities at the Chanticleer, Headquarters-West Annex, SC WWTF, Willowbrook Lane Recharge Well, and Monterey Avenue Recharge Well Sites.</i></p> <p><b>Mitigation Measure 4.3-4: Equipment with Tier 4 Engines.</b></p> <p>The District (and/or its construction contractor(s)) shall ensure that any Project-related diesel-powered equipment used during construction activities at the Chanticleer, Headquarters-West Annex, SC WWTF, Willowbrook Lane Recharge Well, and/or Monterey Avenue Recharge Well sites have engines that meet USEPA-certified Tier 4 standards or are otherwise equipped with Level 3 diesel particulate filters.</p>	The District will ensure that all diesel-powered equipment at the specified Project sites have engines that meet Tier 4 standards or are otherwise equipment with Level 3 diesel particulate filters.	District will ensure implementation during construction.	The District will be responsible for monitoring and enforcement, as well as for documenting compliance.
<b>Biological Resources</b>				
<b>Impact 4.4-1:</b> Project construction and operation could have a substantial adverse effect, either directly or through habitat modifications, on a species identified as candidate, sensitive or special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration.	<p><b>Mitigation Measure 4.4-1a: Perform preconstruction nesting bird surveys in areas that provide suitable habitat.</b></p> <p><i>Mitigation Measure 4.4-1 applies to all Project components.</i></p> <p>Project construction activities should avoid the nesting season of February 15 through August 31, if feasible. If seasonal avoidance is not possible, then no sooner than 30 days prior to the start of any Project activity, a biologist experienced in conducting nesting bird surveys shall survey the Project area and all accessible areas within 500 feet for nesting birds. If nesting birds are identified, the biologist shall define a suitable protective buffer around the nest and no activities shall occur within this buffered area. The buffer area limits would ensure that construction activities would not cause an adult to abandon an active nest or young or change an adult's behavior so it could not care for an active nest or young. Typical buffers are 150 feet for songbirds and 300 feet for raptors, but may be decreased in coordination with CDFW according to site-specific, Project-specific, activity-specific considerations such as visual barriers between the nest and the type of activity, decibel levels associated with the activity relative to baseline noise levels, and the species of nesting bird and its tolerance of the activity. Construction activities that are conducted within any reduced buffers may be conducted in the presence of a qualified biological monitor, until the biological monitor determines that the reduced buffer is effective.</p>	<p>The District will ensure this requirement is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging the qualified biologist and ensuring site access.</p> <p>The qualified biologist will be responsible for implementation on site.</p>	Prior to and during construction.	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p> <p>The buffer area limits would ensure that construction activities would not cause an adult to abandon an active nest of eggs or young, or change an adult's behavior such that it would interfere with incubation, brooding or feeding.</p> <p>If work is stopped for a period of 14 days or more during the nesting bird season, a new pre-construction survey will be conducted prior to the commencement of construction activities.</p>



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<p><b>Mitigation Measure 4.4-1b: Perform preconstruction bat surveys.</b></p> <p><i>Applies to Headquarters-West Annex site, Chanticleer site, conveyance pipeline stream crossings 3 - 18, and the Willowbrook Lane. Twin Lakes Church, and Cabrillo College South Recharge Well sites.</i></p> <p>In advance of tree and structure removal, a preconstruction survey for special-status bats shall be conducted by a qualified biologist to characterize potential bat habitat and identify active roost sites within the Project site. Should potential roosting habitat or active bat roosts be found in trees and/or structures to be removed under the Project, the following measures shall be implemented:</p> <ul style="list-style-type: none"> <li>Removal of trees and structures shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, and outside of bat maternity roosting season (approximately April 15 – August 31) and outside of months of winter torpor (approximately October 15 – February 28), to the extent feasible.</li> <li>If removal of trees and structures during the periods when bats are active is not feasible and active bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the Project site where tree and structure removal is planned, a no-disturbance buffer of 100 feet shall be established around these roost sites until they are determined to be no longer active by the qualified biologist.</li> <li>The qualified biologist shall be present during tree and structure removal if active bat roosts, which are not being used for maternity or hibernation purposes, are present. Trees and structures with active roosts shall be removed only when no rain is occurring or is forecast to occur for three days and when daytime temperatures are at least 50°F.</li> <li>Removal of trees with active or potentially active roost sites shall follow a two-step removal process: <ol style="list-style-type: none"> <li>On the first day of tree removal and under supervision of the qualified biologist, branches and limbs not containing cavities or fissures in which bats could roost, shall be cut only using chainsaws.</li> <li>On the following day and under the supervision of the qualified biologist, the remainder of the tree may be removed, either using chainsaws or other equipment (e.g. excavator or backhoe).</li> </ol> </li> </ul>	<p>The District will ensure this measure is incorporated in the contractor's specifications</p> <p>The district will be responsible for engaging the qualified biologist and ensuring site access.</p> <p>The qualified biologist will be responsible for implementation on site.</p>	Prior to and during construction.	The District will be responsible for monitoring and enforcement, as well as documenting compliance.



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1</b> (cont.)	Removal of structures containing or suspected to contain active bat roosts, which are not being used for maternity or hibernation purposes, shall be dismantled under the supervision of the qualified biologist in the evening and after bats have emerged from the roost to forage. Structures shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost.			
	<p><b>Mitigation Measure 4.4-1c: Provide Construction Monitoring near Sensitive Habitats.</b></p> <p><i>Applies to sensitive habitats within the Project site, including conveyance pipeline stream crossings, and coastal terrace prairie.</i></p> <p>Construction activities, including equipment staging, spoils piles, parking or development of bore pits, occurring off pavement and within 100 feet of mixed riparian woodland and within 100 feet of coastal terrace prairie habitat between 7th Ave. and 17th Ave. shall be monitored by a qualified biologist.<sup>1</sup> Prior to the initiation of construction, the District and/or representatives of the District shall retain a qualified biologist to oversee compliance with avoidance and minimization measures for all special-status species and sensitive habitats. The qualified biologist shall be onsite daily during all fencing, grading and ground disturbance activities in the above areas.</p> <p>The qualified biologist shall have in their possession a copy of all compliance measures while work is being conducted onsite, and shall ensure that District's onsite representatives and contractors also maintain copies of the compliance measures on the site. To facilitate the qualified biologist's role, District shall ensure that the qualified biologist is fully apprised of all decisions that change or materially affect the schedule, methods, and location of work that is subject to the protective measures for biological resources.</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging the qualified biologist and ensuring site access.</p> <p>The qualified biologist will be responsible for implementation on site.</p>	Prior to construction for engaging biologist and monitoring during construction.	The District will be responsible for monitoring and enforcement, as well as documenting compliance.
	<p><b>Mitigation Measure 4.4-1d: Construction Worker Environmental Awareness Training and Education Program.</b></p> <p><i>Applies to the entire Project area including water purification facilities, conveyance system and recharge wells.</i></p> <p>Prior to starting work, all construction workers at the Project areas shall attend a Construction Worker Environmental Awareness Training and Education Program developed and presented by a qualified biologist.</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging the qualified biologist and ensuring site access.</p>	Within 24 hours of the start of construction, (e.g., the morning of the first day of construction).	The District will be responsible for enforcement and documenting compliance by maintaining a record of workers who have received Environmental Awareness Training (e.g., sign-in sheet).

<sup>1</sup> The term "qualified biologist" is defined as an individual who shall possess, at a minimum, a bachelor's degree in biology, ecology, wildlife biology or closely related field. The term "biological monitor" or "qualified biological monitor" is defined as holding similar educational credentials to those of a qualified biologist and who has functioned as an environmental inspector or monitor on at least two construction projects within the preceding two years.



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<p>The program shall include information on federal and state-listed species in the study area, as well as other special-status wildlife and plant species and sensitive natural communities that may be encountered during construction activities. The training shall include: information on special-status species' life history and legal protections; the definition of "take" under the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA); the measures the District and/or its contractors have committed to implementing to protect special-status species and sensitive natural communities; reporting requirements and communication protocols; specific measures that each worker shall employ to avoid "take" of special-status species; and penalties for violation of FESA and/or CESA. Training shall be documented as follows:</p> <ol style="list-style-type: none"> <li>1. An acknowledgement form shall be signed by each worker indicating that environmental training has been completed.</li> <li>2. A sticker shall be placed on hard hats indicating that the workers have completed the environmental training. Construction workers shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker.</li> <li>3. A copy of the training transcript/training video and/or DVD, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms, shall be submitted to the District.</li> </ol>	The qualified biologist will be responsible for implementation on site, including having recipients of the training sign a sign-in sheet.		
	<p><b>Mitigation Measure 4.4-1e: General Avoidance and Protection Measures.</b></p> <p><i>Applies to the entire Project area including water purification facilities and recharge wells.</i></p> <p>The District shall ensure that the following general measures are implemented by the contractor(s) during construction to avoid or minimize impacts on biological resources:</p> <ul style="list-style-type: none"> <li>• Within natural habitat, the construction contractor(s) shall minimize the extent of the construction disturbance as much as feasible by defining the project boundary with stakes, rope or equivalent and working within that area at all times.</li> <li>• Staging areas shall be located at least 50 feet from riparian habitat, creeks, and wetlands.</li> <li>• If vehicle or equipment fueling or maintenance is necessary, it shall be performed at least 50 feet from riparian habitat, creeks, and wetlands.</li> </ul>	The District will ensure this measure is incorporated in the contractor's specifications.	During construction.	The District will be responsible for monitoring and enforcement, as well as documenting compliance.

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<p><b>Mitigation Measure 4.4-1f: Avoidance and Minimization Measures for Western Pond Turtle and Santa Cruz Black Salamander.</b></p> <p><i>Applies to all conveyance pipelines within 100 feet of streams (pond turtle) and within 100 feet of the pipeline alignment along the railroad tracks north of Schwan Lagoon, between 7th Avenue and the parking lot for Simpkins Family Swim Center (pond turtle and black salamander).</i></p> <p>Preconstruction surveys for western pond turtle (WPT) and Santa Cruz black salamander (SCBS) shall be conducted by a qualified biologist prior to vegetation removal, development of bore pits, equipment staging or other off pavement construction-related activity, as specified below:</p> <ol style="list-style-type: none"> <li>1. Prior to conducting the surveys, the qualified biologist shall prepare a relocation plan that describes the appropriate survey and handling methods for WPT and SCBS and identify nearby relocation sites where individuals would be relocated if found during the preconstruction surveys. The relocation plan shall be submitted to CDFW for review prior to the start of construction activities and any relocations. The animal shall be relocated to a similar type of habitat or better from where it was relocated.</li> <li>2. Preconstruction surveys shall be conducted within 5 days prior to, and again immediately prior to, vegetation removal or grading to identify any WPT and SCBS.</li> <li>3. If WPT or SCBS are observed within the construction area, a qualified biologist shall relocate the individual according to the relocation plan above.</li> <li>4. The qualified biologist shall monitor vegetation removal and grading in the vicinity of Schwann Lagoon, between 7th Ave and the parking lot for Simpkins Family Swim Center to identify and relocate pond turtle and black salamander as necessary.</li> </ol>	<p>The District will be responsible for preparing the plan and submitting to CDFW.</p> <p>The District will ensure this measure is incorporated in the contractor's specifications, and that the contractor has the CDFW-approved plan.</p> <p>District will be responsible for engaging qualified biologist and ensuring they have site access.</p> <p>The qualified biologist will be responsible for implementation on site.</p>	<p>Relocation plan submitted to CDFW prior to construction.</p> <p>Pre-construction surveys to occur within 5 days of start of construction and immediately before vegetation removal or grading.</p> <p>Biological monitoring of vegetation removal will occur during construction.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p> <p>CDFW will review any relocation plan for WPT and SCBS prior to construction.</p> <p>Qualified Biologist will be responsible for monitoring for WPT and SCBS during construction.</p>
	<p><b>Mitigation Measure 4.4-1g: Avoidance and Protection Measures for Ohlone Tiger Beetle.</b></p> <p><i>Applies to coastal terrace prairie north of Schwan Lagoon within 100 feet of the pipeline alignment along the railroad tracks north of Schwan Lagoon, between 7th Avenue and the parking lot for Simpkins Family Swim Center.</i></p> <p>A habitat survey for Ohlone tiger beetle (OTB) shall be conducted within 100 feet of the pipeline alignment by a qualified entomologist to determine if suitable OTB habitat is present. The survey should be conducted prior to the start of construction-related activity, including clearing and grubbing, materials staging, and installation of fencing near coastal terrace prairie</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications</p> <p>The District will be responsible for engaging the qualified entomologist and ensuring site access.</p> <p>The qualified entomologist will be responsible for implementation of surveys on site.</p>	<p>Habitat survey and presence/absence survey, and marking avoidance buffers prior to construction, including prior to clearing and grubbing, staging and installing fencing near coastal prairie habitat.</p> <p>Habitat restoration to occur following construction, as applicable.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p>



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<p>habitat. The exact timing shall be decided in consultation with the entomologist to allow enough time for completion of presence/absence surveys, if necessary, prior to the start of construction. If the entomologist determines that there is no suitable OTB habitat within 100 feet of the study area, no further action is required.</p> <p>If suitable OTB habitat is present, the qualified entomologist shall conduct a presence/absence survey to determine if OTB is present within 100 feet of the Project area. If OTB is not present, no further action is required.</p> <p>If OTB is present within 100 feet of the Project area, the entomologist will identify the configuration of occupied habitat and shall mark areas occupied by OTB with pin flags, rope, or another equivalent method. Project construction activities shall avoid areas occupied by OTB. If occupied habitat cannot be avoided, the entomologist shall be consulted to determine whether relocation of OTB is feasible and to identify a relocation site. If relocation is not feasible, the District shall compensate for permanent impacts to OTB by restoring habitat per <b>Mitigation Measure 4.4-11 (Habitat Monitoring Plan)</b>.</p>	The District will be responsible for restoring OTB habitat.		
	<p><b>Mitigation Measure 4.4-1h: Avoidance and Protection of Overwintering Monarch Butterfly Colonies.</b></p> <p><i>Applies to Soquel Creek riparian corridor directly adjacent to the conveyance pipeline alignment on Wharf Road, between Pacific Coast Manor on the southern end and Soquel Wharf Road on the northern end; the eucalyptus grove adjacent to the pipeline alignment at Kennedy Road and Park Avenue; and the eucalyptus grove adjacent to Cabrillo College Drive near Stream Crossing 17.</i></p> <p>Construction activities in and around documented butterfly overwintering sites shall occur outside of the overwintering season (November 1 to March 31), to the greatest extent feasible, to avoid potential impacts on overwintering monarch butterflies. However, when it is not feasible to avoid the overwintering season and construction activities take place during this time, the following measures shall apply:</p> <ul style="list-style-type: none"> <li>• Preconstruction surveys shall be conducted for overwintering monarch butterfly sites within 100 feet of the construction areas.</li> <li>• Surveys for overwintering aggregations of monarch butterflies shall be conducted over the winter season (November to first week of March) prior to construction activities. A minimum of two surveys shall be conducted: one in late November and the other during the week of January 1. Surveys shall follow survey methods specified by the Xerces Society for Invertebrate Conservation (Xerces, 2004).</li> </ul>	<p>The District will ensure measure's construction scheduling restrictions are incorporated in the contract specifications, to the extent feasible.</p> <p>The District will be responsible for engaging a qualified biologist and ensuring site access for preconstruction surveys.</p> <p>The qualified biologist will be responsible for implementation on site.</p> <p>The qualified biologist will document findings of surveys and develop avoidance measures as appropriate.</p> <p>The qualified biologist will coordinate with CDFW on avoidance measures.</p>	Prior to and throughout construction.	The District will be responsible for monitoring and enforcement, as well as documenting compliance.

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<ul style="list-style-type: none"> <li>If an active overwintering site is located, work activities shall be delayed within 100 feet of the site location until avoidance measures have been implemented. Appropriate avoidance measures shall include the following measures (which may be modified as a result of coordination with the CDFW to provide equally effective measures): <ul style="list-style-type: none"> <li>If the qualified biologist determines that construction activities would not affect an active overwintering site, activities may proceed without restriction.</li> <li>A minimum 100-foot no-disturbance buffer shall be established around the overwintering site to avoid disturbance or destruction until after the overwintering period has ended. If site conditions warrant a smaller buffer, the extent of the no-disturbance buffer may be decreased by the qualified biologist in coordination with CDFW.</li> <li>Throughout the year, the District shall avoid removing or trimming trees utilized by monarch butterflies or trees adjacent to the winter roost to prevent indirect changes to the humidity, wind exposure, and temperature within the immediate vicinity of the roost site. Any routine tree trimming shall be done between April and August to eliminate the risk of disturbance to monarch colonies, and shall be conducted under the guidance of a qualified monarch butterfly specialist if butterflies have been documented in the Project area.</li> </ul> </li> </ul>	The District will implement tree trimming restrictions as determined by qualified biologist.		
	<p><b>Mitigation Measure 4-4.1i: Avoidance and Minimization Measures for Special-Status Plants.</b></p> <p><i>Applies to the conveyance pipeline alignment along the railroad tracks north of Schwan Lagoon, between the Simpkins Family Swim center parking lot and Stream Crossing-15.</i></p> <p>Botanical surveys shall be conducted in accordance with CDFW's <i>Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities</i> (CDFG, 2009). Surveys shall maximize the likelihood of locating special-status species, be floristic in nature, include areas of potential indirect impacts, be conducted in the field at the time of year when species are both evident and identifiable, and be replicated and spaced throughout the growing season to accurately determine what plants exist on the site. Special care shall be taken to survey the area north of Schwan Lagoon and immediately south of the Southern Pacific Rail Road alignment where Santa Cruz tarplant populations were observed between 1986 and 2007 (CDFW, 2018). If no special-status plants are identified, no further action is required to avoid or minimize impacts to these species.</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging qualified biologist and ensuring they have site access</p> <p>The qualified biologist will be responsible for implementation on site.</p>	<p>Prior to construction at the time of year when species are evident and identifiable.</p> <p>Following construction for implementation of the Habitat Monitoring Plan.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p> <p>The District will work in coordination with USFWS and/or CDFW, as applicable.</p>



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<p>If special-status plants are encountered in the work area, they should be avoided. If they cannot be avoided, the District shall, in coordination with the USFWS and/or CDFW (as applicable based on plant rarity), avoid plants through Project design, protect plants from construction activities through the use of exclusion fencing and signage, or relocate plants to other suitable habitat nearby.</p> <p>Prior to construction, staging areas shall be identified that avoid impacts to Santa Cruz tarplants and any other special-status plants identified, and construction exclusion fencing shall be used to define the work area and minimize disturbance to these areas. The fencing shall be maintained through the construction phase and monitored on a weekly basis during construction to ensure protection of tarplants and their habitat.</p> <p>If avoidance is not feasible, rare plants and their seeds shall be salvaged and relocated, and habitat restoration shall be provided to replace any destroyed special-status plant occurrences at a minimum 1:1 ratio (i.e., no net loss) or as specified by resource agencies based on area of lost habitat. Compensation for loss of special-status plant populations shall include the restoration or enhancement of temporarily impacted areas, and management of restored areas. Restoration or reintroduction shall be located on-site (i.e., at Schwan Lagoon). At a minimum, the restoration areas shall meet the following performance standards by the fifth year:</p> <ol style="list-style-type: none"> <li>The compensation area shall be at least the same size as the impact area.</li> <li>Vegetation cover and composition in special-status plant restoration areas near Schwan Lagoon shall emulate existing Santa Cruz tarplant reference populations.</li> <li>Monitoring shall demonstrate the continued presence of rare plants in the restoration area.</li> <li>Invasive species cover shall be less than or equal to the invasive species cover in the impact area.</li> </ol> <p>Additionally, restored populations shall have greater than the number of individuals of the impacted population, in an area greater than or equal to the size of the impacted population, for at least 3 consecutive years without irrigation, weeding, or other manipulation of the restoration site. The Habitat Monitoring Plan to be prepared in accordance with <b>Mitigation Measure 4.4-1I (Habitat Monitoring Plan)</b> shall detail the monitoring requirements and success criteria.</p>			

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<p><b>Mitigation Measure 4.4-1j: Avoidance and Minimization Measures for Native Stands of Monterey Pine.</b></p> <p><i>Applies to the pipeline alignment between Soquel Avenue and 7th Avenue; the pipeline alignment between the Simpkins Family Swim Center parking lot and 7th Avenue; the pipeline alignment along Wharf Road between Grace Street and Soquel Wharf Road; the pipeline alignment along Kennedy Drive; and the Willowbrook Recharge Well site.</i></p> <p>A qualified botanist or arborist shall conduct surveys for native stands of Monterey pine prior to completion of final Project design documents. Individual Monterey pine trees existing within the construction work area shall be evaluated to determine if they are native occurrences, relics, or otherwise naturally-occurring remnants of the past historic range. Maps depicting the results of these surveys shall be prepared for consideration during final facility design. Native stands of Monterey pine could occur at the identified facility sites and pipeline alignments based on the historical extent of native Monterey pines and biological reconnaissance surveys.</p> <p>Project construction activities shall be planned to avoid impacts on native stands of Monterey pine. Any native stands of Monterey pines located within the anticipated construction disturbance area shall be fenced or flagged for avoidance prior to construction, and a biological monitor shall be present to ensure compliance with off-limits areas.</p> <p>If removal of native stands of Monterey pine cannot be avoided, trees of a minimum dbh of 8 inches shall be replaced at a 2:1 ratio for trees removed or directly impacted by construction activities. Only local Monterey pine genetic stock shall be used for replanting at the Project site. Replacement plantings shall be planted contiguous with other individuals of the same species in areas that are determined to have suitable site conditions. Protective fencing shall be installed around the seedlings to protect against disturbance. Replacement trees shall be maintained and monitored for a period of five years and have a minimum of 70 percent survival in the fifth monitoring year to ensure success. The Habitat Monitoring Plan to be prepared in accordance with <b>Mitigation Measure 4.4-11 (Habitat Monitoring Plan)</b> shall detail the monitoring requirements and success criteria.</p> <p>This mitigation measures applies to native stands of Monterey pines. Independent of whether Monterey pines in the Project area are considered native stands, individual trees may be subject to local tree ordinances; see <b>Mitigation Measure 4.4-5 (Compliance with Local Tree Policies and Ordinances)</b>.</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging qualified biologist or arborist and ensuring they have site access.</p> <p>The qualified biologist or arborist will be responsible for implementation on site.</p> <p>The District will be responsible for replacement/replanting and subsequent 5 year maintenance, if applicable.</p>	<p>Prior to construction for survey.</p> <p>Following construction for replacement of trees.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p>



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<p><b>Mitigation Measure 4.4-1k: Control Measures for Spread of Invasive Plants.</b></p> <p><i>Applies to coastal terrace prairie north of Schwan Lagoon along the pipeline alignment along the railroad tracks north of Schwan Lagoon, from the Simpkins Family Swim Center parking lot to Stream Crossing-15.</i></p> <p>Construction best management practices shall be implemented in construction areas within or adjacent to lands with native plant communities that may be susceptible to non-native plant species invasion to prevent the spread of invasive plants, seed, propagules, and pathogens through the following actions:</p> <ol style="list-style-type: none"> <li>1. Avoid driving in or operating equipment in weed-infested areas outside of fenced work areas and restrict travel to established roads and rights of way.</li> <li>2. Avoid leaving exposed soil or construction materials in areas with the potential for invasive plants (e.g., in staging areas). Non-active stockpiles shall be covered with plastic or a comparable material.</li> <li>3. Clean tools, equipment, and vehicles before transporting materials and before entering and leaving worksites (e.g., wheel washing stations at Project site access points). Inspect vehicles and equipment for weed seeds and/or propagules stuck in tire treads or mud on the vehicle to minimize the risk of carrying them to unaffected areas. Designate areas within active construction sites for cleaning and inspections.</li> <li>4. Only certified, weed-free, plastic-free imported erosion control materials (or rice straw in upland areas) shall be used for the Project.</li> </ol>	The District will ensure this measure is incorporated in the contractor's specifications.	During construction.	The District will be responsible for monitoring and enforcement, as well as documenting compliance.
	<p><b>Mitigation Measure 4.4-1l: Habitat Monitoring Plan.</b></p> <p><i>Applies to any riparian, wetland or coastal terrace prairie habitat temporarily impacted by construction activities.</i></p> <p>If temporary disturbance to riparian, wetland or coastal terrace prairie habitat within the Project area cannot be avoided, and will be temporarily impacted by construction activities, the District shall develop and submit a Habitat Monitoring Plan (HMP) to the appropriate resource agencies (CCC, CDFW, CCRWQCB, USACE, USFWS, and local agencies that require a habitat mitigation and monitoring plan) for approval prior to Project construction. The HMP shall be a comprehensive document that describes all of restoration requirements, including the required performance standards, identified in Mitigation Measures 4-4.1i (Avoidance and Minimization Measures for Special Status Plants), 4.4-1j (Avoidance and Minimization Measures for Native Stands of Monterey</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications. The District will be responsible for engaging qualified biologist or arborist and ensuring they have site access</p> <p>The qualified biologist or arborist will be responsible for implementation on site.</p>	Prior to construction.	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance,</p> <p>in coordination with the appropriate resource agencies (CCC, CDFW, CCRWQCB, USACE, USFWS, and local agencies that require a habitat mitigation and monitoring plan).</p>

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1 (cont.)</b>	<p>Pine), 4.4-2a (Minimize Disturbance to Riparian Habitat), and 4.4-2b (Avoidance and Protection of Coastal Terrace Prairie).</p> <p>The MMP shall be implemented at all riparian, wetland or coastal terrace prairie habitats temporarily impacted by construction activities. The HMP shall outline measures to restore, improve, or re-establish riparian, wetland or coastal terrace prairie habitats on the site, and shall include the following elements:</p> <ol style="list-style-type: none"> <li>1. Name and contact information for the property owner of the land on which the mitigation will take place.</li> <li>2. Identification of the water source for supplemental irrigation, if needed.</li> <li>3. Identification of depth to groundwater.</li> <li>4. Topsoil salvage and storage methods for areas that support special-status plants.</li> <li>5. Site preparation guidelines to prepare for planting, including coarse and fine grading.</li> <li>6. Plant material procurement, including assessment of risk of introduction of plant pathogens through use of nursery-grown container stock vs. collection and propagation of site-specific plant materials, or use of seeds.</li> <li>7. Planting plan outlining species selection, planting locations and spacing, for each vegetation type to be restored.</li> <li>8. Planting methods, including containers, hydroseed or hydromulch, weed barriers and cages, as needed.</li> <li>9. Soil amendment recommendations, if needed.</li> <li>10. Irrigation plan, with proposed rates (in gallons per minute), schedule (i.e. recurrence interval), and seasonal guidelines for watering.</li> <li>11. Site protection plan to prevent unauthorized access, accidental damage and vandalism.</li> <li>12. Weeding and other vegetation maintenance tasks and schedule, with specific thresholds for acceptance of invasive species.</li> <li>13. Performance standards by which successful completion of mitigation can be assessed in comparison to a relevant baseline or reference site, and by which remedial actions will be triggered.</li> </ol>			



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-1</b> (cont.)	<p>14. Success criteria shall include the minimum performance standards described in Mitigation Measures 4-4.1i (Avoidance and Minimization Measures for Special Status Plants), 4.4-1j (Avoidance and Minimization Measures for Native Stands of Monterey Pine), 4.4-2a (Minimize Disturbance to Riparian Habitat), and 4.4-2b (Avoidance and Protection of Coastal Terrace Prairie) (see <b>Table 4.4-5</b>).</p> <p>15. Monitoring methods and schedule.</p> <p>16. Reporting requirements and schedule.</p> <p>17. Adaptive management and corrective actions, such as re-seeding, changes to the irrigation regime, and increased effort to control non-natives, to achieve the established success criteria.</p> <p>18. Educational outreach program to inform operations and maintenance departments of local land management and utility agencies of the mitigation purpose of restored areas to prevent accidental damages.</p>			
<p><b>Impact 4.4-2:</b> Project construction could have a substantial adverse effect on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration.</p>	<p><b>Measure 4.4-2a: Minimize Disturbance to Riparian Habitat.</b></p> <p><i>Applies to all stream crossings, Riparian Corridor-1, and riparian habitat within Willowbrook Park.</i></p> <p>If work is proposed adjacent to riparian habitat, riparian areas shall be clearly delineated with flagging by a qualified biologist. Riparian areas shall be separated and protected from the work area through silt fencing, amphibian-friendly fiber rolls, or other appropriate erosion control material. Bore pit locations, material staging, and all other Project-related activity shall be located as far possible from riparian areas. If riparian areas cannot be avoided, any temporarily impacted areas shall be restored to pre-construction conditions or better at the end of construction. Compensation for permanent impacts shall be provided at a 2:1 ratio, or at a ratio defined by the relevant regulatory agencies (e.g., CDFW and the USACE). Compensation for loss of riparian areas may be in the form of on-site or off-site creation, restoration, or enhancement of habitat. At a minimum the restoration or compensation sites shall meet the following performance standards by the fifth year following restoration:</p> <ol style="list-style-type: none"> <li>Temporarily impacted areas are returned to pre-Project conditions or greater</li> <li>Native vegetation cover shall be at least 70 percent of baseline/impact area native vegetation cover</li> <li>No more cover by invasives than the baseline/impact area</li> </ol> <p>Restoration and mitigation activities shall be described in the Mitigation and Monitoring Plan prescribed by <b>Mitigation Measure 4.4-1i (Habitat Monitoring Plan)</b>.</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging qualified biologist and ensuring they have site access.</p> <p>The qualified biologist will be responsible for implementation on site.</p>	<p>Prior to, during and following construction.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p> <p>The District will coordinate with relevant agencies (e.g., CDFW and USACE), if necessary.</p>

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-2 (cont.)</b>	<p><b>Measure 4.4-2b: Avoidance and Protection of Coastal Terrace Prairie.</b></p> <p><i>Applies to coastal terrace prairie between 7th Ave and 17th Ave, north of Schwan Lagoon.</i></p> <p>A qualified botanist shall conduct a survey to define the presence and extent of coastal terrace prairie habitat in the area north of Schwan Lagoon within 100 feet of the proposed conveyance pipeline alignment. If coastal terrace prairie is identified, the qualified botanist shall clearly delineate the northern edge of the habitat so that it can be avoided during Project construction. If coastal terrace prairie can be fully avoided, no further action is required to avoid or mitigate losses to this habitat type; however, Mitigation Measure 4.4-1k (Control Measures for Spread of Invasive Plants) would still apply to reduce the potential for weed introduction into off-site habitat.</p> <p>If identified, coastal terrace prairie habitat shall be separated and protected from the work area through the placement of construction fencing (e.g., orange fencing). Excavation, vehicular traffic, material staging, and all other Project-related activity shall be located outside of coastal terrace prairie habitat to the extent possible. If coastal terrace prairie cannot be avoided, any temporarily-impacted areas shall be restored to pre-construction conditions or better at the end of construction. Compensation for permanent impacts shall be provided at a ratio of 1:1 (i.e., no net loss) or as specified by resource agencies. Compensation may be in the form of permanent on-site or off-site creation, restoration, enhancement of habitat. At a minimum the restoration or compensation sites shall meet the following performance standards by the fifth year following restoration:</p> <ol style="list-style-type: none"> <li>Temporarily impacted areas are returned to pre-Project conditions or better.</li> <li>Native vegetation cover shall be at least 70 percent of baseline/impact area native vegetation cover.</li> <li>No more cover by invasive plants than the baseline/impact area</li> </ol> <p>Restoration and mitigation activities shall be described in the Mitigation and Monitoring Plan prescribed by <b>Mitigation Measure 4.4-1l (Mitigation and Monitoring Plan)</b>.</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging qualified botanist and ensuring they have site access.</p> <p>The qualified biologist will be responsible for implementation on site.</p>	Prior to, during and following construction.	The District will be responsible for monitoring and enforcement, as well as documenting compliance.

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Biological Resources (cont.)</b>				
<b>Impact 4.4-5:</b> Project construction could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	<p><b>Measure 4.4-5: Comply with Local Tree Ordinances.</b></p> <p>The District shall comply with all applicable local tree protection ordinances, including by obtaining any necessary tree trimming or removal permits, replanting trees in accordance with the required tree replacement ratios, and monitoring and maintaining the replacement plantings in according with applicable requirements. For tree removal requiring a tree removal permit, the following re-planting policies shall be followed:</p> <p>The City of Capitola requires tree replacement at a ratio of at least 2:1 on the subject property, or if all other locations on site are found infeasible, payment of in-lieu fees to compensate for the planting and maintenance of trees by the City. Planting of replacement follows the procedures outlined in City of Capitola Municipal Code 12.12.190 (Tree replacement). Replacement trees and/or in-lieu fees are not required if post-removal tree canopy coverage on the site or parcel will be 30 percent or more.</p> <p>Tree removal within the City of Santa Cruz requires tree mitigation in the form of replanting or payment of an in-lieu fee per tree. Replanting requires three 15-gallon or one 24-inch size specimen or payment of the current value, which is determined by the City.</p> <p>For trees removed within the jurisdiction of County of Santa Cruz, the County requires planting a tree of suitable species in the immediate vicinity of the removed tree or at a location deemed more suitable as determined by the Department of Public Works. Trees under 12 inches in diameter, measured one foot from the base, shall be replaced with trees of one -gallon size. Those over 12 inches in diameter shall be replaced with five-gallon trees.</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging qualified botanist and ensuring they have site access.</p> <p>The qualified biologist will be responsible for implementation on site.</p>	<p>Prior to construction to obtain trimming or removal permits.</p> <p>Following construction for any replacement and maintenance.</p>	The District will be responsible for monitoring and enforcement, as well as documenting compliance.
<b>Cultural Resources</b>				
<b>Impact 4.5-1:</b> The Project could cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.	<p><b>Measure 4.13-3: Vibration Monitoring for Pipeline Installation in the Vicinity of Historic Buildings (applies to buildings listed in Table 4.13-9).</b></p> <p>(See Impact 4.13-4 in Section 4.13, <i>Noise and Vibration</i>, for description.)</p>			



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Cultural Resources (cont.)</b>				
<p><b>Impact 4.5-2:</b> The Project could cause a substantial adverse change in the significance of an archaeological resource, including those determined to be a historical resource defined in Section 15064.5 or a unique archaeological resource defined in PRC 21083.2.</p>	<p><b>Measure 4.5-2a: Archaeological Research Design and Treatment Plan.</b></p> <p>This mitigation measure only applies to pipeline alignments in the vicinity of known archaeological sites (CA-SCR-12/H; CA-SCR-80; CA-SCR-93/H; CA-SCR-168/H; CA-SCR-269/H; CA-SCR-292/H; CA-SCR-293; and P-44-000302). Prior to the 30% design plans for the Project, the District shall:</p> <ol style="list-style-type: none"> <li>1. Relocate Project components to a location that would not potentially affect historical resources.</li> <li>2. Or if relocation is infeasible and historical resources would potentially be affected, design and implement an Archaeological Research Design and Treatment Plan (ARDTP) to determine whether site constituents of the known historical resources extend into the Project area.</li> </ol> <p>The investigation would be completed under the methods and research design outlined in an ARDTP. A qualified archaeologist (defined as one meeting the Secretary of the Interior's Professional Qualification Standards for archaeology) shall prepare the ARDTP in consultation with the affiliated Native American tribe(s) of the Project area. The ARDTP shall address, at a minimum, the following: the establishment of Environmentally Sensitive Areas; treatment and recovery of important scientific data contained within the portions of the historical resources located within and adjacent to the Project area; construction worker cultural resources sensitivity training; archaeological and Native American monitoring; inadvertent discovery protocols; and provisions for curation of recovered materials.</p> <p>The ARDTP shall address the methods for subsurface investigation at each of the nine historical resources that could be affected by components of the selected Project (CA-SCR-12/H; CA-SCR-80; CA-SCR-93/H; CA-SCR-168/H; CA-SCR-269/H; CA-SCR-292/H; CA-SCR-293; and P-44-000302) to determine whether the site constituents within the Project area contribute to each of the sites' overall eligibility. The subsurface investigation shall address whether the portions of the sites within the Project area contain important scientific data (Criterion 4) or other archaeological materials of traditional/cultural value to Native American tribes (Criteria 1, 2, and 3). The ARDTP shall include the specific methods that will be employed at each site location (i.e., the length and depth of excavation, the type of equipment utilized, the percent of area investigated at each site location). The investigation may include trenching or coring in the Project area adjacent to the known site components. The ARDTP shall identify how the proposed plan would preserve any significant historical information obtained and identify the scientific/historic research questions applicable</p>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging a qualified archaeologist and ensuring they have site access.</p>	<p>Prior to construction by incorporating into 30% design plans.</p> <p>Prior to construction by incorporating into 30% to develop ARDTP, if necessary.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance, in coordination with a qualified archaeologist and the affiliated Native American tribe(s).</p>

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Cultural Resources (cont.)</b>				
<b>Impact 4.5-2 (cont.)</b>	to the resources, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The results of the investigation shall be documented in a technical report that provides a full artifact catalog, analysis of items collected, results of any special studies conducted, and interpretations of the resource within a regional and local context. All technical documents shall be placed on file at the Northwest Information Center of the California Historical Resources Information System. The results report shall include recommendations for archaeological and Native American monitoring in Environmentally Sensitive Areas of the proposed Project to the extent deemed appropriate by the qualified archaeologist who carried out the work described here.			
	<p><b>Measure 4.5-2b: Cultural Resources Study of the Chanticleer Site.</b></p> <p>If the Chanticleer Site is chosen as the location for the AWPf and pump station, the District shall conduct an archaeological resources investigation for the Chanticleer Site Project area that includes, at a minimum:</p> <ul style="list-style-type: none"> <li>• An updated records search at the NWIC;</li> <li>• An intensive archaeological resources survey of the Chanticleer Site Project area;</li> <li>• A memorandum disseminating the results of this research; and,</li> <li>• If a potential archaeological resource is identified, develop and implement an Archaeological Research Design and Treatment Plan per Mitigation Measure 4.5-2a.</li> </ul>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p> <p>The District will be responsible for engaging a qualified archaeologist and ensuring they have site access.</p>	<p>Prior to construction for an archaeological resources investigation.</p> <p>Prior to construction by incorporating into 30% to develop ARDTP, if necessary.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance, in coordination, in coordination with the affiliated Native American tribe(s), if applicable.</p>
	<p><b>Measure 4.5-2c: Inadvertent Discovery of Cultural Resources.</b></p> <p>If prehistoric or historic-era archaeological resources are encountered by construction personnel during Project implementation, all construction activities within 100 feet shall halt until a qualified archaeologist, defined as one meeting the Secretary of the Interior's Professional Qualification Standards for archaeology, can assess the significance of the find. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, hand stones, or milling slabs); and battered stone tools, such as hammer stones and pitted stones. Historic-era materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.</p>	<p>The District or its contracted designee will implement the provisions of the mitigation plan.</p> <p>A qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR 61) and a Native American monitor retained by the District will be responsible for conducting the survey and data recovery described in this measure, as required.</p>	<p>During construction.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p> <p>If required, the District will prepare a written report documenting the outcome of the mitigation plan and/or the treatment plan.</p>

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Cultural Resources (cont.)</b>				
<b>Impact 4.5-2 (cont.)</b>	If a find is evaluated and determined to be significant, a mitigation plan shall be developed that recommends preservation in place as a preference or, if preservation in place is not feasible, data recovery through excavation. The mitigation plan shall be developed in consultation with the affiliated Native American tribe(s), as appropriate. If preservation in place is feasible, this may be accomplished through one of the following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding the resource site into a permanent conservation easement. If preservation in place is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan to recover scientifically consequential information from the resource prior to any excavation at the site. Treatment for most resources would consist of (but would not necessarily be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the Project. The treatment plan shall include provisions for analysis of data in a regional context; reporting of results within a timely manner; curation of artifacts and data at an approved facility; and dissemination of reports to local and state repositories, libraries, and interested professionals.	If required, the qualified archeologist will prepare a treatment plan.		
<b>Impact 4.5-3:</b> The Project could disturb human remains, including those interred outside of dedicated cemeteries.	<p><b>Mitigation Measure 4.5-3: Inadvertent Discovery of Human Remains.</b></p> <p>In the event human remains are uncovered during construction activities for the Project, the District shall immediately halt work, contact the Santa Cruz County Coroner to evaluate the remains, and follow the procedures and protocols pursuant to Section 15064.5(e)(1) of the CEQA Guidelines. State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 48 hours to notify the Native American Heritage Commission (NAHC). The NAHC will then identify the person thought to be the Most Likely Descendent of the deceased Native American. The Most Likely Descendent will make recommendations for means of treating, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.</p>	<p>The District will incorporate measures into the construction contract specifications.</p> <p>A qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR 61) and a Native American monitor (if the remains are determined to be of Native American descent) identified by the NAHC and retained by the District will be responsible for ensuring that all protection criteria have been met.</p>	During construction.	<p>The District will be responsible for enforcement and documenting compliance.</p> <p>The construction manager and qualified professional archeologist and/or Native American monitor will certify that all protection criteria have been met.</p>



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Energy Conservation</b>				
<b>Impact 4.6-1:</b> The Project could use large amounts of fuel or energy in an unnecessary, wasteful, or inefficient manner.	<b>Measure 4.6-1: Construction Equipment Efficiency Plan.</b>  The District shall contract a qualified professional (i.e., construction planner/energy efficiency expert) to prepare a Construction Equipment Efficiency Plan that identifies the specific measures that the District (and its construction contractors) will implement as part of Project construction and decommissioning to increase the efficient use of construction equipment to the maximum extent feasible. Such measures shall include, but not necessarily be limited to: procedures to ensure that all construction equipment is properly tuned and maintained at all times; a commitment to utilize existing electricity sources where feasible rather than portable diesel-powered generators; and identification of procedures (including the routing of haul trips identified in implementation of Mitigation Measure 4.15-1) that will be followed to ensure that all materials and debris hauling is conducted in a fuel-efficient manner. The plan shall be implemented throughout the construction and decommissioning periods.	The District will be responsible for implementation.	The plan will be prepared prior to commencement of construction.  The plan will be implemented during construction and decommissioning.	The District will be responsible for monitoring and enforcement, as well as for documenting compliance.
	<b>Mitigation Measure 4.3-1b: Idling Restrictions.</b>  (See Impact 4.3-1 in Section 4.3, <i>Air Quality</i> , for description.)			
<b>Hazards and Hazardous Materials</b>				
<b>Impact 4.9-3:</b> The Project would be located on or adjacent to a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment.	<b>Mitigation Measure 4.9-3a: Health and Safety Plan.</b>  The District or its construction contractor(s) shall prepare and implement site-specific Health and Safety Plans (HASP) in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. This HASP shall be submitted to the District for review and approval prior to commencement of demolition and construction activities. The HASP shall include, but is not limited to, the following elements:  <ul style="list-style-type: none"> <li>• Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site HASP;</li> <li>• A summary of all potential risks to demolition and construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;</li> <li>• Specified personal protective equipment and decontamination procedures, if needed;</li> <li>• Emergency procedures, including route to the nearest hospital; and</li> </ul>	The District will prepare or contract a qualified environmental firm to prepare the HASP.	The plan will be prepared prior to construction.  The plan will be implemented during construction.	The District will be responsible for monitoring and enforcement as well as for documenting compliance.

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Hazards and Hazardous Materials (cont.)</b>				
<b>Impact 4.9-3 (cont.)</b>	<ul style="list-style-type: none"> <li>Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release, and notifying Santa Cruz County EHS.</li> </ul>			
	<p><b>Mitigation Measure 4.9-3b: Soil Management Plan.</b></p> <p>In support of the HASP described above in Mitigation Measure HAZ-1, the contractor shall develop and implement a Soil Management Plan (SMP) that describes the procedures for managing excavated soil. The SMP shall include procedures for monitoring soil for possible contamination, identifying the specific stockpiling locations and measures to contain the stockpiled soil to prevent run on and run off, and materials disposal specifying how the construction contractor(s) will remove, handle, transport, and dispose of all excavated materials in a safe, appropriate, and lawful manner. The SMP shall specify the contractor will segregate and dispose of soil with chemical concentrations above US EPA RSLs and RWQCB ESLs screening levels. Soil with chemical concentrations below screening levels may be reused or recycled. Soil with chemical concentrations above screening levels shall be disposed of in accordance with the applicable provisions of CCR Title 22, Chapter 11, Article 3, Section 66261 (i.e., Class III (non-hazardous waste), Class II (non-hazardous and "designated" waste), or Class I (non-hazardous and hazardous waste)). The SMP must identify protocols for soil testing and disposal, identify the approved disposal sites, and include written documentation that the disposal site can accept the waste. Contract specifications shall mandate full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in excavated soil. This SMP shall be submitted to the District and the Santa Cruz County EHS for review and approval prior to commencement of construction.</p>	The District will prepare or contract a qualified environmental firm to prepare the SMP.	<p>The plan will be prepared prior to construction.</p> <p>The plan will be implemented during construction.</p>	The District and Santa Cruz County EHS will be responsible for enforcement, monitoring, and documenting compliance.
<b>Impact 4.9-4:</b> The Project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	<p><b>Mitigation Measure 4.15-1: Traffic Control Plan (Pipeline Construction).</b></p> <p>(See Impact 4.15-1 in Section 4.15, <i>Transportation</i>, for description.)</p>			

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Hydrology Resources – Surface Water</b>				
<p><b>Impact 4.11-1:</b> Project construction could result in a violation of water quality standards and/or waste discharge requirements, substantial additional sources of polluted runoff, or otherwise substantially degrade water quality.</p>	<p><b>Mitigation Measure 4.11-1: HDD Pipeline Leak Contingency Measures for Surface Water Crossings.</b></p> <p>The District shall implement the measures defined below to minimize and/or avoid water quality impacts associated with HDD pipeline installation. The measures shall be implemented at all areas where HDD installation under a waterway would occur to avoid, minimize, or mitigate for Project impacts to water quality and/or biological resources. Once final pipeline alignments are identified for the Project and the Project design is finalized, the District and/or its contractor shall further develop and implement the following minimization and avoidance measures as appropriate based on site-specific constraints and scale of work (e.g., the final siting and sizing of a containment area). The measures shall include, at a minimum:</p> <ul style="list-style-type: none"> <li>• Training of construction personnel about a) staff coordination and contact list of key Project proponents, biological monitor, and agency staff in the event of an accidental release during HDD pipeline installation b) monitoring procedures, equipment, materials and procedures in place for the prevention, containment, clean-up (such as creating a containment area and using a pump, using a vacuum truck, etc.); and, c) disposal of released drilling fluids, and agency notification protocols.</li> <li>• Methods for preventing accidental release during HDD pipeline installation including: a) maintaining pressure in the borehole to avoid exceeding the strength of the overlying soil; b) maintaining the minimum drilling pressure necessary to maintain fluid circulation; and, c) continuous monitoring of slurry circulation volumes at the exit and entry pits to determine if slurry circulation has been lost.</li> <li>• In the event an accidental release during HDD pipeline installation occurs, the on-site monitor, in coordination with the contractor, shall: a) verify that a release has occurred and identify the location of the release; b) immediately stop all drilling operations; c) deploy clean-up measures to contain drilling fluids released into surface waters; d) contact the appropriate District representative to notify of drilling fluid release occurrence (District would have responsibility to notify permit agency); e) contact the Project biological monitor to identify and relocate species potentially in the area; and, f) implement and monitor clean-up operations to contain, clean-up, and dispose of the released drilling fluids.</li> </ul>	<p>The District will ensure this measure is incorporated in the contractor's specifications.</p>	<p>During construction.</p>	<p>The District will be responsible for monitoring and enforcement, as well as documenting compliance.</p>



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Noise and Vibration</b>				
<p><b>Impact 4.13-1:</b> Construction of the Project would result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plans or noise ordinances.</p>	<p><b>Mitigation Measure 4.13-1a: Construction Noise Reduction Plan.</b></p> <p>The District shall implement for the Chanticleer Site or Headquarters-West Annex Site (for the first 2.5 months of construction); the Willowbrook Lane, Cabrillo College, and Monterey Avenue Recharge Well Sites; and pipeline alignment, as applicable, a Construction Noise Reduction Plan prior to initiating construction. A disturbance coordinator shall be designated for the Project to implement the provisions of the plan. At a minimum, the Construction Noise Reduction Plan shall implement the following measures:</p> <ul style="list-style-type: none"> <li>• Distribute to the potentially affected residences and other sensitive receptors within 200 feet of the Project construction site boundaries a “hotline” telephone number, which shall be attended during active construction working hours, for use by the public to register complaints. The distribution shall identify a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints and institute actions warranted to correct the problem. All complaints shall be logged noting date, time, complainant’s name, nature of complaint, and any corrective action taken. The distribution shall also include the construction schedule.</li> <li>• All construction equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations.</li> <li>• Maintain maximum physical separation, as far as practicable, between noise sources (construction equipment) and sensitive noise receptors. Separation may be achieved by locating stationary equipment to minimize noise impacts on the community.</li> <li>• Impact tools (e.g., jack hammers, pavement breakers) used during construction activities shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used.</li> <li>• Use construction noise barriers such as paneled noise shields, blankets, and/or enclosures adjacent to noisy stationary and off-road equipment. Noise control shields, blankets and/or enclosures shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield.</li> </ul>	<p>The District will be responsible for implementation.</p>	<p>The plan will be prepared prior to construction.</p> <p>The plan will be implemented at the specified sites during construction.</p>	<p>The District will be responsible for monitoring and enforcement, as well as for documenting compliance.</p>

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Noise and Vibration (cont.)</b>				
<b>Impact 4.13-1 (cont.)</b>	<b>Mitigation Measure 4.13-1b: Off-site Accommodations for Substantially Affected Nighttime Receptors.</b>  The District shall provide temporary hotel accommodations for all residences within 200 feet of the Willowbrook Lane and Monterey Avenue Recharge Well Sites during Project-related well drilling. The accommodations shall be provided for the duration of nighttime drilling activities. The District shall provide accommodations reasonably similar to those of the impacted residents in terms of number of beds and amenities.	The District will identify residences within 200 feet and arrange the temporary accommodations.	Arrangements will be completed prior to construction.  Accommodations will be provided to the applicable residences during construction.	The District will be responsible for ensuring compliance.
<b>Impact 4.13-2:</b> Project construction would result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.	Implement Mitigation Measure 4.13-1a.  (See Impact 4.13-1 in Section 4.13, <i>Noise and Vibration</i> , for description.)			
<b>Impact 4.13-4:</b> Project construction could result in exposure of persons to, or generation of, excessive groundborne vibration.	<b>Mitigation Measure 4.13-4: Vibration Monitoring for Pipeline Installation in the Vicinity of Historic Buildings.</b>  The District shall construct the pipeline as close as possible to the centerlines of the road right-of-way to reduce indirect impacts from construction vibration to below the 0.25 in/sec PPV threshold. If the District determines that pipelines cannot be located near the centerline of the street due to traffic concerns or existing utilities, the historical resources identified in Table 4.13-9, shall be monitored for vibration during pipeline construction, especially during the use of vibratory rollers. If construction vibration levels exceed 0.20 in/sec PPV (which is below the historic building damage threshold of 0.4 in/sec PPV), construction shall be halted and other feasible construction methods shall be employed to reduce the vibration levels below the damage threshold. Alternative construction methods may include using concrete saws instead of jackhammers or hoe-rams to open excavation trenches, the use of non-vibratory rollers, and hand excavation, or other equally effective means.	The District will be responsible for implementing the measure as defined.	Construction plans documenting the location of the pipeline near the centerline of the street will be prepared prior to construction.  Monitoring and continued compliance, as defined, will occur during construction.	The District will be responsible for monitoring and enforcement, as well as documenting compliance.
<b>Transportation</b>				
<b>Impact 4.15-1:</b> Closure of travel lanes during pipeline construction could temporarily reduce roadway capacity and increase traffic delays on area roadways, causing temporary and intermittent conflicts with all modes of travel.	<b>Mitigation Measure 4.15-1: Traffic Control Plan (Pipeline Construction)</b>  Prior to commencement of Project construction, the District and/or contractor(s) shall arrange for Traffic Control Plans (TCPs) to be prepared by a licensed traffic engineer. The TCPs shall comply with requirements in agreements executed between the District and the public works departments of the cities of Santa Cruz and Capitola, and Santa Cruz County (which have jurisdiction over the public roads in the area), and will include, but not be limited to, the following elements:	The District will ensure this measure is incorporated in the contractor's specifications.  The District will be responsible for engaging a licensed traffic engineer.	The plan will be prepared prior to construction.  The plan will be implemented at the specified sites during construction.	The District will be responsible for monitoring and enforcement, as well as documenting compliance.

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Transportation (cont.)</b>				
<b>Impact 4.15-1 (cont.)</b>	<ul style="list-style-type: none"> <li>• Circulation and detour routes shall be developed to minimize impacts on local street circulation during lane and road closures. For example, lane closures shall generally avoid the AM and PM peak commute hours. Flaggers and/or signage shall be used to guide vehicles through and/or around the construction zone. Roadside construction safety protocols shall be implemented.</li> <li>• Truck routes designated by affected jurisdictions shall be identified. Haul routes that both minimize truck traffic on local roadways and residential streets, and maximize fuel efficiency per Mitigation Measure 4.6-1 (Construction Equipment Efficiency Plan), shall be utilized.</li> <li>• Sufficient staging areas shall be developed for trucks accessing construction zones to minimize disruption of access to adjacent land uses, particularly at entries to on-site pipeline construction within residential neighborhoods.</li> <li>• Construction vehicle movement shall be controlled and monitored through the enforcement of standard construction specifications by on-site inspectors.</li> <li>• If deemed necessary by the affected jurisdictions, truck trips shall be scheduled to minimize trips during the peak morning and evening commute hours.</li> <li>• Roads shall be restored to the pre-Project number of lanes, with all trenches covered with steel plates or the equivalent outside of allowed working hours or when work is not in progress.</li> <li>• Construction shall be coordinated with Santa Cruz Metro Transit District to determine any temporary rerouting for bus lines in work zones that may be needed.</li> <li>• Bicycle and pedestrian access and circulation shall be maintained during Project construction where safe to do so. The contractor shall be required to maintain bicycle lanes/lane widths to accommodate bicycle traffic or seek a permit from the appropriate jurisdiction to address bicycle route detours and signage for any lane closures. Where construction activities encroach on a bicycle lane, advance warning signs (e.g., "Bicyclists Allowed Use of Full Lane" and/or "Share the Road") shall be posted to indicate that bicycles and vehicles are sharing the lane and to warn bicyclists and drivers of upcoming traffic hazards. If construction activities encroach on a sidewalk, safe crossings and appropriate signage shall be provided for pedestrians.</li> </ul>			



Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Transportation (cont.)</b>				
<b>Impact 4.15-1</b> (cont.)	<ul style="list-style-type: none"> <li>All equipment and materials shall be stored in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized.</li> <li>Construction shall be coordinated with facility owners or administrators of police and fire stations (including all fire protection agencies), hospitals, and schools. Facility owners or operators shall be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures. Emergency service vehicles shall be given priority for access.</li> <li>A public information plan shall be developed to provide adjacent residents and businesses with regularly updated information regarding Project construction in their area, including construction activities, durations, peak construction vehicle activities (e.g., excavation), bus stop relocations, travel lane closures, and other lane closures. This information shall also be presented on the District website and shall be updated regularly as construction conditions change.</li> <li>Portable changeable message signs shall be used to provide advance notice of lane closures.</li> </ul>			
<b>Impact 4.15-3:</b> Pipeline construction could cause temporary and intermittent impedance to access to adjacent roadways and land uses.	<b>Mitigation Measure 4.15-1: Traffic Control Plan (Pipeline Construction)</b>  (See Impact 4.5-1 in Section 4.5, Transportation and Traffic, for description.)			
<b>Impact 4.15-4:</b> Pipeline construction would not substantially impair access to alternative transportation facilities (public transit, bicycle, or pedestrian facilities), although it could temporarily decrease the performance of such facilities.	<b>Mitigation Measure 4.15-1: Traffic Control Plan (Pipeline Construction)</b>  (See Impact 4.5-1 in Section 4.5, Transportation and Traffic, for description.)			

Impact	Mitigation Measure	Implementation Responsibility	Implementation Timing	Monitoring, Enforcement, and Reporting Responsibility
<b>Tribal Cultural Resources</b>				
<b>Impact 4.16-1:</b> The Project could cause a substantial adverse change in the significance of a tribal cultural resource.	<b>Mitigation Measure 4.5-2a: Archaeological Research Design and Treatment Plan</b> (See Impact 4.5-2 in Section 4.5, <i>Cultural Resources</i> , for description.)			
	<b>Mitigation Measure 4.5-2b: Cultural Resources Study of the Chanticleer Site</b> (See Impact 4.5-2 in Section 4.5, <i>Cultural Resources</i> , for description.)			
	<b>Mitigation Measure 4.5-2c: Inadvertent Discovery of Cultural Resources</b> (See Impact 4.5-2 in Section 4.5, <i>Cultural Resources</i> , for description.)			
	<b>Mitigation Measure 4.5-3: Inadvertent Discovery of Human Remains</b> (See Impact 4.5-3 in Section 4.5, <i>Cultural Resources</i> , for description.)			

**From:** [Becky Steinbruner](#)  
**To:** [Moroney, Ryan@Coastal](#); [Bowser, Colin@Coastal](#)  
**Cc:** [Scott McGilvray](#); [Karl Maret](#); [Becky Steinbruner](#)  
**Subject:** Objections to Permit Application by Soquel Creek Water District for PureWater Soquel Project  
**Date:** Wednesday, February 19, 2020 2:46:42 PM

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Dear Ryan and Colin,

I reviewed the Coastal Act Chapter 3 statutes and would like to raise the following objections regarding the consistency of the proposed PureWater Soquel Project with those statutes and what I understand to be the intention of the Coastal Act:

**Article 7, Public Resources Code (PRC) 30260 Industrial Development**

**1) *Alternative locations are infeasible or more environmentally damaging.***

Soquel Creek Water District purchased a site adjacent to District offices in 2015 and 2016, for the West Annex location for the Project's initial sewage treatment location. This location is within the District's service boundaries, and outside of the Coastal Zone. This site and intended sewage treatment use met with substantial public resistance, prompting the District to remove the sewage treatment use and re-open the Scoping of the Project to include alternate advanced wastewater treatment facility sites. The District selected the location at 2505 Chanticleer Avenue, the "Chanticleer site", in Live Oak as the preferred alternate site for the Advanced Wastewater Treatment Facility, and proceeded with the Draft EIR analysis.

However, there was no outreach to the Live Oak community regarding this preferred location, or the Project in general. No schools were notified in writing 30 days in advance of the EIR certification and Project approval that the site, which would contain hazardous chemicals associated with the treatment process, was to be considered. Soquel Creek Water District Director Rachel Lather voted against the Project at the December 18, 2018 meeting (it was not noticed as a public hearing) because she did not feel it was ethical to force the Project's treatment plant on the Live Oak neighborhood, when that neighborhood is not even within the Soquel Creek Water District service boundaries. At the next Board meeting, held January 15, 2019, staff presented extensive explanation of the Project and the Chanticleer site to a room full of angry Live Oak residents who had only learned about the Project going into their neighborhood by reading the local newspaper. Live Oak is considered an economically-disadvantaged community.

Please see minutes 1:37-2:07 on the January 15, 2019 Board meeting video:

<https://livestream.com/sqcwd/events/7288657/videos/185886556> Many of the Live Oak residents had left the meeting by the time the Board presentation occurred. General Manager, Ron Duncan, admitted at the beginning of the PureWater Soquel presentation that "many of you are probably seeing this for the first time".

Let it be clear that the Board chose the 2505 Chanticleer Avenue site to minimize public resistance to the Project, and on February 18, 2020, authorized expenditure of \$3.2 million to purchase the property in approval of Item 7.3 recommendations (page 105):

<https://www.soquelcreekwater.org/sites/default/files/documents/board-meeting/packets/02-18-20-Board%20Packet-unsecured.pdf>

**Article 4, PRC 30230, 30231, 30232, 30233(a), 30236, Marine Environment**

***PRC 30230 states that marine resources shall be maintained, enhanced, and were feasible, restored and that the development will support biological productivity of the coastal waters while maintaining healthy populations long term.*** The PureWater Soquel Project would not meet this requirement because, by de-watering the existing sewage effluent by 3.8 million gallons/day the actual concentration of the effluent contaminants will increase, causing possible unknown harm to the marine environment. There would also be a substantial increase in treatment process chemicals and disinfection by-products, such as NDMA, that could have unknown significant and negative impacts on the long-term health of the marine environment.

Further, the Project has no Final Anti-Degradation Analysis Evaluation that provides the public any information on the potentially harmful impacts to the marine environment. The EIR relied only upon a Draft version of this critical study, which cannot be used as a definitive analysis. Therefore, this application must be denied until better analysis is completed and independently reviewed.

***PRC 30231 also discusses adverse impacts to water quality and marine environments by minimizing wastewater discharges and entrainment.***

Not only has the PureWater Soquel Project has not been thoroughly evaluated for long-term adverse impacts to the marine environment due to increased concentrations of contaminants existing in the waste water treatment effluent, but also the fact that the City of Santa Cruz Waste Water treatment facility effluent outfall pipe is ruptured and releasing treated wastewater near recreational coastal areas has not been discussed.

I have forwarded communication regarding this critical issue to you already, and hope that the Commission will address the ruptured outfall pipe problem, and make any action regarding the PureWater Soquel Project contingent upon the effluent outfall pipe being replaced or repaired.

***PRC 30231 also discusses the importance of preventing depletion of groundwater supplies.***

While Soquel Creek Water District claims the need for the PureWater Soquel Project is because of seawater intrusion in the MidCounty Groundwater Agency basin, the problem is more prominent in the southern areas of the District's boundaries, which are purely political and not reflective of the groundwater basin boundaries. The Seascape and La Selva Beach areas, although being within the District's Service Area #4, is actually not within the Purisima Aquifer, which defines the Soquel Valley Basin.

By and large, Montgomery & Associate hydrologic analysis shows the groundwater levels in the Purisima areas have risen and stabilized since 2015 when customers began outstanding conservation efforts that continue to this day. Soquel Creek Water District now admits that future demand will continue to decrease, and production will continue to decline. If the District were to obtain expanded water rights to the San Lorenzo River and even Soquel Creek, it would eliminate the need for winter pumping in most years completely, and thereby allow groundwater levels to rise in all areas of the District's service boundaries. The State Water Board streamlined the temporary water right amendment process and reduced associated fees in September, 2019.

Recent Pajaro Valley Water Management Agency (PVWMA) information has shown the groundwater levels have risen in the areas adjacent to the District's Service Area #4, and there are plans by PVWMA to soon extend the recycled water supply lines west to the District's service boundaries.

The need for the PureWater Soquel Project cannot be verified, and the Project Alternative Analysis of the EIR was inadequate and flawed. Therefore, the Commission should deny any permit until such analysis demonstrating the need and impacts of groundwater supplies is conducted and independently reviewed.

***PRC 30232 relates to hazardous materials and their transport, as well as spillage containment.***

The PureWater Soquel Project EIR provides no plans for handling or storage of the hazardous chemicals that will be required to be on site at the Chanticleer Advanced Water Treatment Facility or the Monterey Injection Well, both of which are in the Coastal Zone. The Project EIR did not even evaluate the Tertiary Waste Water Treatment Facility proposed for the City of Santa Cruz location because those agreements were made after the EIR was certified and the Project approved. The Department of Fish and Wildlife did not submit comment on the Project DEIR and there is no evidence in the Record that they were brought in for consultation, as is required by California Environmental Quality Act (CEQA) law. This is critical, to ensure that all mitigations are enforceable. Likewise, the Central Coast Regional Water Quality Control Board did not submit comment, even though the Project DEIR states that chemicals would be used to clean the reverse osmosis membranes in the advanced treatment process as well as the injection wells.

Therefore, the Commission needs to require thorough environmental analysis and clear procedural



components relative to the handling, transport and disposal of the hazardous chemicals intended for use in the Project. There must be clear and public evidence that the Department of Fish and Wildlife and the Regional Water Quality Control Board are closely and publicly involved in this Project before any permitting is allowed in order to protect the Public Trust Doctrine.

***PRC 30233(a) addresses the permitting of disturbances within estuary and coastal riparian areas.***

*"shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects."*

The PureWater Soquel Project would include 18 such stream crossings over jurisdictional waters. The District Board approved a Statement of Overriding Consideration claiming that the significant and adverse construction impacts to areas adjacent to riparian and coastal areas is justified, but made no concrete finding of benefit, other than to support the reference to over-arching claim of groundwater supply problems. This does not meet the provisions dictated in PRC 30233.

Therefore, I request that before granting any permit for the PureWater Soquel Project, the Commission review the Project's Statement of Overriding Consideration and Mitigation Monitoring and Reporting Program and require clear and verified information to support the Public Trust Doctrine and coastal resources.

***PRC 30236 discusses further disturbances to rivers and streams.***

Such activity is considered when *"necessary water supply projects"* are involved, but *"shall incorporate the best mitigation measures feasible."* These mitigation measures are absent from the Project EIR and the public has no assurance that the environmental resources within the Coastal Zone, or anywhere within the proposed Project envelope, will be protected and / or restored. Therefore, I request that the Commission require full and clear mitigation measures that have been derived with careful and methodic analysis in cooperation with the Department of Fish and Wildlife and the Regional Water Quality Control Board to be incorporated and made publicly available before approving any Project permits.

**Article 6, PRC 30250, 30252, 30253, 30254 and 30254.5 Development**

PRC 30250 (b) states that *"where feasible, new hazardous industrial development shall be located away from existing developed areas."* The proposed PureWater Soquel Project does not meet this requirement.

***PRC 30251 regards the visual impacts of new development along high-visibility areas within the Coastal Zone.*** The proposed PureWater Soquel Project Advanced Water Treatment Facility at 2505 Chanticleer Avenue would in fact border the Soquel Avenue frontage road bordering Highway One and be extremely visible from the highway corridor. The alternative West Annex site adjacent to District offices, is not within the Coastal Zone and is within the District's service area boundaries. Again, the District has chosen the Chanticleer site to avoid public resistance from customers, but has forced the unpopular Project upon the economically disadvantaged Live Oak community without the benefit of them having been informed and involved in the EIR process.

What is missing from the Project application is the visual impacts of the inline pumping stations along the conveyance pipelines between the Tertiary Waste Water Treatment Facility on Bay Avenue in the City of Santa Cruz and the proposed Advanced Water Treatment Facility in Live Oak, and the further pump stations and injection well pumps themselves, one of which would be within the Coastal Zone.

***PRC 30252 regards the transportation impacts of the proposed Project.***

Provision #3 states that *"The location and amount of new development should maintain and enhance public access to the coast by....(3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation"*

The proposed PureWater Soquel Project treatment facility on the corner of Chanticleer Avenue and the Soquel Avenue frontage road would be in an area that has NO public transportation and would increase automobile traffic to the coastal zone area due to many planned tours that the District claims in the EIR would be offered for educational purposes. Therefore, before any permit is approved for this Project, the Commission needs to address the lack of public transportation to the proposed Chanticleer Avenue site, or to require the District to consider the merits of the West Annex site for the treatment plant, as it is on the Soquel Drive transit corridor and would accommodate visitors using public transportation.

***PRC 30253 describes air quality and energy requirements of the new development.***

The proposed PureWater Soquel Project must: "(3) *Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development*" After the Board certified the Project EIR, they approved a modification to allow portable generator use at the injection well construction sites. The Twin Lakes Church injection well, approved and put out to bid before the Project EIR was certified, incorporated a very large diesel generator at the site, as well as multiple diesel trucks bringing water for the injection well testing. Air quality at the Twin Lakes Baptist Church School was adversely affected. The Church made no complaint, but citizens did. The Church relies upon the monthly \$800/month site rental agreement with the District, and has received a waiver of the usual Water Demand Offset requirements for new construction of staff housing and coffee house on site, as well as a promise of free irrigation water for athletic fields for 50 years. Again, although the air quality suffered during the Twin Lakes Church injection well project development, the Church did not complain.

The proposed Monterey Injection well is within the Coastal Zone and is immediately adjacent to residential units and a church. I request that the Commission staff address this matter in the staff report and investigation, as it applies to the air quality provisions of PRC 30253 (3) and permitting.

***PRC 30253 also addresses the need to minimize energy consumption***

This statute further reads: (4) *Minimize energy consumption and vehicle miles traveled.*" The PureWater Soquel Project would greatly increase the energy demand for the area not only due to the high-energy consumption of the reverse osmosis treatment process, but also due to multiple in-line pump stations along the miles of conveyance system between Bay Avenue in Santa Cruz to the proposed Chanticleer treatment site, (all in the Coastal Zone) and further to the three proposed injections wells, (one of which is in the Coastal Zone). The Project EIR did not analyze the energy demand but only stated a projected total demand, split equally between treatment and conveyance.

I respectfully request that the Commission staff require a detailed analysis of the energy demand the PureWater Soquel Project would require for the year-around 24/7 operation projections stated in the EIR.

Also, staff should request an independent traffic analysis for the treatment facilities that would reflect the extensive public tours the District has included in the EIR but for which there was no verification. Again, if the Chanticleer site were to be used for the treatment facility, there would be no public transportation in the area to accommodate the visitation and tours as well as maintenance.

***PRC 30253 further addresses the need to protect existing neighborhoods and coastal access visitation.***

*Statute section (5) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses."*

The Live Oak community is considered an economically-disadvantaged community, but has one of the highest vacation rental areas due to the popularity of the Santa Cruz Harbor and the coastal access areas nearby. The integrity of the Live Oak neighborhood, as was strongly voiced by some of those residents to the District Board on January 15, 2019, must be considered by the staff in reports and analysis for the Commission's consideration of permitting the Project. First District County Supervisor John Leopold testified before the District Board on December 18, 2018, and implored them NOT to build the Advanced Water Treatment Facility on the 2505 Chanticleer Avenue property in Live Oak.

See Minute 1:24:40 [https://www.youtube.com/watch?v=Ps\\_VSd9IoRI](https://www.youtube.com/watch?v=Ps_VSd9IoRI)

***PRC 30254 regards public works facilities associated with development.***

The County of Santa Cruz Sanitation District engineer, Mr. Kent Edler, commented on the Project's DEIR, alerting Soquel Creek Water District to the fact that the Rodeo Basin sewage collection system is already at capacity, and there are restrictions on new sewage effluent volumes. The proposed Chanticleer treatment plant would, according to the Project EIR, induce effluent increases to the sanitary sewer system with cleaning and flushing procedures. While the exact volumes and frequencies of this occurrence were not analyzed by the EIR, and Mr. Edler's comments were not addressed in a meaningful and analytical way, the problem exists.

I request that the Commission staff include this matter in the staff report and investigation of the Soquel Creek Water District permit application for the proposed PureWater Soquel Project.

Thank you for considering my requests for you and your staff in this critical matter.

Sincerely,  
Becky Steinbruner

**From:** [Becky Steinbruner](#)  
**To:** [Moroney, Ryan@Coastal](#)  
**Cc:** [Scott McGilvray](#); [Karl Maret](#)  
**Subject:** Re: FW: Pure Water Soquel  
**Date:** Tuesday, February 11, 2020 7:49:13 AM

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Dear Mr. Moroney,

I am confirming our meeting today at 2pm at your office. Two experts will be joining us, Mr. Scott McGilvray and Dr. Karl Maret. Below are critical points of the legal action against the PureWater Soquel Project that I would like to discuss with the added expertise of these two gentlemen.

1. Inadequate Project Alternatives Analysis that did not allow consideration of valid surface water transfers and possible water rights changes the District can pursue.
2. Inadequate response to critical agency comments on the Draft EIR by Ms. Rosemary Menard, City Water Director, and Mr. John Ricker, County Water Resources Director.
3. The current lack of an antidegradation water quality monitoring plan for the project as evidenced by the entirely missing section in the draft Antidegradation Evaluation Report. Monitoring for regulated drinking water contaminants and the few CEC indicators the state currently requires will happen, but screening and monitoring is also needed for unregulated contaminants that may be specific concerns to this project including chemical CECs, pathogens, antibiotic resistance genes and disinfection process by-products.
4. Inadequate analysis of impacts and monitoring of added and/or more concentrated contaminants including CECs in the effluent flowing through the damaged outfall pipe into the Monterey Bay National Marine Sanctuary.
5. Inadequate analysis of impacts of the planned construction at the wastewater plant and at the location(s) where the treatment plant bypass (directly to the outfall ) may need alteration or the impacts of all conveyance pipelines and pump stations between the treatment plant and the Chanticleer treatment plant, which include 18 stream crossings over jurisdictional waters. The EIR is devoid of any comment by Department of Fish and Wildlife nor State Regional Water Quality Control Board, and therefore mitigations may not be enforceable.

Thank you, Mr. Moroney. I look forward to our meeting today and appreciate this opportunity to discuss these issues with you.

Sincerely,  
Becky Steinbruner

On Sat, Feb 8, 2020 at 9:34 PM Becky Steinbruner  
<[vote4beckysteinbruner@gmail.com](mailto:vote4beckysteinbruner@gmail.com)> wrote:

**Exhibit 11**  
**3-20-0014**  
**6 of 126**



Dear Mr. Mulroney,  
Thank you. I will send you a few points on Monday that I would like to cover, to help expedite our meeting.  
Sincerely,  
Becky Steinbruner

On Fri, Feb 7, 2020 at 11:35 AM Moroney, Ryan@Coastal  
<[Ryan.Moroney@coastal.ca.gov](mailto:Ryan.Moroney@coastal.ca.gov)> wrote:

Affirmative. 3<sup>rd</sup> floor of the MAH building; above Abbott Square.

**From:** Becky Steinbruner [mailto:[vote4beckysteinbruner@gmail.com](mailto:vote4beckysteinbruner@gmail.com)]  
**Sent:** Thursday, February 06, 2020 11:01 PM  
**To:** Moroney, Ryan@Coastal  
**Subject:** Re: FW: Pure Water Soquel

Dear Mr. Mulroney,

Thank you. I appreciate this opportunity to talk with you, and will respect your time. Is your office at 725 Front Street, Suite 300, in Santa Cruz?

Sincerely,

Becky Steinbruner

On Thu, Feb 6, 2020 at 1:40 PM Moroney, Ryan@Coastal  
<[Ryan.Moroney@coastal.ca.gov](mailto:Ryan.Moroney@coastal.ca.gov)> wrote:

Sounds good – I will reserve a conference room here. Feel free to bring your experts, but I would like to limit the time to 45 minutes, okay?

**From:** Becky Steinbruner [mailto:[vote4beckysteinbruner@gmail.com](mailto:vote4beckysteinbruner@gmail.com)]  
**Sent:** Thursday, February 06, 2020 1:35 PM  
**To:** Moroney, Ryan@Coastal  
**Subject:** Re: FW: Pure Water Soquel

Hi, Mr. Mulroney,

Thank you for offering to meet with me. I would like to accept your Tuesday, February 11 appointment at 2pm. I wonder if I could bring with me two subject experts that have been actively involved in the PureWater Soquel Project proceedings?

Sincerely,

Becky Steinbruner

On Wed, Feb 5, 2020 at 4:06 PM Moroney, Ryan@Coastal  
<[Ryan.Moroney@coastal.ca.gov](mailto:Ryan.Moroney@coastal.ca.gov)> wrote:

Please advise ASAP. My calendar next week is booking up rather quickly. In the meantime, I'm going to suggest Tuesday 2/11 at 10am or 2pm.

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**From:** Moroney, Ryan@Coastal  
**Sent:** Tuesday, February 04, 2020 4:01 PM  
**To:** Becky Steinbruner  
**Subject:** RE: Pure Water Soquel

Tuesday and Wednesday of next week look pretty good as of now; I'll be focusing on writing up the staff report. Let me know a time that works best for you, Ryan

**From:** Becky Steinbruner [mailto:[vote4beckysteinbruner@gmail.com](mailto:vote4beckysteinbruner@gmail.com)]  
**Sent:** Tuesday, February 04, 2020 1:51 PM  
**To:** Moroney, Ryan@Coastal  
**Subject:** Re: Pure Water Soquel

Dear Mr. Moroney,

Thank you for your message and providing me the opportunity to present my concerns regarding the PureWater Soquel Project to your staff.

I would appreciate the opportunity to meet with you at your convenience next week. Please suggest a couple of dates/times that would work for your schedule.

Thank you very much.

Sincerely,

Becky Steinbruner

On Tue, Feb 4, 2020 at 9:24 AM Moroney, Ryan@Coastal  
<[Ryan.Moroney@coastal.ca.gov](mailto:Ryan.Moroney@coastal.ca.gov)> wrote:

Hi Becky: the Soquel Creek Water District has submitted an application to the Coastal Commission for the above project. They included information about your opposition to the project, which I have reviewed, but I wanted to give you an opportunity to identify your concerns directly to staff. We plan to bring the project to the Coastal Commission hearing in March in Scotts Valley. Let me know if you would like to submit your concerns in writing, or I could probably carve out an hour or so next week if you would like to meet. You will also have a chance to review the staff report (currently scheduled to publish on Feb 21) and make any written comments in response to that as well.

Feel free to email or call to discuss. Thanks,

Ryan Moroney

Central Coast District Supervisor

California Coastal Commission

725 Front Street, Suite 300

Santa Cruz, CA 95060-4508

<http://www.coastal.ca.gov/>

[ryan.moroney@coastal.ca.gov](mailto:ryan.moroney@coastal.ca.gov)

(831) 427-4863 general



**From:** [Becky Steinbruner](#)  
**To:** [Moroney, Ryan@Coastal](#)  
**Cc:** [Scott McGilvray](#); [Karl Maret](#); [Bowser, Colin@Coastal](#)  
**Subject:** Re: Pure Water Soquel  
**Date:** Tuesday, February 18, 2020 1:25:03 AM

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Dear Mr. Moroney,

Thank you for the opportunity to meet with you and Mr. Bowser recently to discuss the impending permit application by Soquel Creek Water District. I appreciate also the attached information.

I would like to submit written comment on this matter. I look forward to reviewing the staff report when it is available.

Below is a copy of the letter I sent to Ms. Karen Fligger regarding the EPA loan the District applied to receive for the PureWater Soquel Project; I received no response. I also wrote to Ms. Nichole Rodriguez at NOAA regarding the ruptured Santa Cruz City Wastewater Treatment Facility effluent outfall, but received no response. Both letters are copied below. Also, here is a link to the dye study showing the rupture in the Wastewater Treatment Facility effluent outfall: <http://www.cityofsantacruz.com/home/showdocument?id=36702>

I will forward to you separately some information I received from a local water quality expert also verifying this rupture as it was reported on page 53 in Table E-1 from the NPDES permit for the Wastewater Treatment Facility.

Thank you very much.

Sincerely,  
Becky Steinbruner  
831-685-2915  
\*\*\*\*\*

Becky Steinbruner <ki6tkb@yahoo.com>  
To: Karen Fligger  
Cc: Becky Steinbruner

Oct 26, 2019 at 9:28 PM

Dear Ms. Fligger,

I have left a voice message for you to discuss briefly my concerns upon reading in my local newspaper of the EPA award of eligibility to Soquel Creek Water District for a WIFIA low-cost loan. I attempted to send you a message on the EPA website, but my message exceeded the 2000 character limit. Therefore, I am attempting this direct e-mail to relate to you a few of the concerns that I and hundreds of others share regarding the environmentally-damaging PureWater Soquel Project.

I would greatly appreciate you acknowledging your receipt of this message, and ask that perhaps we can set an appointment to discuss the issues below as well as others by telephone (831-685-2915)

Thank you very much.

Sincerely,  
Becky Steinbruner  
\*\*\*\*\*

Dear Ms. Fligger,

I have just read in my local newspaper of the WIFIA eligibility awarded to Soquel Creek Water District, in Soquel, California for a \$49 million loan to help fund their proposed PureWater Soquel Project. As a community member that will be affected by this Project, I want you to know there is significant public resistance to this Project, and that the District has failed to pursue other low-cost supplemental water sources that are available and are being pilot-tested. These regional management approaches would be far less



environmentally-damaging than the PureWater Soquel Project, which required the District's Board of Directors to approve a Statement of Overriding Considerations and an extensive, although vaguely-written, list of required mitigations. The extensive conveyance system will require brine pipelines to cross jurisdictional streams 18 times, which poses great threat to the environmental safety of those sensitive riparian habitats containing protected species, especially during seismic events that are common in this area of California.

The District also has not secured a Final Draft of the Anti-Degradation Evaluation for the Project, which is required by the California Regional Department of Water Quality Control Board under Resolution 68-16. The analysis has not been completed to validate that the Project's three 1000'-deep pressure injection wells will not harm the groundwater quality in the aquifer and nearby private wells, or the surface waters where some of the injection well cleaning effluent would be deposited. It also has not been fully evaluated how the brine concentrate would impact the Monterey Bay National Marine Sanctuary at the effluent outfall near Santa Cruz City Wastewater treatment facility's pipeline that is ruptured and not functioning as it should. The Project's EIR mentions the possibility of harm to marine life, but again, there was no Final Anti-Degradation Evaluation completed.

The energy requirement stated in the Project's EIR was not substantiated with any analysis at all. However, it is known that the energy demand of the reverse osmosis pumps is significant, and there would likewise be pumps required along the many miles of conveyance system, and at the three injection wells. The Project would operate, according to the EIR, 365 days/year, on a 24/7 basis. The increased energy demand concerns many here, especially given the future of local PG&E electrical utility shut-offs for extended periods of time that are anticipated for the next 10 years.

A feasibility study conducted in 2015 for the PureWater Soquel Project by Kenedy/Jenks engineering consultants stated that the if the District chose to use regional water supplies in conjunctive use, there would be an advantage to District customers in times of disaster because that water would be potable for customer use, whereas the recycled PureWater Soquel water would not.

There is legal action in process against Soquel Creek Water District for multiple alleged violations of the California Environmental Quality Act (CEQA) and the Petition for Writ of Mandate has not yet been heard on the merits. The Petitioner does intend to appeal the case if necessary. (Case 19CV00181 in Santa Cruz County Superior Court). The Public Trust Doctrine is at risk by actions of the District to fast-track construction of the PureWater Soquel Project.

Please do not use taxpayer dollars to fund this environmentally-damaging project when there are other alternative water supplies available if the District would be willing to agree to a more regional water management approach. I would gladly discuss this with you further.

There are hundreds of other citizens who feel as I do. We would, however, heartily support a WIFIA loan to help upgrade the existing infrastructure with the City of Santa Cruz that would allow even greater water volumes for conjunctive use with Soquel Creek Water District when the water is available, with very minimal impact on environment.

I would appreciate your response. Thank you.

Sincerely,  
Becky Steinbruner  
831-685-2915  
\*\*\*\*\*

Becky Steinbruner <ki6tkb@yahoo.com>  
To: Nichole Rodriguez  
Cc: Becky Steinbruner

Oct 1, 2019 at 1:12 AM

Dear Ms. Rodriguez,

I am forwarding my message below to you because I am concerned about information I read on the Santa Cruz City Wastewater Treatment website. There appears to be a rupture in the Santa Cruz City Wastewater Treatment Facility effluent outfall pipe that extends into the Monterey Bay National Marine Sanctuary.

I have been researching the issue because I am aware that Santa Cruz City has entered into an agreement with Soquel Creek Water District for a tertiary treatment plant to support a recycled water project the District is planning for the Aptos area. I have read the EIR for the PureWater Soquel Project and was surprised that NOAA did not submit comment, given that the Project would concentrate the effluent brine being disposed of in the Monterey Bay National Marine Sanctuary, as well as add unknown concentrations of disinfection and cleaning agents to the wastewater stream. One diagram shown publicly by Soquel Creek Water District appeared to return this brine effluent to the Santa Cruz City wastewater treatment outfall pipe directly, and may or may not include treatment processes before disposal into the Marine Sanctuary.

Are you aware of this Project, and also the apparent problem with the Santa Cruz City Wastewater Treatment outfall pipeline rupture described below?

Thank you very much for your response.

Sincerely,  
'Becky Steinbruner

----- Forwarded Message -----

**From:** Becky Steinbruner <ki6tkb@yahoo.com>

**To:** Anne Hogan <ahogan@santacruzcity.com>

**Cc:** Rosemary Menard <rmenard@cityofsantacruz.com>; John Robertson <john.robertson@waterboards.ca.gov>; John Ricker <john.ricker@santacruzcounty.us>; Becky Steinbruner <ki6tkb@yahoo.com>

**Sent:** Sunday, September 29, 2019, 07:04:53 PM UTC

**Subject:** Re: Wondering About Disposal of Contaminants Removed in Secondary and Tertiary Wastewater Treatment?

Dear Ms. Hogan,

I have not received a response from any City staff regarding my question about the fate of contaminants in the waste water treatment facility effluent.

I have been researching the documentation available on the City website regarding CEC monitoring in the effluent outfall but found limited information available. I did read the 2018 Summary Report and noted a very narrow scope of contaminant testing reported. I also noted that the physical outfall examination that was to have been done by the City's contractor, Global Diving and Salvage, never occurred in 2018. The City conducted a dye test and aerial inspection on December 13, 2018.

<file:///home/phttp/Downloads/2018%20Annual%20Summary%20and%20Outfall%20%20Report%20.pdf>

Has there been any further physical examination of the City's outfall pipe other than the dye testing performed on December 13, 2018? I note that aerial inspection of that dye test reported a plume about mid-way in the pipe:

Figure 2 - At 1:32 a dye plume was seen emanating from the pipeline along the diffuser pipe and at the outfall location A. A plume is also visible at location B-GPS coordinates of 36.939646 / -122.057980.

Has the site of this unexpected plume at location "B" been further evaluated and / or repaired?

I am concerned about this in that if the Tertiary Treatment Facility is built at the City's wastewater treatment facility in coordination with Soquel Creek Water District's planned PureSource Water Project, the concentration of the brine contaminants will increase by fact of the removal of 1.6 million gallons of wastewater/day for the Project. The Project would return brine contaminants to the City's wastewater treatment facility and dispose of them via the effluent outfall pipe into the Monterey Bay National Marine Sanctuary.

I am aware that the City of Santa Cruz would bear responsibility for operation of the tertiary treatment facility and effluent outfall. What monitoring system would be in place for mitigation of potential increased contaminant concentration of the effluent?

I look forward to your response and thank you for any information that you can provide to help me understand these issues.

Sincerely,  
Becky Steinbruner

On Saturday, August 24, 2019, 05:05:24 PM UTC, Becky Steinbruner  
<ki6tkb@yahoo.com> wrote:

Dear Ms. Hogan,

I determined from the City of Santa Cruz Wastewater Treatment website that you are the Director of that facility, so I am writing you with hope that you can help me better understand the issue of disposal of contaminants removed from the treatment facility.

I have been reading interesting studies about the effects of opioids on aquatic organisms and wonder how the City of Santa Cruz Wastewater Treatment Facility disposes of pharmaceuticals removed from the wastewater it treats? I toured the facility a few years ago, so am aware that the solids removed are trucked away on a daily basis for off-site composting.

However, I wonder what happens to the pharmaceuticals and personal care products that are removed in the secondary treatment process?

How are those currently disposed of? How would that disposal change with the tertiary treatment process the City is planning to include as part of the agreement with Soquel Creek Water District?

I am interested in this issue, having read studies like this one: <https://cen.acs.org/environment/water/opioids-down-drain-scientists-tracking/97/i16> and worry about the environmental impact of the rising pharmaceutical levels in the wastewater sources. I would appreciate any information that you could provide about the levels of contaminants that are currently being tested for at the City Wastewater Treatment Facility, and if there are plans to expand the level of sampling and or testing.

Thank you very much for your help.

Sincerely,  
Becky Steinbruner

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On Tuesday, February 11, 2020, 11:44:38 PM UTC, Moroney, Ryan@Coastal  
<ryan.moroney@coastal.ca.gov> wrote:

Becky: thank you and your team for taking the time today to explain your concerns regarding this project. We will carefully review the information provided. Regarding your request, the entire application is far too large to email. I can burn it on a disk if you want to pick it up. Otherwise, here is the main gist w/o attachments. Regards,

Ryan Moroney  
Central Coast District Supervisor  
California Coastal Commission  
725 Front Street, Suite 300  
Santa Cruz, CA 95060-4508  
<http://www.coastal.ca.gov/>



[ryan.moroney@coastal.ca.gov](mailto:ryan.moroney@coastal.ca.gov)  
(831) 427-4863 general



**From:** Becky Steinbruner [mailto:vote4beckysteinbruner@gmail.com]  
**Sent:** Tuesday, February 11, 2020 7:49 AM  
**To:** Moroney, Ryan@Coastal  
**Cc:** Scott McGilvray; Karl Maret  
**Subject:** Re: FW: Pure Water Soquel

Dear Mr. Moroney,

I am confirming our meeting today at 2pm at your office. Two experts will be joining us, Mr. Scott McGilvray and Dr. Karl Maret. Below are critical points of the legal action against the PureWater Soquel Project that I would like to discuss with the added expertise of these two gentlemen.

1. Inadequate Project Alternatives Analysis that did not allow consideration of valid surface water transfers and possible water rights changes the District can pursue.
2. Inadequate response to critical agency comments on the Draft EIR by Ms. Rosemary Menard, City Water Director, and Mr. John Ricker, County Water Resources Director.
3. The current lack of an antidegradation water quality monitoring plan for the project as evidenced by the entirely missing section in the draft Antidegradation Evaluation Report. Monitoring for regulated drinking water contaminants and the few CEC indicators the state currently requires will happen, but screening and monitoring is also needed for unregulated contaminants that may be specific concerns to this project including chemical CECs, pathogens, antibiotic resistance genes and disinfection process by-products.
4. Inadequate analysis of impacts and monitoring of added and/or more concentrated contaminants including CECs in the effluent flowing through the damaged outfall pipe into the Monterey Bay National Marine Sanctuary.
5. Inadequate analysis of impacts of the planned construction at the wastewater plant and at the location(s) where the treatment plant bypass (directly to the outfall ) may need alteration or the impacts of all conveyance pipelines and pump stations between the treatment plant and the Chanticleer treatment plant, which include 18 stream crossings over jurisdictional waters. The EIR is devoid of any comment by Department of Fish and Wildlife nor State Regional Water Quality Control Board, and therefore mitigations may not be enforceable.

Thank you, Mr. Moroney. I look forward to our meeting today and appreciate this opportunity to discuss these issues with you.

Sincerely,  
Becky Steinbruner

On Sat, Feb 8, 2020 at 9:34 PM Becky Steinbruner <[vote4beckysteinbruner@gmail.com](mailto:vote4beckysteinbruner@gmail.com)> wrote:

Dear Mr. Mulroney,  
Thank you. I will send you a few points on Monday that I would like to cover, to help expedite our meeting.  
Sincerely,  
Becky Steinbruner

On Fri, Feb 7, 2020 at 11:35 AM Moroney, Ryan@Coastal <[Ryan.Moroney@coastal.ca.gov](mailto:Ryan.Moroney@coastal.ca.gov)> wrote:

Affirmative. 3<sup>rd</sup> floor of the MAH building; above Abbott Square.

**From:** Becky Steinbruner [mailto:[vote4beckysteinbruner@gmail.com](mailto:vote4beckysteinbruner@gmail.com)]  
**Sent:** Thursday, February 06, 2020 11:01 PM  
**To:** Moroney, Ryan@Coastal  
**Subject:** Re: FW: Pure Water Soquel

Dear Mr. Mulroney,  
Thank you. I appreciate this opportunity to talk with you, and will respect your time. Is your office at 725 Front Street, Suite 300, in Santa Cruz?

Sincerely,  
Becky Steinbruner

On Thu, Feb 6, 2020 at 1:40 PM Moroney, Ryan@Coastal <[Ryan.Moroney@coastal.ca.gov](mailto:Ryan.Moroney@coastal.ca.gov)> wrote:

Sounds good – I will reserve a conference room here. Feel free to bring your experts, but I would like to limit the time to 45 minutes, okay?

**From:** Becky Steinbruner [mailto:[vote4beckysteinbruner@gmail.com](mailto:vote4beckysteinbruner@gmail.com)]  
**Sent:** Thursday, February 06, 2020 1:35 PM  
**To:** Moroney, Ryan@Coastal  
**Subject:** Re: FW: Pure Water Soquel

Hi, Mr. Mulroney,  
Thank you for offering to meet with me. I would like to accept your Tuesday, February 11 appointment at 2pm. I wonder if I could bring with me two subject experts that have been actively involved in the PureWater Soquel Project proceedings?  
Sincerely,  
Becky Steinbruner

On Wed, Feb 5, 2020 at 4:06 PM Moroney, Ryan@Coastal <[Ryan.Moroney@coastal.ca.gov](mailto:Ryan.Moroney@coastal.ca.gov)> wrote:

Please advise ASAP. My calendar next week is booking up rather quickly. In the meantime, I'm going to suggest Tuesday 2/11 at 10am or 2pm.

**From:** Moroney, Ryan@Coastal  
**Sent:** Tuesday, February 04, 2020 4:01 PM  
**To:** Becky Steinbruner  
**Subject:** RE: Pure Water Soquel

Tuesday and Wednesday of next week look pretty good as of now; I'll be focusing on writing up the staff report. Let me know a time that works best for you, Ryan

**From:** Becky Steinbruner [mailto:[vote4beckysteinbruner@gmail.com](mailto:vote4beckysteinbruner@gmail.com)]  
**Sent:** Tuesday, February 04, 2020 1:51 PM  
**To:** Moroney, Ryan@Coastal  
**Subject:** Re: Pure Water Soquel

Dear Mr. Moroney,  
Thank you for your message and providing me the opportunity to present my concerns regarding the PureWater Soquel Project to your staff.

I would appreciate the opportunity to meet with you at your convenience next week. Please suggest a couple of dates/times that would work for your schedule.

Thank you very much.  
Sincerely,  
Becky Steinbruner

On Tue, Feb 4, 2020 at 9:24 AM Moroney, Ryan@Coastal  
<[Ryan.Moroney@coastal.ca.gov](mailto:Ryan.Moroney@coastal.ca.gov)> wrote:

Hi Becky: the Soquel Creek Water District has submitted an application to the Coastal Commission for the above project. They included information about your opposition to the project, which I have reviewed, but I wanted to give you an opportunity to identify your concerns directly to staff. We plan to bring the project to the Coastal Commission hearing in March in Scotts Valley. Let me know if you would like to submit your concerns in writing, or I could probably carve out an hour or so next week if you would like to meet. You will also have a chance to review the staff report (currently scheduled to publish on Feb 21) and make any written comments in response to that as well.

Feel free to email or call to discuss. Thanks,

Ryan Moroney  
Central Coast District Supervisor  
California Coastal Commission  
725 Front Street, Suite 300  
Santa Cruz, CA 95060-4508  
<http://www.coastal.ca.gov/>  
[ryan.moroney@coastal.ca.gov](mailto:ryan.moroney@coastal.ca.gov)  
(831) 427-4863 general



**From:** [Becky Steinbruner](#)  
**To:** [Moroney, Ryan@Coastal](#); [Bowser, Colin@Coastal](#)  
**Subject:** Fw: Wondering About Disposal of Contaminants Removed in Secondary and Tertiary Wastewater Treatment?  
**Date:** Tuesday, February 18, 2020 1:33:03 AM  
**Attachments:** [Final Order 2017-0030 Santa Cruz WWTP.pdf](#)

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Dear Mr. Moroney and Mr. Bowser,  
Below is a forwarded message regarding the ruptured effluent outfall of the Santa Cruz City Wastewater Treatment Facility. Table E-1 that notes the leak at approximately 65 foot line is on page 53 of the report.

Thank you very much.  
Sincerely,  
Becky Steinbruner

----- Forwarded Message -----

**From:** d wirkman <[debrawirkman@sbcglobal.net](mailto:debrawirkman@sbcglobal.net)>  
**To:** Becky Steinbruner <[ki6tkb@yahoo.com](mailto:ki6tkb@yahoo.com)>  
**Sent:** Thursday, October 10, 2019, 05:54:24 PM UTC  
**Subject:** Re: Wondering About Disposal of Contaminants Removed in Secondary and Tertiary Wastewater Treatment?

Hi Becky,

I've attached a PDF file containing the current NPDES permit for the Santa Cruz WWTF. A couple points of interest in it related to the outfall are:

On page 19:

VI Provisions

C. Special Provisions

2. Special Studies, Technical Reports and Additional Monitoring Requirements

f. Ocean Outfall and Diffuser Monitoring

At least once per year, the Discharger shall conduct a dye dilution study to visually inspect the entire outfall structure to determine whether there are leaks, potential leaks, or malfunctions. This inspection shall be collected along the outfall pipe/diffuser system from landfall to its ocean terminus. In addition, at least once per year, an outfall inspection will be conducted to check the structural integrity and possible external blockage of ports by sand and/or silt deposition. The two inspections may be conducted together or in different months in order to optimize the underwater conditions and visibility for conducting each inspection. Results of the outfall inspections shall be reported in the applicable annual report.

Also see:

Attachment E: Table E-1 Monitoring Station Locations:

Leak Station - Leak along the outfall line approximately on the 65 foot line.

As you know, in CA enforcement of NPDES permits is the responsibility of the regional water boards.

Best,  
Deb



On Wednesday, October 9, 2019, 4:50:14 PM PDT, Becky Steinbruner <ki6tkb@yahoo.com> wrote:

Dear Ms. Rodriguez,

I wonder if you have had an opportunity to investigate the issues that I wrote you about on October 1, 2019? I am still concerned and would appreciate your response.

Thank you very much.

Sincerely,  
Becky Steinbruner

On Tuesday, October 1, 2019, 01:14:41 AM UTC, Becky Steinbruner <ki6tkb@yahoo.com> wrote:

Dear Ms. Rodriguez,

I am forwarding my message below to you because I am concerned about information I read on the Santa Cruz City Wastewater Treatment website. There appears to be a rupture in the Santa Cruz City Wastewater Treatment Facility effluent outfall pipe that extends into the Monterey Bay National Marine Sanctuary.

I have been researching the issue because I am aware that Santa Cruz City has entered into an agreement with Soquel Creek Water District for a tertiary treatment plant to support a recycled water project the District is planning for the Aptos area. I have read the EIR for the PureWater Soquel Project and was surprised that NOAA did not submit comment, given that the Project would concentrate the effluent brine being disposed of in the Monterey Bay National Marine Sanctuary, as well as add unknown concentrations of disinfection and cleaning agents to the wastewater stream. One diagram shown publicly by Soquel Creek Water District appeared to return this brine effluent to the Santa Cruz City wastewater treatment outfall pipe directly, and may or may not include treatment processes before disposal into the Marine Sanctuary.

Are you aware of this Project, and also the apparent problem with the Santa Cruz City Wastewater Treatment outfall pipeline rupture described below?

Thank you very much for your response.

Sincerely,  
Becky Steinbruner

----- Forwarded Message -----

**From:** Becky Steinbruner <ki6tkb@yahoo.com>

**To:** Anne Hogan <ahogan@santacruzcity.com>

**Cc:** Rosemary Menard <rmenard@cityofsantacruz.com>; John Robertson <john.robertson@waterboards.ca.gov>; John Ricker <john.ricker@santacruzcounty.us>; Becky Steinbruner <ki6tkb@yahoo.com>

**Sent:** Sunday, September 29, 2019, 07:04:53 PM UTC

**Subject:** Re: Wondering About Disposal of Contaminants Removed in Secondary and Tertiary Wastewater Treatment?

Dear Ms. Hogan,

I have not received a response from any City staff regarding my question about the fate of contaminants in the waste water treatment facility effluent.

I have been researching the documentation available on the City website regarding CEC monitoring in the effluent outfall but found limited information available. I did read the 2018 Summary Report and noted a very narrow scope of contaminant testing reported. I also noted that the physical outfall examination that was to have been done by the City's contractor, Global Diving and Salvage, never

occurred in 2018. The City conducted a dye test and aerial inspection on December 13, 2018.

file:///home/phttp/Downloads/2018%20Annual%20Summary%20and%20Outfall%20%20Report%20.pdf

Has there been any further physical examination of the City's outfall pipe other than the dye testing performed on December 13, 2018? I note that aerial inspection of that dye test reported a plume about mid-way in the pipe:

Figure 2 - At 1:32 a dye plume was seen emanating from the pipeline along the diffuser pipe and at the outfall location A. A plume is also visible at location B-GPS coordinates of 36.939646 / - 122.057980.

Has the site of this unexpected plume at location "B" been further evaluated and / or repaired?

I am concerned about this in that if the Tertiary Treatment Facility is built at the City's wastewater treatment facility in coordination with Soquel Creek Water District's planned PureSource Water Project, the concentration of the brine contaminants will increase by fact of the removal of 1.6 million gallons of wastewater/day for the Project. The Project would return brine contaminants to the City's wastewater treatment facility and dispose of them via the effluent outfall pipe into the Monterey Bay National Marine Sanctuary.

I am aware that the City of Santa Cruz would bear responsibility for operation of the tertiary treatment facility and effluent outfall. What monitoring system would be in place for mitigation of potential increased contaminant concentration of the effluent?

I look forward to your response and thank you for any information that you can provide to help me understand these issues.

Sincerely,  
Becky Steinbruner

On Saturday, August 24, 2019, 05:05:24 PM UTC, Becky Steinbruner <ki6tkb@yahoo.com> wrote:

Dear Ms. Hogan,  
I determined from the City of Santa Cruz Wastewater Treatment website that you are the Director of that facility, so I am writing you with hope that you can help me better understand the issue of disposal of contaminants removed from the treatment facility.

I have been reading interesting studies about the effects of opioids on aquatic organisms and wonder how the City of Santa Cruz Wastewater Treatment Facility disposes of pharmaceuticals removed from the wastewater it treats? I toured the facility a few years ago, so am aware that the solids removed are trucked away on a daily basis for off-site composting.

However, I wonder what happens to the pharmaceuticals and personal care products that are removed in the secondary treatment process?

How are those currently disposed of? How would that disposal change with the tertiary treatment process the City is planning to include as part of the agreement with Soquel Creek Water District?

I am interested in this issue, having read studies like this one: <https://cen.acs.org/environment/water/opioids-down-drain-scientists-tracking/97/i16> and worry about the environmental impact of the rising pharmaceutical levels in the wastewater sources. I would appreciate any information that you could provide about the levels of contaminants that are currently being tested for at the City Wastewater Treatment Facility, and if there are plans to expand the level of sampling and or testing.

Thank you very much for your help.  
Sincerely,  
Becky Steinbruner

## Central Coast Regional Water Quality Control Board

ORDER NO. R3-2017-0030

NPDES NO. CA0048194

### WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF SANTA CRUZ WASTEWATER TREATMENT FACILITY DISCHARGE TO THE PACIFIC OCEAN

The following Discharger is subject to waste discharge requirements (WDRs) set forth in this Order:

**Table 1. Discharger Information**

<b>Discharger</b>	City of Santa Cruz
<b>Name of Facility</b>	City of Santa Cruz Wastewater Treatment Facility
<b>Facility Address</b>	110 California Street
	Santa Cruz, CA 95060
	Santa Cruz County

**Table 2. Discharge Location**

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Secondary Treated Wastewater and Facility Stormwater	36.935556° North	122.068889° West	Pacific Ocean (Monterey Bay National Marine Sanctuary)
002	Disinfected Tertiary Recycled Municipal Wastewater	—	—	Reclamation Use

**Table 3. Administrative Information**

This Order was adopted on:	<b>December 7, 2017</b>
This Order shall become effective on:	<b>January 26, 2018</b>
This Order shall expire on:	<b>January 25, 2023</b>
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	<b>July 29, 2022</b>
The U.S. Environmental Protection Agency (U.S. EPA) and the Central Coast Water Board have classified this discharge as follows:	<b>Major discharge</b>



I, John M. Robertson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coast Region on the date indicated above.

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John M. Robertson, Executive Officer

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## I. FACILITY INFORMATION

Information describing the City of Santa Cruz Wastewater Treatment Facility (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

## II. FINDINGS

The California Regional Water Quality Control Board, Central Coast Region (hereinafter Central Coast Water Board) finds:

- A. Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.
- B. Background and Rationale for Requirements.** The Central Coast Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, and V.B are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- D. Notification of Interested Parties.** The Central Coast Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- E. Consideration of Public Comment.** The Central Coast Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order R3-2010-0043 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Coast Water Board from taking enforcement action for past violations of the previous Order.

## III. DISCHARGE PROHIBITIONS

- A.** Discharge of treated wastewater to the Pacific Ocean at a location other than as described by this Order at 36.935556° N Latitude, 122.068889° W Longitude is prohibited.
- B.** Discharge of any waste in any manner other than as described by this Order is prohibited.
- C.** The effluent dry weather average monthly rate of discharge from the wastewater treatment facility shall not exceed a monthly average of 17 million gallons per day (MGD).

- D. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the Ocean is prohibited.
- E. Federal law prohibits the discharge of sludge by pipeline to the Ocean. The discharge of municipal or industrial waste sludge directly to the Ocean or into a waste stream that discharges to the Ocean is prohibited. The discharge of sludge digester supernatant, without further treatment, directly to the Ocean or to a waste stream that discharges to the Ocean is prohibited.
- F. The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.G (Bypass), is prohibited.
- G. The Discharge of materials and substances in the wastewater that result in the following are prohibited:
  - 1. float or become floatable upon discharge;
  - 2. may form sediments which degrade benthic communities or other aquatic life;
  - 3. accumulate to toxic levels in marine waters, sediments or biota;
  - 4. decrease the natural light to benthic communities and other marine life; and
  - 5. result in aesthetically undesirable discoloration of the ocean surface.

#### IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

##### A. Effluent Limitations – Discharge Point 001

##### 1. Final Effluent Limitations – Discharge Point 001

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001 with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E:

**Table 4. Effluent Limitations for Conventional Pollutants**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Organic Carbon (TOC) <sup>[1]</sup>	mg/L	17	23	--	--	--
	lbs/day <sup>[2]</sup>	2,412	3,263	--	--	--
Total Suspended Solids(TSS)	mg/L	30	45	--	--	--
	lbs/day	4,253	6,380	--	--	--
Oil and Grease	mg/L	25	40	75	--	--
	lbs/day <sup>[2]</sup>	3,544	5,671	10,634	--	--
pH <sup>[3]</sup>	Standard units	--	--	--	6.0	9.0
Settleable Solids	ml/L	1.0	1.5	3.0	--	--
Turbidity	NTU	75	100	225	--	--

<sup>[1]</sup> As allowed by 40 CFR §133.104, the Executive Officer of the Central Coast Water Board has determined that the Discharger has demonstrated an adequately robust statistical correlation between TOC and BOD<sub>5</sub> at this facility and has approved the establishment of effluent limitations for TOC to meet the technology-based effluent limitation for BOD<sub>5</sub>. A detailed discussion of the approved correlation is provided in section IV.B of the Fact Sheet (Attachment F).

<sup>[2]</sup> For flows equal to or less than 17 MGD, the effluent mass emission rate shall not exceed the maximum allowable mass emission rate.

- [3] Excursions from the effluent limit range are permitted subject to the following limitations (40 CFR Section 401.17):
- The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and
  - No individual excursion from the range of pH values shall exceed 60 minutes.

Note: 40 CFR 401.17(2)(c) notes that, for the purposes of 40 CFR 401.17, "excursion" is defined as "an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines." The State Board may adjust the requirements set forth in paragraph 40 CFR 401.17(a) with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration, or other technical factors.

## 2. Toxic Pollutants

The Discharger shall maintain compliance with the following effluent limitations for toxic pollutants at Discharge Point 001, with compliance measured at Monitoring Location EFF-001, as described in the attached MRP.

**Table 5. Effluent Limitations for the Protection of Marine Aquatic Life**

Parameter	Units	Effluent Limitations		
		6-Month Median <sup>[1]</sup>	Daily Maximum <sup>[2]</sup>	Instantaneous Maximum <sup>[3]</sup>
Cyanide, Total <sup>[4]</sup>	µg/L	140	560	1,400
Total Chlorine Residual	µg/L	280	1,100	8,400
Acute Toxicity	TUa	--	42	--
Chronic Toxicity	TUc	--	140	--
Endosulfan <sup>[5]</sup>	µg/L	1.3	2.5	3.8
Endrin	µg/L	0.28	0.56	0.84
HCH <sup>[6]</sup>	µg/L	0.56	1.1	1.7
Radioactivity	Not to exceed limits specified in California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443			

- [1] The six-month median shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. The six-month median limit on daily mass emissions shall be determined using the six-month median effluent concentration as  $C_e$  and the observed flow rate  $Q$  in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).
- [2] The daily maximum shall apply to flow weighted 24-hour composite samples. The daily maximum mass emission shall be determined using the daily maximum effluent concentration limit as  $C_e$  and the observed flow rate  $Q$  in millions of gallons per day (each variable referring to Equation 3 of the Ocean Plan).
- [3] The instantaneous maximum shall apply to grab sample determinations.
- [4] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board (subject to U.S. EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 C.F.R. part 136, as revised May 14, 1999.
- [5] Endosulfan shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.
- [6] HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.



**Table 6. Effluent Limitations for the Protection of Human Health – (Non-Carcinogens)**

Parameter	Units	Average Monthly
Acrolein	µg/L	3.1E+04
Bis(2-Chloroethoxy)Methane	µg/L	6.2E+02
Bis(2-Chloroisopropyl)Ether	µg/L	1.7E+05
Chlorobenzene	µg/L	8.6E+04
Di-n-Butyl Phthalate	µg/L	4.9E+05
Dichlorobenzenes <sup>[1]</sup>	µg/L	7.1E+05
Diethyl Phthalate	µg/L	4.6E+06
Dimethyl Phthalate	µg/L	1.1E+08
4,6-Dinitro-2-methylphenol	µg/L	3.1E+04
2,4-Dinitrophenol	µg/L	5.6E+02
Ethylbenzene	µg/L	5.7E+05
Hexachlorocyclopentadiene	µg/L	8.1E+03
Nitrobenzene	µg/L	6.9E+02
Toluene	µg/L	1.2E+07
Tributyltin	µg/L	2.0E-01
1,1,1-Trichloroethane	µg/L	7.6E+07

[1] Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.

**Table 7. Effluent Limitations for the Protection of Human Health – (Carcinogens)**

Parameter	Units	Average Monthly
Acrylonitrile	µg/L	1.4E+01
Aldrin	µg/L	3.1E-03
Benzene	µg/L	8.3E+02
Benzidine	µg/L	9.7E-03
Beryllium	µg/L	4.6
Bis(2-chloroethyl) ether	µg/L	6.3
Bis(2-ethylhexyl) phthalate	µg/L	4.9E+02
Carbon Tetrachloride	µg/L	1.3E+03
Chlordane[1]	µg/L	3.2E-03
Chlorodibromomethane	µg/L	1.2E+03
DDT[2]	µg/L	2.4E-02
1,4-Dichlorobenzene	µg/L	2.5E+03
3,3-Dichlorobenzidine	µg/L	1.1
1,2-Dichloroethane	µg/L	3.9E+03
1,1-Dichloroethylene	µg/L	1.3E+02
Dichlorobromomethane	µg/L	8.7E+02
Dichloromethane	µg/L	6.3E+04
Dieldrin	µg/L	5.6E-03
2,4-Dinitrotoluene	µg/L	3.6E+02

Parameter	Units	Average Monthly
1,2-Diphenylhydrazine	µg/L	2.2E+01
Halomethanes[3]	µg/L	1.8E+04
Heptachlor	µg/L	7.0E-03
Heptachlor Epoxide	µg/L	2.8E-03
Hexachlorobenzene	µg/L	2.9E-02
Hexachlorobutadiene	µg/L	2.0E+03
Hexachloroethane	µg/L	3.5E+02
Isophorone	µg/L	1.0E+05
N-nitrosodimethylamine	µg/L	1.0E+03
N-nitrosodi-N-propylamine	µg/L	5.3E+01
N-nitrosodiphenylamine	µg/L	3.5E+02
PAHs[4]	µg/L	1.2
PCBs[5]	µg/L	2.7E-03
TCDD Equivalents[6]	µg/L	5.5E-07
1,1,2,2-Tetrachloroethane	µg/L	3.2E+02
Tetrachloroethylene	µg/L	2.8E+02
Toxaphene	µg/L	2.9E-06
Trichloroethylene	µg/L	3.8E+03
1,1,2-Trichloroethane	µg/L	1.3E+03
2,4,6-Trichlorophenol	µg/L	4.1E+01
Vinyl Chloride	µg/L	5.0E+03

[1] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordenegamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

[2] DDT shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

[3] Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride).

[4] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

[5] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

[6] TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1

2,3,7,8 hepta CDFs 0.01  
octa CDF 0.001

### 3. Percent Removal

The average monthly percent removal of BOD<sub>5</sub>, TOC, and TSS shall not be less than 85 percent.

### 4. Bacteria

The following total coliform, fecal coliform, and enterococcus effluent limits apply if the Executive Officer concludes from a bacterial assessment (described in Receiving Water Limitation A.1) that the discharge consistently exceeds Receiving Water Limitation A.1.

- The daily maximum total coliform density shall not exceed 139,000 MPN/100 mL.
- The daily maximum fecal coliform density shall not exceed 27,800 MPN/100 mL.
- The daily maximum enterococcus density shall not exceed 4,879 MPN/100 mL.

### B. Land Discharge Specifications – Not Applicable

### C. Recycling Specifications - Discharge Point 002

In the future the Discharger may design, construct, and operate a treatment facility to produce tertiary-treated wastewater. Water reclamation standards requirements have been added to this permit to allow the Discharger to produce recycled water pending State Water Resources Control Board's Division of Drinking Water approval.

- Reclamation and use of tertiary treated wastewater shall adhere to applicable requirements of CWC sections 13500-13577 (Water Reclamation); California Code of Regulations title 17, sections 7583-7586; title 17 sections 7601-7605; and title 22, sections 60301-60355 (Uniform Statewide Recycling Criteria). Specifications related to recycled water production are also included here.
- Recycled water production shall comply with a title 22 engineering report approved by the Division of Drinking Water that demonstrates or defines compliance with the Uniform Statewide Recycling Criteria (and amendments).
- Recycled water shall be disinfected tertiary recycled water, as defined by title 22, section 60301.230.
- Recycled water shall be adequately oxidized, filtered, and disinfected, as defined in title 22.
- The Discharger shall comply with the following specifications at Discharge Point No. 002 for reclamation of tertiary treated secondary wastewater, with compliance measured at Monitoring Location EFF-002, as described in the attached MRP.

**Table 6. Disinfected Tertiary Recycled Water Limitations**

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
BOD <sub>5</sub>	mg/L	10	20
TSS	mg/L	10	20

- Recycled water shall not exceed any of the following turbidity limits:

- a. An average of 2 NTU within a 24-hour period,
  - b. 5 NTU more than 5 percent of the time within a 24-hour period, and
  - c. 10 NTU at any time.
7. The median concentration of total coliform bacteria measured in the disinfected recycled water shall not exceed the following limits:
  - a. An MPN of 2.2 per 100 mL utilizing the bacteriological results of the last seven days for which analyses have been completed,
  - b. An MPN of 23 per 100 mL in more than one sample in any 30 day period, and
  - c. No sample shall exceed an MPN of 240 total coliform bacteria per 100 mL.
8. Freeboard shall always exceed two feet in all recycled water storage ponds.
9. The Discharger shall discontinue delivery of recycled water to distributors and users during any period in which it has reason to believe that the limits established in this Order are not being met. The delivery of recycled water shall not be resumed until all conditions that caused the limits to be violated have been corrected.
10. Recycled water shall not exceed any maximum contaminant level established pursuant to sections 116275(c)(1) and (d) of the California Health and Safety Code or established by the U.S. Environmental Protection Agency.
11. Recycled water disinfected with chlorine shall have a CT value (chlorine concentration time modal contact time) of not less than 450 mg-min/L at all times with a modal contact time of at least 90 minutes based on a flow of 2.5 MGD. Monthly average flow of chlorinated recycled water shall not exceed 2.5 MGD or the total monthly demand of the users.
12. No impoundment of treated effluent shall occur within 100 feet of any domestic water supply well.
13. Reclaimed water shall be confined to areas of authorized use without discharge to surface waters or drainage ways.
14. Personnel involved in producing, transporting, or using reclaimed water shall be informed of possible health hazards that may result from contact and use of reclaimed water.
15. Spray irrigation of reclaimed water shall be accomplished at a time and in a manner to minimize ponding and contact with the public.
16. Delivery of reclaimed water shall be discontinued when these Reclamation Specifications cannot be met.
17. All reclamation reservoirs and other areas with public access shall be posted, in English and Spanish, to warn the public that reclaimed wastewater is being stored or used.
18. Reclaimed water systems shall be properly labeled and regularly inspected to ensure proper operation, absence of leaks, and absence of illegal connections.

## **V. RECEIVING WATER LIMITATIONS**

### **A. Surface Water Limitation**

The following receiving water limitations are based on water quality objectives contained in the Ocean Plan and are a required part of this Order. Compliance shall be determined from

samples collected at stations representative of the area within the waste field where initial dilution is completed.

## 1. Bacterial Characteristics

- a. Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Regional Water Board, but including all kelp beds, the following bacteriological objectives shall be maintained throughout the water column.

30-Day Geometric Mean – The following standards are based on the geometric mean of the five most recent samples from each receiving water monitoring location.

- i. Total coliform density shall not exceed 1,000 CFU per 100 mL, nor shall a single sample density;
- ii. Fecal coliform density shall not exceed 200 CFU per 100 mL; and
- iii. Enterococcus density shall not exceed 35 CFU per 100 mL.

Single Sample maximum

- i. Total coliform density shall not exceed 10,000 CFU per 100 ml;
- ii. Fecal coliform density shall not exceed 400 CFU per 100 mL; and
- iii. Enterococcus density shall not exceed 104 CFU per 100 mL; and
- iv. Total coliform density shall not exceed 1,000 CFU per 100 mL when the fecal coliform to total coliform ratio exceeds 0.1

## 2. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacteriological objectives shall be maintained throughout the water column:

- a. The median total coliform density shall not exceed 70 organisms per 100 mL, and in not more than 10 percent of samples shall coliform density exceed 230 organisms per 100 mL. These samples shall be taken weekly from the following designated areas along the nearshore of Santa Cruz:

Nearshore Sample Site	Latitude	Longitude
Natural Bridges	36.949485° North	122.057751° West
Mitchell's Cove	36.952438° North	122.041224° West
Cowell's	36.960704° North	122.024305° West
Cowell's-BC	36.961470° North	122.023339° West
Cowell's-C	36.961623° North	122.023142° West
Cowell's-CW	36.961759° North	122.022927° West
Wharf-West	36.961894° North	122.022736° West
Wharf-East	36.961995° North	122.022464° West



Main-A	36.962058° North	122.022199° West
Main-B	36.962115° North	122.021936° West
Main-C	36.962189° North	122.021679° West
Main	36.962447° North	122.021114° West
Seabright	36.962790° North	122.008898° West

- b. The analytical data from these samples may be used for evidence of sanitary surveys if exceedances are recorded at the stations monitored monthly along the 30 foot contour. The North latitude and West longitude information above are approximate for administrative purposes.

### 3. Physical Characteristics

- a. Floating particulates and grease and oil shall not be visible.
- b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.
- c. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.
- d. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
- e. Temperature of the receiving water shall not be altered to adversely affect beneficial uses, as set forth in the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California.

### 4. Chemical Characteristics

- a. The dissolved oxygen concentration shall not, at any time, be depressed more than 10 percent from that which occurs naturally, or fall below 5.0 mg/L.
- b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally, and shall be within the range of 7.0 to 9.0 at all times.
- c. The dissolved sulfide concentrations of waters in and near sediments shall not be significantly increased above that present under natural conditions.
- d. The concentrations of substances set forth in Table 1 of the Ocean Plan shall not be increased in marine sediments to that which would degrade indigenous biota.
- e. The concentration of organic materials in marine sediments shall not be increased to that which would degrade marine life.
- f. Nutrient materials shall not cause objectionable aquatic growth or degrade indigenous biota.

### 5. Biological Characteristics

- a. Marine communities, including vertebrate, and plant species, shall not be degraded.
- b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.
- c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

**6. Radioactivity**

- a. Discharge of radioactive waste shall not degrade marine life.
- b. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

**7. General Standards**

- a. The discharge shall not cause a violation of any applicable WQO or standard for receiving waters adopted by the Central Coast Water Board or State Water Board, as required by the CWA and regulations adopted thereunder.
- b. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.
- c. Waste effluents shall be discharged in a manner that provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.

**B. Groundwater Limitations**

Activities at the facility shall not cause exceedance/deviation from the following water quality objectives for groundwater established by the Basin Plan.

1. Groundwater shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses.
2. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

**VI. PROVISIONS**

**A. Standard Provisions**

1. The Discharger shall comply with all Standard Provisions included in Attachment D.
2. The Discharger shall comply with all Central Coast Water Board specific Standard Provisions also included in Attachment D of this Order.

**B. Monitoring and Reporting Program (MRP) Requirements**

Pursuant to Water Code sections 13267 and 13383, the Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order, and all notification and general reporting requirements throughout this Order and Attachment D. Where notification or general reporting requirements conflict with those stated in the MRP (e.g., annual report due date), the Discharger shall comply with the MRP requirements. All monitoring shall be conducted according to 40 C.F.R. part 136, Guidelines Establishing Test Procedures for Analysis of Pollutants.

The Discharger is required to provide technical or monitoring reports because it is the owner and operator responsible for the waste discharge and compliance with this Order. The Central Coast Water Board needs the information to determine the Discharger's compliance with this Order, assess the need for further investigation or enforcement action, and to protect public health and safety and the environment.

## **C. Special Provisions**

### **1. Reopener Provisions**

- a. This Order may be reopened and modified in accordance with NPDES regulations at 40 C.F.R. parts 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any U.S. EPA approved, new state water quality objective.
- b. This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a California Ocean Plan Table 1 water quality objective.

### **2. Special Studies, Technical Reports and Additional Monitoring Requirements**

The Discharger shall notify the Regional Water Board and USEPA in writing within 14 days of exceedance of a chronic toxicity trigger of 140 TUc. This notification shall describe actions the Discharger has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

#### **a. Toxicity Reduction Requirements**

If the discharge consistently exceeds an effluent limitation for toxicity specified by Section III of this Order, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) defined in Attachment A in accordance with the Discharger's TRE Workplan.

TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases - characterization, identification, and confirmation using aquatic organism toxicity tests. The TRE shall include all reasonable steps to identify the source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

The Discharger shall maintain a TRE Workplan, which describes steps that the Discharger intends to follow in the event that a toxicity effluent limitation established by this Order is exceeded in the discharge. The workplan shall be prepared in accordance with current technical guidance and reference material, including:

- i. Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/833/B-99-022).
- ii. Toxicity Identification Evaluation, Phase I (EPA/600/6-91/005F).

iii. Methods for Aquatic Toxicity Identification Evaluations, Phase II (EPA/600/R-92/080).

iv. Methods for Aquatic Toxicity Identification Evaluations, Phase III (EPA/600/R-92/081).

At a minimum, the TRE Workplan shall include:

- i. Actions that will be taken to investigate/identify the causes/sources of toxicity,
- ii. Actions that will be evaluated to mitigate the impact of the discharge, to correct the non-compliance, and/or to prevent the recurrence of acute or chronic toxicity (this list of action steps may be expanded, if a TRE is undertaken), and
- iii. A schedule under which these actions will be implemented.

When monitoring measures toxicity in the effluent above 140 TUc, the Discharger shall resample immediately, if the discharge is continuing, and retest for chronic toxicity. Results of an initial failed test and results of subsequent monitoring shall be reported to the Executive Officer (EO) as soon as possible following receipt of monitoring results, not to exceed 15 days from the conclusion of each test. The EO will determine whether to initiate enforcement action, whether to require the Discharger to implement a Toxicity Reduction Evaluation, or to implement other measures. When the Executive Officer requires the Discharger to conduct a TRE, the TRE shall be conducted giving due consideration to guidance provided by the USEPA's *Toxicity Reduction Evaluation Procedures, Phases 1, 2, and 3* (EPA document Nos. EPA 600/R-91/003, 600/6/91/005F, and 600/R-92/080, and 600/R-92/081, respectively). A TRE, if necessary, shall be conducted in accordance with the following schedule.

**Table 8. Toxicity Reduction Evaluation—Schedule**

Action Step	When Required
Take all reasonable measures necessary to immediately reduce toxicity, where the source is known.	Within 24 hours of identification of noncompliance.
Initiate the TRE in accordance to the Workplan.	Within 7 days of notification by the EO
Conduct the TRE following the procedures in the Workplan.	Within the period specified in the Workplan (not to exceed one year, without an approved Workplan).
Submit the results of the TRE, including summary of findings, required corrective action, and all results and data.	Within 60 days of completion of the TRE.
Implement corrective actions to meet Permit limits and conditions.	To be determined by the EO.

**b. Initial Investigation TRE Workplan for Whole Effluent Toxicity**

Within 90 days of the permit effective date, the Discharger shall prepare and submit an updated copy of their Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan (1-2 pages) to the Central Coast Water Board for review. This plan shall include steps the Discharger intends to implement if toxicity is measured above a toxicity trigger and should include, at minimum:

- i. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
- ii. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.
- iii. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

This workplan is subject to approval and modification by the Regional Water Board.

**c. Accelerated Toxicity Testing and TRE/TIE Process for Whole Effluent Toxicity**

- i. If the toxicity trigger is exceeded and the source of toxicity is known (e.g., a temporary plant upset), then the Discharger shall conduct one additional toxicity test using the same species and test method. This test shall begin within 14 days of receipt of test results exceeding the toxicity trigger. If the additional toxicity test does not exceed the toxicity effluent trigger, then the Discharger may return to their regular testing frequency.
- ii. If the toxicity trigger is exceeded and the source of toxicity is not known, then the Discharger shall conduct six additional toxicity tests using the same species and test method, approximately every two weeks, over a 12 week period. This testing shall begin within 14 days of receipt of test results exceeding the toxicity trigger. If none of the additional toxicity tests exceed the toxicity trigger, then the Discharger may return to their regular testing frequency.
- iii. If one of the additional toxicity tests exceeds the toxicity trigger, then the Discharger shall notify the Executive Officer and Director. If the Executive Officer and Director determine that the discharge consistently exceeds the toxicity trigger, then the Discharger shall initiate a TRE using as guidance the USEPA manuals: Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA 833/B-99/002, 1999) or Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPN600/2-88/070, 1989). In conjunction, the Discharger shall develop and implement a detailed TRE Workplan which shall include: further actions undertaken by the Discharger to investigate, identify, and correct the causes of toxicity; actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity, and a schedule for these actions. This Detailed TRE Workplan and schedule are subject to approval and modification by the Regional Water Board and USEPA.
- iv. As part of a TRE, the Discharger may initiate a Toxicity Identification Evaluation (TIE) using the same species and test method, and USEPA TIE guidance manuals-to identify the causes of toxicity. The USEPA TIE guidance manuals are: Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I (EPN600/6-91/005F, 1992; only chronic toxicity); Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPN600/6-91/003, 1991; only acute toxicity); Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPN600/R-92/080, 1993); Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity



(EPN600/R-92/081 , 1993); and Marine Toxicity Identification Evaluation (TIE):  
Phase I Guidance Document (EPN600/R-96-054, 1996).

d. **Water Contact Monitoring (Bacterial Characteristics)**

In accordance with California Ocean Plan section III.D.1.b, if a single sample exceeds any of the bacteriological single sample maximum (SSM) standards contained within section V.A.1 of this Order, repeat sampling at that location shall be conducted to determine the extent and persistence of the exceedance. Repeat sampling shall be conducted within 24 hours of receiving analytical results and continued daily until the sample result is less than the SSM standard or until a sanitary survey is conducted to determine the source of the high bacterial densities.

When repeat sampling is required because of an exceedance of any one single sample density, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

e. **Infiltration/Inflow and Spill Prevention Program Requirements**

The City of Santa Cruz shall continue to implement an Infiltration/Inflow and Spill Prevention Program (Program) to address problems associated with infiltration (e.g., groundwater entering into the collection system through defective pipe joints or connections to manholes), and inflow (e.g., stormwater entering manhole covers). The Program shall be reviewed and updated as necessary by September 1 of every year, and shall be incorporated into the CSMP.

- i. The Program shall be developed in accordance with good engineering practices and shall address the following objectives:
  - (a) Identify infiltration and inflow sources that may affect treatment facility operation or possibly result in overflow or exceed pump station capacity; and,
  - (b) Identify, assign, and implement spill prevention measures and collection system management practices to ensure overflows and contribution of pollutants or incompatible wastes to Discharger's treatment system are minimized.
- ii. The Discharger shall make a copy of the Program available upon request to a representative of the Regional Water Board, State Water Board, or USEPA.
- iii. The Program shall provide a description of the collection and transport system, measures used to ensure proper operation, and other information necessary to determine compliance with these requirements. The Program shall include, at a minimum, the following items:
  - (a) A map showing: collection system lines greater than 12 inches, pump stations, standby power facilities, surface water bodies (including discharge point(s) where pump station overflows may occur), storm drain inlets, and date of last revision.
  - (b) A narrative description of the following:

- (1) Available equipment and cleaning schedule to clean and flush the system every two years, and assigned staff
  - (2) Coordination with plumbers to address introduction of wastes during lateral cleaning;
  - (3) Visual inspection methods and frequency. Inspection records shall be retained for five years;
  - (4) Current and five-year projected investigation methods, frequency, results, and efforts to reduce stormwater inflows and collection system exfiltration. Inspection records shall be retained for five years;
  - (5) A projected schedule to replace failing pipelines. Separately list each project or reach of conveyance to be replaced, along with proposed start and estimated completion dates;
  - (6) Pump stations, location, flow monitoring, and the previous year's operational problems and overflows;
  - (7) Alternate power supply for each pump station.
- iv. The Program shall report staff available to operate the system. The Program shall include, at a minimum, the following items:
- (a) Personnel: Identify specific individuals (and job titles) who are responsible for developing, implementing, and revising the Program. Provide an organizational chart of all staff, positions, duties, and training received during the past year. Identify managers and provide list of contacts with associated telephone numbers.
  - (b) Training: List the frequency of training, the qualifications of each employee, and coordination efforts between the City and the Districts. Periodic dates for training shall be identified.
- v. The Program shall describe planning efforts and reporting of system operation. The Program shall include, at a minimum, the following items:
- (a) A spill response plan, and identify employees responsible and duties necessary to implement the City's responses to spills. Identify posting, notification, and spill estimation practices used.
  - (b) Annual Reporting List spills or system problems during the previous year, cleanups, amounts, locations, and corrective actions taken to ensure similar spills or problems do not recur. A tracking or follow-up procedures
  - (c) Offsite and Onsite Spill Alarms: Describe the current or proposed alarm system (or why unnecessary), central information location, staffing, and response times for detecting spills from the system.
  - (d) Wet Season Manhole Inspections: Describe or propose frequency to conduct inspections to detect line blockage during wet season flows and to

avoid system overflows, staffing, and available and anticipated equipment to ensure safe and effective inspections.

- (e) Capital Improvement: Describe a current and projected work plan;
  - (f) Five-Year Planning: Describe projected planning efforts.
  - (g) Describe long-term planning efforts.
- vi. The Discharger shall provide an annual report, by March 1st of each year describing program development and permit compliance over the previous calendar year. The reports shall be of sufficient content as to enable the Regional Board to determine compliance with all requirements.

**f. Ocean Outfall and Diffuser Monitoring**

At least once per year, the Discharger shall conduct a dye dilution study to visually inspect the entire outfall structure to determine whether there are leaks, potential leaks, or malfunctions. This inspection shall be collected along the outfall pipe/diffuser system from landfall to its ocean terminus. In addition, at least once per year, an outfall inspection will be conducted to check the structural integrity and possible external blockage of ports by sand and/or silt deposition. The two inspections may be conducted together or in different months in order to optimize the underwater conditions and visibility for conducting each inspection. Results of the outfall inspections shall be reported in the applicable annual report.

**3. Best Management Practices and Pollution Prevention**

**a. Pollutant Minimization Program**

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

- i. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML;
- ii. The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4: and
- iii. There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation. Such evidence may include: health advisories for fish consumption; presence of whole effluent toxicity; results of benthic or aquatic organism tissue sampling; sample results from analytical methods more sensitive than methods included in the permit; and the concentration of the pollutant is reported as DNQ and the effluent limitation is less than the MDL.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Central Coast Water Board:

- i. An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- ii. Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;
- iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;
- iv. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and
- v. An annual status report that shall be sent to the Central Coast Water Board including:
  - (a) All PMP monitoring results for the previous year;
  - (b) A list of potential sources of the reportable pollutant(s);
  - (c) A summary of all actions undertaken pursuant to the control strategy; and
  - (d) A description of actions to be taken in the following year.

**4. Construction, Operation and Maintenance Specifications – Not Applicable**

**5. Special Provisions for Publicly Owned Treatment Works (POTWs)**

**a. Biosolids Management.**

Provisions regarding sludge handling and disposal ensure that such activity will comply with all applicable regulations.

40 CFR Part 503 sets forth USEPA's final rule for the use and disposal of biosolids, or sewage sludge, and governs the final use or disposal of biosolids. The intent of this federal program is to ensure that sewage sludge is used or disposed of in a way that protects both human health and the environment.

USEPA's regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the USEPA has not delegated the authority to implement the sludge program to the State of California, the enforcement of sludge requirements that apply to the Discharger remains under USEPA's jurisdiction at this time. USEPA, not the Regional Water Board, will oversee compliance with 40 CFR Part 503.

**b. Pretreatment**

The Discharger shall be responsible for the performance of all pretreatment requirements contained in 40 CFR 403 and shall be subject to enforcement actions, penalties, fines, and other remedies by the USEPA, or other appropriate parties, as

provided in the CWA, as amended (33 USA 1351 et seq.). The Discharger shall implement and enforce its Approved Publicly Owned Treatment Works (POTW) Pretreatment Program. Implementation of the Discharger's Approved POTW Pretreatment Program is hereby made an enforceable condition of this permit. USEPA may initiate enforcement action against an industrial user for non-compliance with applicable standards and requirements as provided in the CWA.

The Discharger shall enforce the requirements promulgated under Sections 307 (b), (c), & (d) and 402 (b) of the CWA. The Discharger shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403, including, but not limited to:

- i. Implement necessary legal authorities as provided in 40 CFR 403.8 (f)(1);
- ii. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
- iii. Implement the programmatic functions as provided in 40 CFR 403.8 (f)(2); and,
- iv. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8 (f)(3).

The Discharger shall submit annually a report to the USEPA - Region 9, the Regional Water Board, and the State Water Board describing the Discharger's pretreatment activities over the previous twelve months. In the event that the Discharger is not in compliance with conditions or requirements of this permit affected by the pretreatment program, it shall also include reasons for non-compliance and a statement how and when it shall comply. This annual report is due by March 31 of each year and shall contain, but not be limited to, the contents described in the "Pretreatment Reporting Requirements" contained in the Monitoring and Reporting Program No. R3-2017-0030.

## 6. Other Special Provisions

- a. **Discharges of Storm Water.** For the control of storm water discharged from the site of the wastewater treatment and disposal facilities, if applicable, the Discharger shall seek authorization to discharge under and meet the requirements of the State Water Resources Control Board's Water Quality Order 2014-0057- DWQ, NPDES General Permit No. CAS000001, *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*.
- b. **Sanitary Sewer System Requirements.** This General Permit, adopted on May 2, 2006, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows. The Discharger is enrolled under the General Permit.



- c. **Sanitary Sewer Inspection.** The Discharger shall conduct sanitary sewer surveys when so directed by the Regional Water Board or the Executive Officer. The Discharger shall control any controllable discharges identified in a sanitary sewer survey.
- d. **Additional Connections.** The Regional Water Board must approve any additional connections outside the City sewer service area to the effluent sewer main.
- e. **Discharge of Pathogenic Organisms.** Waste that contains pathogenic organisms or viruses should be discharged a sufficient distance from shellfishing and water-contact sports areas to maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area of use must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human health hazard should be used.

#### 7. Compliance Schedules – Not Applicable

### VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

- A. **General.** Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).
- B. **Multiple Sample Data.** When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
  - 1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ -determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
  - 2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

## ATTACHMENT A – DEFINITIONS

### Acute Toxicity

- a. Acute Toxicity (TUa)  
Expressed in Toxic Units Acute (TUa)

$$TUa = \frac{100}{96\text{-hr LC } 50\%}$$

- b. Lethal Concentration 50% (LC 50)  
LC 50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in Ocean Plan Appendix III. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

When it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = \frac{\log(100 - S)}{1.7}$$

where:

S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

### Areas of Special Biological Significance (ASBS)

Those areas designated by the State Water Resources Control Board (State Water Board) as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

### Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

### Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

### Chlordane

Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

### **Chronic Toxicity**

This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

a. **Chronic Toxicity (TUc)**

Expressed as Toxic Units Chronic (TUc)

$$TUc = \frac{100}{NOEL}$$

b. **No Observed Effect Level (NOEL)**

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix II.

### **Daily Discharge**

Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

### **DDT**

Shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

### **Degrade**

Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

### **Detected, but Not Quantified (DNQ)**

Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

### **Dichlorobenzenes**

Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

### **Downstream Ocean Waters**

Waters downstream with respect to ocean currents.

**Dredged Material**

Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

**Enclosed Bays**

Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

**Endosulfan**

The sum of endosulfan-alpha and -beta and endosulfan sulfate.

**Estuaries and Coastal Lagoons** are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

**Halomethanes** shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

**HCH** shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

**Initial Dilution**

The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Central Coast Water Board, whichever results in the lower estimate for initial dilution.

**Instantaneous Maximum Effluent Limitation**

The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

**Instantaneous Minimum Effluent Limitation**

The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

**Kelp Beds**

For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

**Mariculture**

The culture of plants and animals in marine waters independent of any pollution source.

**Material**

(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

**Maximum Daily Effluent Limitation (MDEL)**

The highest allowable daily discharge of a pollutant.

**Method Detection Limit (MDL)**

The minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 C.F.R. part 136, Attachment B.

**Minimum Level (ML)**

The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

**Natural Light**

Reduction of natural light may be determined by the Central Coast Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Central Coast Water Board.

**Not Detected (ND)**

Those sample results less than the laboratory's MDL.

**Ocean Waters**

The territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

**PAHs (polynuclear aromatic hydrocarbons)**

The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

**PCBs (polychlorinated biphenyls)**

The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

**Pollutant Minimization Program (PMP)**

PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table 1 pollutants through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Central Coast Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

**Reported Minimum Level**

The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Central Coast Water Board either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML.

**Shellfish**

Organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

**Significant Difference**

Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

**Six-Month Median Effluent Limitation**

The highest allowable moving median of all daily discharges for any 180-day period.

**State Water Quality Protection Areas (SWQPAs)**

Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.



### TCDD Equivalents

The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
	1.0
2,3,7,8-tetra CDD	
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

### Toxicity Reduction Evaluation (TRE)

A study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

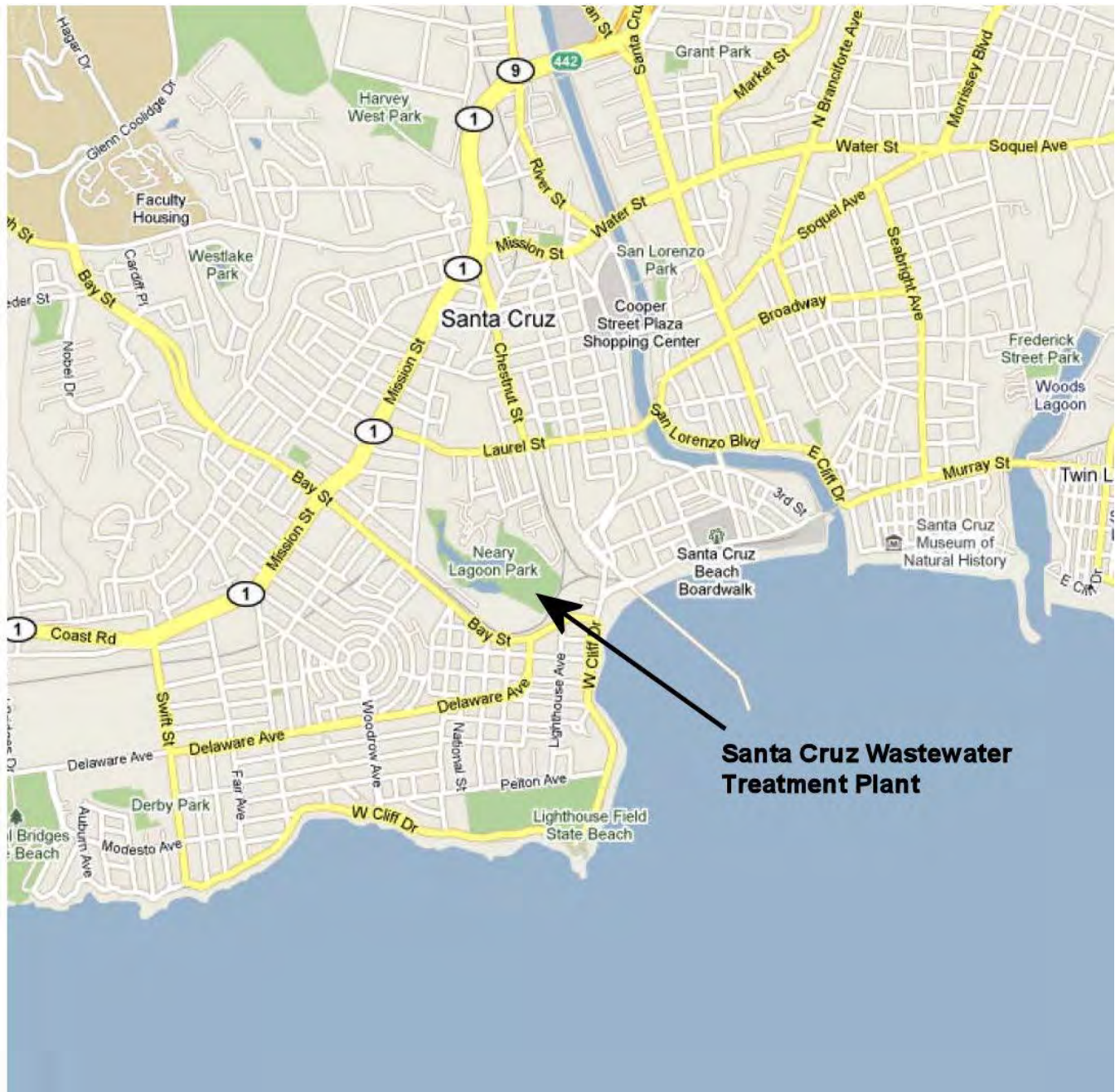
### Waste

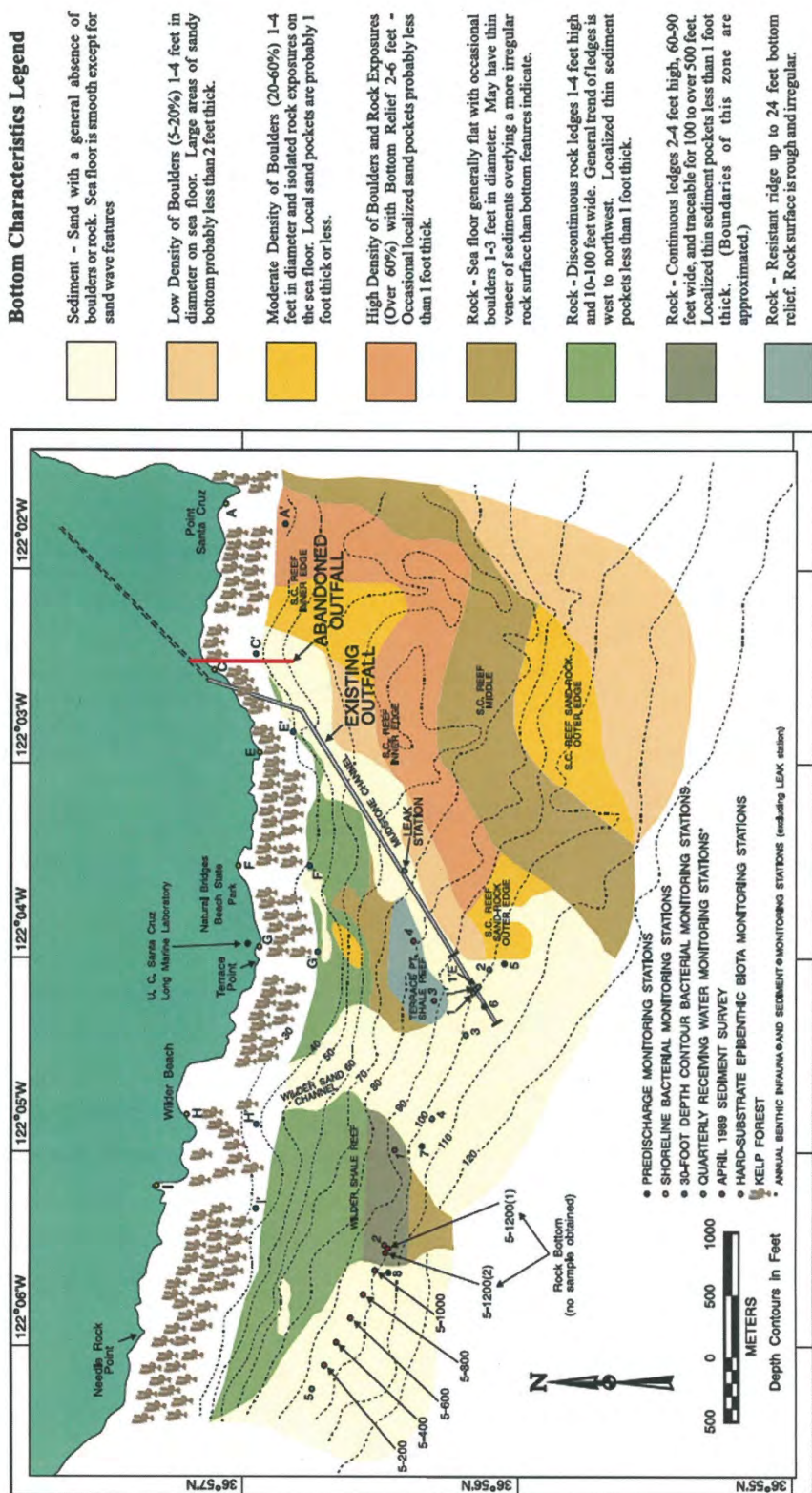
As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

### Water Recycling

The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

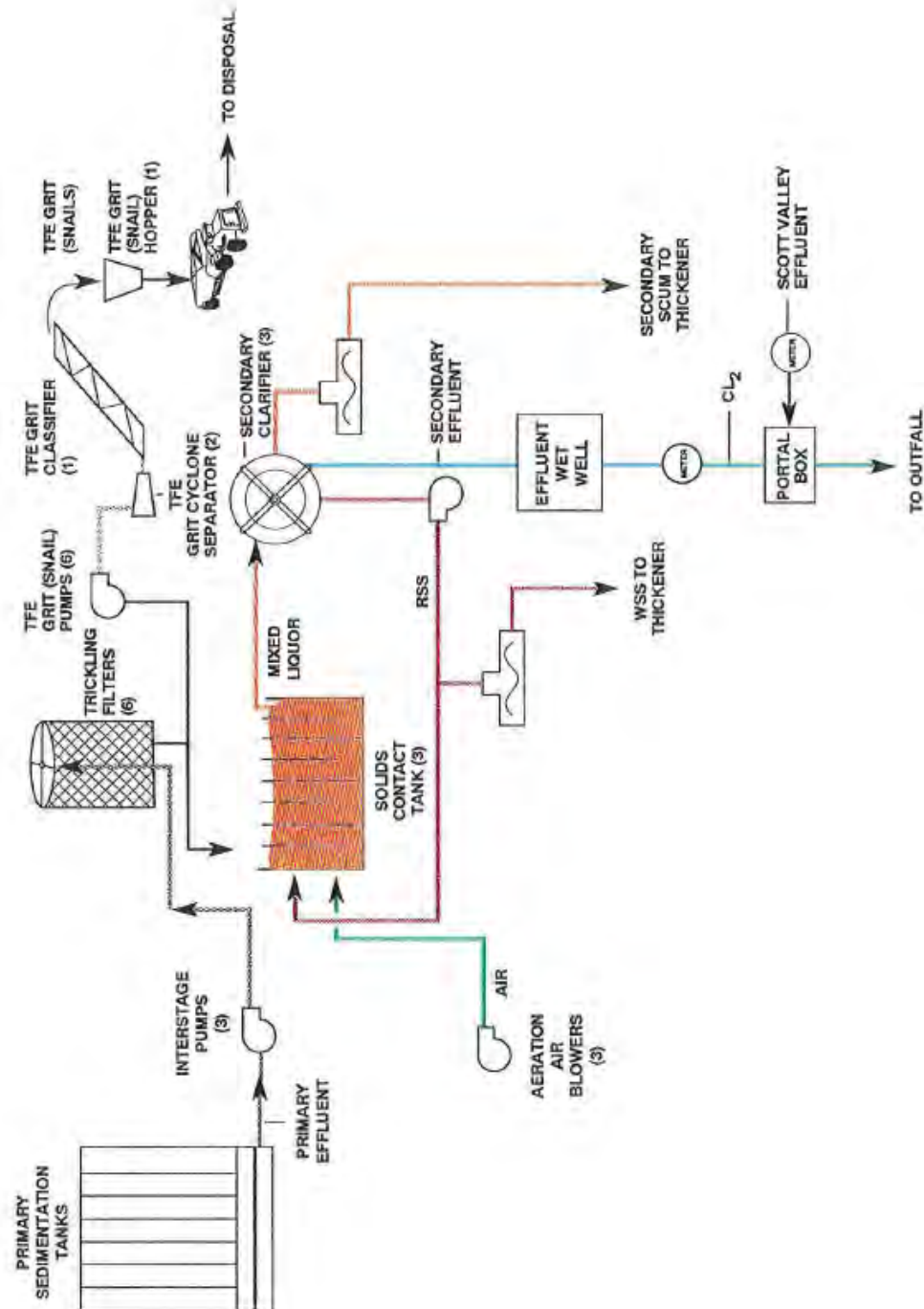
**ATTACHMENT B – MAP OF WWTP LOCATION**







# ATTACHMENT C – FLOW SCHEMATIC



## **ATTACHMENT D – STANDARD PROVISIONS**

### **I. STANDARD PROVISIONS – PERMIT COMPLIANCE**

#### **A. Duty to Comply**

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

#### **B. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

#### **C. Duty to Mitigate**

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

#### **D. Proper Operation and Maintenance**

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

#### **E. Property Rights**

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

#### **F. Inspection and Entry**

The Discharger shall allow the Central Coast Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be

required by law, to (33 U.S.C. § 1318(a)(4)(b); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(b); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

#### **G. Bypass**

1. Definitions
  - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
  - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Central Coast Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
  - c. The Discharger submitted notice to the Central Coast Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)



4. The Central Coast Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Coast Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)
5. Notice
  - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. The notice shall be sent to the Central Coast Water Board. As of December 21, 2020, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)
  - b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the Central Coast Water Board. As of December 21, 2020, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(ii).)

#### H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
  - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
  - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
  - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
  - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

## II. STANDARD PROVISIONS – PERMIT ACTION

**I. General**

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

**J. Duty to Reapply**

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

**K. Transfers**

This Order is not transferable to any person except after notice to the Central Coast Water Board. The Central Coast Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. §§ 122.41(l)(3), 122.61.)

**III. STANDARD PROVISIONS – MONITORING**

- A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- B.** Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapters N or O. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N or O. For the purposes of this paragraph, a method is sufficiently sensitive when:
  - 1.** The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
  - 2.** The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N or O for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

**IV. STANDARD PROVISIONS – RECORDS**

- A.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for 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 three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Coast Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

**B. Records of monitoring information shall include:**

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

**C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):**

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and,
2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

**V. STANDARD PROVISIONS – REPORTING**

**A. Duty to Provide Information**

The Discharger shall furnish to the Central Coast Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Central Coast Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Coast Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

**B. Signatory and Certification Requirements**

1. All applications, reports, or information submitted to the Central Coast Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 C.F.R. § 122.41(k).)
2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).)
3. All reports required by this Order and other information requested by the Central Coast Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

- b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
    - c. The written authorization is submitted to the Central Coast Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)
  4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Central Coast Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)
  5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)
  6. Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R. § 122.22(e).)

**C. Monitoring Reports**

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Coast Water Board or State Water Board for reporting the results of monitoring, sludge use, or disposal practices. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Central Coast Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

**D. Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

**E. Twenty-Four Hour Reporting**

1. The Discharger shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances to Central Coast Water Board permitting staff and the MBNMS 24 hour emergency phone number (831-236-6797) for spills into MBNMS. A report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances to the Central Coast Water Board. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Central Coast Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Central Coast Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours:
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
  - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Central Coast Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

**F. Planned Changes**

The Discharger shall give notice to the Central Coast Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R. § 122.41(l)(1)(iii).)

**G. Anticipated Noncompliance**

The Discharger shall give advance notice to the Central Coast Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 122.41(l)(2).)

**H. Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Central Coast Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(7).)

**I. Other Information**

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Coast Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

**J. Initial Recipient for Electronic Reporting Data**

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the initial recipient defined in 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 C.F.R. section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 C.F.R. § 122.41(l)(9).)

**VI. STANDARD PROVISIONS – ENFORCEMENT**

- A.** The Central Coast Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

**VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS**

**A. Publicly Owned Treatment Works (POTWs)**



All POTWs shall provide adequate notice to the Central Coast Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 C.F.R. § 122.42(b)(2).)
3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

## **VIII. CENTRAL COAST WATER BOARD STANDARD PROVISIONS**

### **A. Central Coast Standard Provision – Prohibitions**

1. Introduction of “incompatible wastes” to the treatment system is prohibited.
2. Discharge of high-level radiological waste and of radiological, chemical, and biological warfare agents is prohibited.
3. Discharge of “toxic pollutants” in violation of effluent standards and prohibitions established under section 307(a) of the Clean Water Act (CWA) is prohibited.
4. Discharge of sludge, sludge digester or thickener supernatant, and sludge drying bed leachate to drainageways, surface waters, or the ocean is prohibited.
5. Introduction of pollutants into the collection, treatment, or disposal system by and “indirect discharger” that:
  - a. Inhibit or disrupt the treatment process, system operation, or the eventual use or disposal of sludge; or,
  - b. Flow through the system to the receiving water untreated; and,
  - c. Cause or “significantly contribute” to a violation of any requirement of this Order, is prohibited.
6. Introduction of “pollutant free” wastewater to the collection, treatment, and disposal system in amounts that threaten compliance with this order is prohibited.

### **B. Central Coast Standard Provision – Provisions**

1. Collection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by California Water Code (CWC) 13050.
2. All facilities used for transport or treatment of wastes shall be adequately protected from inundation and washout as the result of a 100-year frequency flood.
3. Operation of collection, treatment, and disposal systems shall be in a manner that precludes public contact with wastewater.

4. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed in a manner approved by the Executive Officer.
5. Publicly owned wastewater treatment plans shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23 of the California Administrative Code.
6. After notice and opportunity for a hearing, this order may be terminated for cause, including, but not limited to:
  - a. Violation of any term or condition contained in this order;
  - b. Obtaining this order by misrepresentation, or by failure to disclose fully all relevant facts;
  - c. A change in any condition or endangerment to human health or environment that requires a temporary or permanent reduction or elimination of the authorized discharge; and,
  - d. A substantial change in character, location, or volume of the discharge.
7. Provisions of this permit are severable. If any provision of the permit is found invalid, the remainder of the permit shall not be affected.
8. After notice and opportunity for hearing, this order may be modified or revoked and reissued for cause, including:
  - a. Promulgation of a new or revised effluent standard or limitation;
  - b. A material change in character, location, or volume of the discharge;
  - c. Access to new information that affects the terms of the permit, including applicable schedules;
  - d. Correction of technical mistakes or mistaken interpretations of law; and,
  - e. Other causes set forth under Sub-part D of 40 CFR Part 122.
9. Safeguards shall be provided to ensure maximal compliance with all terms and conditions of this permit. Safeguards shall include preventative and contingency plans and may also include alternative power sources, stand-by generators, retention capacity, operative procedures, or other precautions. Preventative and contingency plans for controlling and minimizing the effect of accidental discharges shall:
  - a. Identify possible situations that could cause "upset," "overflow," or "bypass," or other noncompliance. (Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered).
  - b. Evaluate the effectiveness of present facilities and procedures and describe procedures and steps to minimize or correct any adverse environmental impact resulting from noncompliance with the permit.
10. Physical Facilities shall be designed and constructed according to accepted engineering practice and shall be capable of full compliance with this order when properly operated and maintained. Proper operation and maintenance shall be described in an Operation and Maintenance Manual. Facilities shall be accessible during the wet-weather season.

11. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the discharger to achieve compliance with the conditions of this order. Electrical and mechanical equipment shall be maintained in accordance with appropriate practices and standards, such as NFPA 70B, *Recommended Practice for Electrical Equipment Maintenance*; NFPA 70E, *Standard for Electrical Safety in the Workplace*; ANSI/NETA MTS *Standard for Maintenance: Testing Specifications for Electrical Power Equipment and Systems*, or procedures established by insurance companies or industry resources.
12. If the discharger's facilities are equipped with SCADA or other systems that implement wireless, remote operation, the discharger should implement appropriate safeguards against unauthorized access to the wireless systems. Standards such as NIST SP 800-53, *Recommended Security Controls for Federal Information Systems*, can provide guidance.
13. Production and use of reclaimed water is subject to the approval of the Central Coast Board. Production and use of reclaimed water shall be in conformance with reclamation criteria established in Chapter 3, Title 22, of the California Administrative Code and Chapter 7, Division 7, of the CWC. An engineering report pursuant to section 60323, Title 22, of the California Administrative Code is required and a waiver or water reclamation requirements from the Central Coast Board is required before reclaimed water is supplied for any use, or to any user, not specifically identified and approved either in this Order or another order issued by this Board.

**C. Central Coast Standard Provisions – General Monitoring Requirements**

1. If results of monitoring a pollutant appear to violate effluent limitations based on a weekly, monthly, 30-day, or six-month period, but compliance or non-compliance cannot be validated because sampling is too infrequent, the frequency of sampling shall be increased to validate the test within the next monitoring period. The increased frequency shall be maintained until the Executive Officer agrees the original monitoring frequency may be resumed.

For example, if copper is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of copper must be increased to a frequency of at least once every two months (Central Coast Standard Provisions – Definitions I.G.13.). If suspended solids are monitored weekly and results exceed the weekly average numerical limit in the permit, monitoring of suspended solids must be increased to at least four (4) samples every week (Central Coast Standard Provisions – Definitions I.G.14.).

2. Water quality analyses performed in order to monitor compliance with this permit shall be by a laboratory certified by the State Water Board for the constituent(s) being analyzed. Bioassay(s) performed in order to monitor compliance with this permit shall be in accord with guidelines approved by the State Water Board and the State Department of Fish and Wildlife. If the laboratory used or proposed for use by the discharger is not certified by the State Water Board or, where appropriate, the Department of Fish and Wildlife due to restrictions in the State's laboratory certification program, the discharger shall be considered in compliance with this provision provided:
  - a. Data results remain consistent with results of samples analyzed by the Central Coast Water Board;

- b. A quality assurance program is used at the laboratory, including a manual containing steps followed in this program that is available for inspections by the staff of the Central Coast Water Board; and,
  - c. Certification is pursued in good faith and obtained as soon as possible after the program is reinstated.
- 3. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Samples shall be taken during periods of peak loading conditions. Influent samples shall be samples collected from the combined flows of all incoming wastes, excluding recycled wastes. Effluent samples shall be samples collected downstream of the last treatment unit and tributary flow and upstream of any mixing with receiving waters.
- 4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

**D. Central Coast Standard Provisions – General Reporting Requirements**

- 1. Reports of marine monitoring surveys conducted to meet receiving water monitoring requirements of the Monitoring and Reporting Program shall include at least the following information:
  - a. A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.).
  - b. A description of sampling stations, including differences unique to each station (e.g., station location, grain size, rocks, shell litter, calcareous worm tubes, evident life, etc.).
  - c. A description of the sampling procedures and preservation sequence used in the survey.
  - d. A description of the exact method used for laboratory analysis. In general, analysis shall be conducted according to Central Coast Standard Provisions – C.1 above, and Federal Standard Provision – Monitoring III.B. However, variations in procedure are acceptable to accommodate the special requirements of sediment analysis. All such variations must be reported with the test results.
  - e. A brief discussion of the results of the survey. The discussion shall compare data from the control station with data from the outfall stations. All tabulations and computations shall be explained.
- 2. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted within 14 days following each scheduled date unless otherwise specified within the permit. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of full compliance.

3. The "Discharger" shall file a report of waste discharge or secure a waiver from the Executive Officer at least 180 days before making any material change or proposed change in the character, location, or plume of the discharge.
4. Within 120 days after the discharger discovers, or is notified by the Central Coast Water Board, that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within four (4) years, the discharger shall file a written report with the Central Coast Water Board. The report shall include:
  - a. the best estimate of when the monthly average daily dry weather flow rate will equal or exceed design capacity; and,
  - b. a schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

In addition to complying with Federal Standard Provision – Reporting V.B., the required technical report shall be prepared with public participation and reviewed, approved and jointly submitted by all planning and building departments having jurisdiction in the area served by the waste collection, treatment, or disposal facilities.

5. All "Dischargers" shall submit reports electronically to the:

State Water Board's California Integrated Water Quality System (CIWQS) database:  
<http://ciwqs.waterboards.ca.gov/>

In addition, "Dischargers" with designated major discharges shall submit a copy of each document to:

USEPA, Region 9's Discharge Monitoring Report (NetDMR) database:  
<https://netdmr.epa.gov/netdmr/public/login.htm>

Other correspondence may be sent to the Central Coast Region at:  
[centralcoast@waterboards.ca.gov](mailto:centralcoast@waterboards.ca.gov)

6. Transfer of control or ownership of a waste discharge facility must be preceded by a notice to the Central Coast Water Board at least 30 days in advance of the proposed transfer date. The notice must include a written agreement between the existing "Discharger" and proposed "Discharger" containing specific date for transfer of responsibility, coverage, and liability between them. Whether a permit may be transferred without modification or revocation and reissuance is at the discretion of the Board. If permit modification or revocation and reissuance is necessary, transfer may be delayed 180 days after the Central Coast Water Board's receipt of a complete permit application. Please also see Federal Standard Provision – Permit Action II.C.
7. Except for data determined to be confidential under CWA §308 (excludes effluent data and permit applications), all reports prepared in accordance with this permit shall be available for public inspection at the office of the Central Coast Water Board or Regional Administrator of USEPA. Please also see Federal Standard Provision – Records IV.C.
8. By January 30 of each year, the discharger shall submit an annual report to the Central Coast Water Board. The report (in CIWQS) shall contain the following:

- a. Both tabular and graphical summaries of the monitoring data obtained during the previous year.
- b. A discussion of the previous year's compliance record and corrective actions taken, or which may be needed, to bring the discharger into full compliance.
- c. An evaluation of wastewater flows with projected flow rate increases over time and the estimated date when flows will reach facility capacity.
- d. A discussion of operator certification and a list of current operating personnel and their grades of certification.
- e. The date of the facility's Operation and Maintenance Manual (including contingency plans as described in Provision B.9), the date the manual was last reviewed, and whether the manual is complete and valid for the current facility.
- f. A discussion of the laboratories used by the discharger to monitor compliance with effluent limits and a summary of performance relative to Section C, General Monitoring Requirements.
- g. If the facility treats industrial or domestic wastewater and there is no provision for periodic sludge monitoring in the Monitoring and Reporting Program, the report shall include a summary of sludge quantities, analyses of its chemical and moisture content, and its ultimate destination.
- h. If appropriate, the report shall also evaluate the effectiveness of the local source control or pretreatment program using the State Water Resources Control Board's "Guidelines for Determining the Effectiveness of Local Pretreatment Program."

**E. Central Coast Standard Provisions – General Pretreatment Provisions**

1. Discharge of pollutants by "indirect dischargers" in specific industrial sub-categories (appendix C, 40 CFR Part 403), where categorical pretreatment standards have been established, or are to be established, (according to 40 CFR Chapter 1, Subchapter N), shall comply with the appropriate pretreatment standards:
  - a. By the date specified therein;
  - b. Within three (3) years of the effective date specified therein, but in no case later than July 1, 1984; or,
  - c. If a new indirect discharger, upon commencement of discharge.

**F. Central Coast Standard Provision – Enforcement**

1. Any person failing to file a report of waste discharge or other report as required by this permit shall be subject to a civil penalty not to exceed \$5,000 per day.
2. Upon reduction, loss, or failure of the treatment facility, the "Discharger" shall, to the extent necessary to maintain compliance with this permit, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided.



**G. Central Coast Standard Provisions – Definitions (Not otherwise included in Attachment A to this Order)**

1. A "composite sample" is a combination of no fewer than eight (8) individual samples obtained at equal time intervals (usually hourly) over the specified sampling (composite) period. The volume of each individual sample is proportional to the flow rate at the time of sampling. The period shall be specified in the Monitoring and Reporting Program ordered by the Executive Officer.
2. "Daily Maximum" limit means the maximum acceptable concentration or mass emission rate of a pollutant measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling. It is normally compared with results based on "composite samples" except for ammonia, total chlorine, phenolic compounds, and toxicity concentration. For all exceptions, comparisons will be made with results from a "grab sample".
3. "Discharger", as used herein, means, as appropriate: (1) the Discharger, (2) the local sewerage entity (when the collection system is not owned and operated by the Discharger), or (3) "indirect discharger" (where "Discharger" appears in the same paragraph as "indirect discharger", it refers to the discharger.)
4. "Duly Authorized Representative" is one where:
  - a. the authorization is made in writing by a person described in the signatory paragraph of Federal Standard Provision V.B.;
  - b. the authorization specifies either an individual or the occupant of a position having either responsibility for the overall operation of the regulated facility, such as the plant manager, or overall responsibility for environmental matters of the company; and,
  - c. the written authorization was submitted to the Central Coast Water Board.
5. A "grab sample" is defined as any individual sample collected in less than 15 minutes. "Grab samples" shall be collected during peak loading conditions, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with the daily maximum limits identified in Central Coast Standard Provision – Provision G.2. and instantaneous maximum limits.
6. "Hazardous substance" means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.
7. "Incompatible wastes" are:
  - a. Wastes which create a fire or explosion hazard in the treatment works;
  - b. Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0 unless the works is specifically designed to accommodate such wastes;
  - c. Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation of treatment works;

- d. Any waste, including oxygen demanding pollutants (BOD, etc), released in such volume or strength as to cause inhibition or disruption in the treatment works and subsequent treatment process upset and loss of treatment efficiency; and,
  - e. Heat in amounts that inhibit or disrupt biological activity in the treatment works or that raise influent temperatures above 40°C (104°F) unless the treatment works is designed to accommodate such heat.
8. "Indirect Discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.
9. "Log Mean" is the geometric mean. Used for determining compliance of fecal or total coliform populations, it is calculated with the following equation:

$$\text{Log Mean} = (C_1 \times C_2 \times \dots \times C_n)^{1/n},$$

in which "n" is the number of days samples were analyzed during the period and any "C" is the concentration of bacteria (MPN/100 ml) found on each day of sampling. "n" should be five or more.

10. "Mass emission rate" is a daily rate defined by the following equations:

$$\text{mass emission rate (lbs/day)} = 8.34 \times Q \times C; \text{ and,}$$

$$\text{mass emission rate (kg/day)} = 3.79 \times Q \times C,$$

where "C" (in mg/L) is the measured daily constituent concentration or the average of measured daily constituent concentrations and "Q" (in MGD) is the measured daily flowrate or the average of measured daily flow rates over the period of interest.

11. The "Maximum Allowable Mass Emission Rate," whether for a month, week, day, or six-month period, is a daily rate determined with the formulas in paragraph G.10, above, using the effluent concentration limit specified in the permit for the period and the average of measured daily flows (up to the allowable flow) over the period.
12. "Maximum Allowable Six-Month Median Mass Emission Rate" is a daily rate determined with the formulas in Central Coast Standard Provision – Provision G.10, above, using the "six-month Median" effluent limit specified in the permit, and the average of measured daily flows (up to the allowable flow) over a 180-day period.
13. "Median" is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of two middle values.
14. "Monthly Average" (or "Weekly Average", as the case may be) is the arithmetic mean of daily concentrations or of daily mass emission rates over the specified 30-day (or 7-day) period.

$$\text{Average} = (X_1 + X_2 + \dots + X_n) / n$$

in which "n" is the number of days samples were analyzed during the period and "X" is either the constituent concentration (mg/l) or mass emission rate (kg/day or lbs/day) for each sampled day. "n" should be four or greater.

15. "Municipality" means a city, town, borough, county, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial waste, or other waste.
16. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.
17. "Pollutant-free wastewater" means inflow and infiltration, stormwaters, and cooling waters and condensates which are essentially free of pollutants.
18. "Primary Industry Category" means any industry category listed in 40 CFR Part 122, Appendix A.
19. "Removal Efficiency" is the ratio of pollutants removed by the treatment unit to pollutants entering the treatment unit. Removal efficiencies of a treatment plant shall be determined using "Monthly averages" of pollutant concentrations (C, in mg/l) of influent and effluent samples collected about the same time and the following equation (or its equivalent):  
  
$$C_{\text{Effluent}} \text{ Removal Efficiency (\%)} = 100 \times (1 - C_{\text{Effluent}} / C_{\text{Influent}})$$
20. "Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss to natural resources which can reasonably be expected to occur in the absence of a "bypass". It does not mean economic loss caused by delays in production.
21. "Sludge" means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.
22. To "significantly contribute" to a permit violation means an "indirect discharger" must:
  - a. Discharge a daily pollutant loading in excess of that allowed by contract with the "Discharger" or by Federal, State, or Local law;
  - b. Discharge wastewater which substantially differs in nature or constituents from its average discharge;
  - c. Discharge pollutants, either alone or in conjunction with discharges from other sources, which results in a permit violation or prevents sewage sludge use or disposal; or
  - d. Discharge pollutants, either alone or in conjunction with pollutants from other sources that increase the magnitude or duration of permit violations.
23. "Toxic Pollutant" means any pollutant listed as toxic under Section 307 (a) (1) of the Clean Water Act or under 40 CFR Part 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Federal Standard Provisions V.E.).
24. "Zone of Initial Dilution" means the region surrounding or adjacent to the end of an outfall pipe or diffuser ports whose boundaries are defined through calculation of a plume model verified by the State Water Board

## ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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## ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 C.F.R.) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Coast Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

### I. GENERAL MONITORING PROVISIONS

- A. **Laboratory Certification.** Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board), in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.
- B. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and approval of the Regional Board.
- C. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than  $\pm 10$  percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration, and operation of acceptable flow measurement devices can be obtained from the following references.
  - 1. *A Guide to Methods and Standards for the Measurement of Water Flow*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
  - 2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
  - 3. *Flow Measurement in Open Channels and Closed Conduits*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)
  - 4. *NPDES Compliance Sampling Manual*, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)
- D. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

- E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.
- F. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 CFR 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*. All analyses shall be conducted using the lowest practical quantitation limit achievable using the specified methodology. Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule shall also adhere to guidance and requirements contained in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (2005). Analyses for toxics listed in Table 1 of the California Ocean Plan (2015) shall adhere to guidance and requirements contained in that document.
- G. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Resources Control Board at the following address:

State Water Board Quality Assurance Program Officer  
Office of Information Management and Analysis  
State Water Resources Control Board  
1001 I Street, Sacramento, CA 95814

## II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

**Table E-1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	INF-001	Influent wastewater prior to treatment and following all significant inputs to the collection system or to the headworks of untreated wastewater, upstream of any in-plant return flows, where representative samples of wastewater influent can be obtained.
001	EFF-001	Location where representative sample of effluent discharged through the ocean outfall can be collected, after treatment and before contact with receiving water. Latitude: 36 °, 56 ', 08 " N, Longitude: 122 °, 04 ', 08 " W
---	RSW – A	Receiving water at the Point of Santa Cruz at the 30-ft depth contour.
---	RSW – C	Receiving water at the surf at old outfall line at the 30-ft depth contour.
---	RSW – E	Receiving water 610 meters west of the outfall line crossing the beach at the 30-ft depth contour.
---	RSW – F	Receiving water at the Natural Bridges State Beach at the 30-ft depth contour.
---	RSW – G	Receiving water at Terrace Point at the 30-ft depth contour.
---	RSW – H	Receiving water 1,180 meters upcoast of Terrace Point at the 30-ft depth contour.
---	RSW – I	Receiving water, 2,080 meters upcoast of Terrace Point at the 30-ft depth contour.



Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	LEAK STATION	Leak along the outfall line approximately on the 65 foot line.
---	BIO-001	The last point in the biosolids handling process where representative samples of residual solids from the treatment process can be obtained.

The North latitude and West longitude information in Table E-1 are approximate for administrative purposes.

### III. INFLUENT MONITORING REQUIREMENTS

#### A. Monitoring Location INF-001

- The Discharger shall monitor influent to the facility at INF-001 as follows:

**Table E-2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow <sup>[1]</sup>	MGD	Metered	Daily
pH	pH Units	Metered	Daily <sup>[2]</sup>
Total Organic Carbon (TOC)	mg/L	24-hr Composite	Weekly
Total Suspended Solids (TSS)	mg/L	24-hr Composite	Weekly
Ocean Plan Table 1 Constituents	Units per Table 1	24-hr Composite	Annually <sup>[3]</sup>
Pretreatment Requirements <sup>[4], [5]</sup>	---	---	---

<sup>[1]</sup> The Discharger shall report the daily average flow, daily maximum flow, mean daily flow for each month, and max daily flow for each month.

<sup>[2]</sup> The Discharger shall report the daily maximum value and daily minimum pH value for each day.

<sup>[3]</sup> Annual influent samples shall be collected according to the following schedule: October 2018, September 2019, August 2020, July 2021, and June 2022

<sup>[4]</sup> Those pollutants identified in Table 1 of the Ocean Plan (2015). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that their contract laboratory do so) so that the Minimum Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table 1; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

<sup>[5]</sup> See Sections VI.C.5.b of this Order.

### IV. EFFLUENT MONITORING REQUIREMENTS

#### A. Monitoring Location EFF-001

- The Discharger shall monitor effluent at Monitoring Location EFF-001 in accordance with the following schedule. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

**Table E-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Metered	Continuous <sup>[1]</sup>
pH	pH Units	Metered	Continuous
Total & Fecal Coliform [3],[4]	MPN/100mL	Grab	Weekly <sup>[2]</sup>
Enterococci Organisms [3],[5]	MPN/100mL	Grab	Weekly <sup>[2]</sup>
Temperature	° F	Grab	Twice Weekly
TOC	mg/L	24-hr Composite	Three Times Weekly
TSS	mg/L	24-hr Composite	Every sixth day
Settleable Solids	mL/L/hr	Grab	Twice Weekly
Chlorine Residual <sup>[6]</sup>	mg/L	Grab	Continuous
Turbidity	NTUs	Grab	Monthly
Oil and Grease	mg/L	Grab	Monthly
Ammonia	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Monthly
Silica	mg/L	Grab	Monthly
Urea	mg/L	Grab	Monthly
Acute Toxicity <sup>[7]</sup>	TUa	24-hr Composite	1/Quarter (Jan/Apr/Jul/Oct)
Chronic Toxicity <sup>[7]</sup>	TUc	24-hr Composite	1/Quarter (Jan/Apr/Jul/Oct)
Total Sulfides	mg/L	Grab	1/Quarter (Jan/Apr/Jul/Oct)
Ocean Plan Table 1 Metals <sup>[8]</sup>	µg/L	24-hr composite	Semiannually <sup>[9]</sup>
Ocean Plan Table 1 Pollutants <sup>[10]</sup>	µg/L	24-hr composite	Semiannually <sup>[9]</sup>

- [1] The Discharger shall report the daily average and daily maximum flow for each day. In addition, the Discharger shall report the mean daily flow and maximum daily flow for each month.
- [2] Total coliform, fecal coliform, and enterococcus effluent monitoring apply if the Executive Officer concludes from a bacterial assessment (V.A.1 of the Order) that the discharge consistently exceeds the Receiving Water Limitation of the Order.
- [3] For all bacterial analyses, sample dilutions should be performed so the range of bacterial density values extends from 200 to 160,000 /100 mL. The detection methods used for each analysis shall be reported with the results of the analysis.
- [4] Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR PART 136 (revised edition of May 14, 1999), unless alternate methods have been approved in advance by USEPA pursuant to 40 CFR Part 136.
- [5] Detection methods used for enterococcus shall be those presented in USEPA publication EPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure, or any improved method determined by the Regional Board to be appropriate.
- [6] The City of Santa Cruz wastewater effluent shall be monitored continually for total chlorine residual when chlorine disinfection is occurring. The City shall review continuous monitoring strip charts and submit a summary (chlorine residual daily range, and daily average) to the Regional Board with monthly monitoring reports. Grab samples for compliance with effluent limits may be collected at the last accessible measurement location before discharge to the ocean.

- [7] Whole effluent acute and chronic toxicity monitoring shall be conducted according to the requirements established in section V of this Monitoring and Reporting Plan. Effective June 2018 the Discharger shall replace toxicity 24-hour composite sampling with continuous flow sampling.
- [8] Those twelve metals (Sb, As, Cd, Cr<sup>+3</sup>, Cr<sup>+6</sup>, Cu, Pb, Hg, Ni, Se, Ag, and Zn) with applicable water quality objectives established by Table 1 of the Ocean Plan. Analysis shall be for total recoverable metals.
- [9] Semi-annual sampling shall be conducted according to the following schedule: April and September 2018, March and August 2019, February and July 2020, January and June 2021, and January and June 2022.
- [10] Those pollutants identified in Table 1 of the Ocean Plan (2015). Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the Standard Monitoring Procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards so that the Minimum Levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs, which are below applicable water quality criteria of Table 1; and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML. Monitoring for the Table 1 pollutants shall occur one time per year. Analysis for all Table 1 pollutants can coincide with monitoring for the Table 1 metals so that analysis for metals is not duplicated.

**Table E-4. Effluent Monitoring of Remaining Priority Pollutants at EFF-001<sup>1</sup>**

<b>Volatile Organic Compounds</b>	<b>Units</b>	<b>Sample Type</b>	<b>Minimum Sampling Frequency</b>
Bromoform	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Chloroethane	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
2-Chloroethyl Vinyl Ether	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
1,1-Dichloroethane	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Trans-1,2-Dichloro-Ethylene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
1,2-Dichloropropane	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
1,3-Dichloro-Propylene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Methyl Bromide	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Methyl Chloride	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Methylene Chloride	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
<b><i>Acid Extractable Compounds</i></b>	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
P-Chloro-M-Cresol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
2-Chlorophenol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
2,4-Dichlorophenol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
2,4-Dimethylphenol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
4,6-Dinitro-O-Cresol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
2-Nitrophenol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
4-Nitrophenol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Pentachlorophenol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Phenol	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
<b><i>Base-Neutral Compounds</i></b>	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Acenaphthene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually

Volatile Organic Compounds	Units	Sample Type	Minimum Sampling Frequency
Acenaphthylene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Anthracene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Benzo (A) Anthracene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Benzo (A) Pyrene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
3,4-Benzo-Fluoranthene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Benzo (ghi) Perylene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Benzo (K) Fluoranthene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
4-Bromophenyl Phenyl Ether	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Butyl Benzyl Phthalate	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
2-Chloronaphthalene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
4-Chlorophenyl Phenyl Ether	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Chrysene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Di-N-Octyl Phthalate	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Dibenzo (A,H) Anthracene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
1,4-Dichlorobenzene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
2,6-Dinitrotoluene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Fluorene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Indeno (1,2,3-CD) Pyrene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Naphthalene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Phenanthrene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
Pyrene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually
1,2,4,-Trichlorobenzene	µg/L	24-hr Composite <sup>[2]</sup>	Semiannually

[1] The Discharger shall concurrently monitor the pollutants and whole effluent acute and chronic toxicity once in the dry season and once in the wet season each year.

[2] The Discharger shall utilize the integrative high volume water sampling (IHVWS) such as SPMD or those deployed by CCLEAN to meet the monitoring obligations, with the caveat that 24-hour composites may be used in the few instances when processing the integrative samples render certain pollutants inaccessible for analyses by approved analytical methods promulgated for compliance monitoring. All PCB congeners shall be reported in addition to Aroclors.

## V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

### A. Acute Toxicity

Compliance with the acute toxicity limitation shall be determined using a USEPA approved protocol as provided in 40 CFR 136 (*Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, U.S. EPA Office of Water, EPA-821-R-02-012 (2002) or the latest edition).

$$\text{Acute Toxicity (TUa)} = 100/96\text{-hr LC}_{50}.$$

LC<sub>50</sub> (percent waste giving 50% survival of test organisms) shall be determined by 96-hour static or continuous flow bioassay techniques using standard marine test species as specified in EPA-821-R-02-012 and as noted in the following table.

**Table E-5. Approved Tests – Acute Toxicity (TU<sub>a</sub>)**

Species	Scientific Name	Effect	Test Duration
Shrimp	<i>Holmesimysis costata</i>	Survival	48 or 96 hours
Shrimp	<i>Mysidopsis bahia</i>	Survival	48 or 96 hours
Silversides	<i>Menidia beryllina</i>	Survival	48 or 96 hours
Sheepshead minnow	<i>Cyprinodon variegatus</i>	Survival	48 or 96 hours
Fathead minnow	<i>Pimephales promelas</i>	Survival	48 or 96 hours

If the effluent is to be discharged to a marine or estuarine system (e.g., salinity values in excess of 1,000 mg/L) and originates from a freshwater supply, salinity of the effluent must be increased with dry ocean salts (e.g., FORTY FATHOMS®) to match salinity of the receiving water. This modified effluent shall then be tested using marine species.

Reference toxicant test results shall be submitted with the effluent sample test results. Both tests must satisfy the test acceptability criteria specified in EPA-821-R-02-012. If the test acceptability criteria are not achieved or if toxicity is detected, the sample shall be retaken and retested within five days of the failed sampling event. The retest results shall be reported in accordance with EPA-821-R-02-012 (chapter on report preparation) and the results shall be attached to the next monitoring report.

When it is not possible to measure the 96-hour LC50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TU_a = [\log(100-S)]/1.7$$

Where S = percentage survival in 100 percent waste.  
If S > 99, TU<sub>a</sub> shall be reported as zero.

When toxicity monitoring finds acute toxicity in the effluent above the effluent limitation established by this Order, the Discharger shall immediately resample the effluent, if the discharge is continuing, and retest for acute toxicity. Results of the initial failed test and any toxicity monitoring results subsequent to the failed test shall be reported as soon as reasonable to the Central Coast Water Board Executive Officer (EO). The EO will determine whether it is appropriate to initiate enforcement action, require the Discharger to implement toxicity reduction evaluation (TRE) requirements (section VI.C.2.a of this Order), or implement other measures.

#### **B. Whole Effluent Chronic Toxicity – Monitoring Location EFF-001**

The presence of chronic toxicity shall be estimated as specified in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, EPA-821/600/R-95/136; *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA-600-4-01-003; *Procedures Manual for Conducting Toxicity Tests developed by the Marine Bioassay Project*, SWRCB 1996, 96-1WQ; and/or *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA/600/4-87-028 or subsequent editions.

Chronic toxicity measures a sublethal effect (e.g., reduced growth or reproduction) to experimental test organisms exposed to an effluent compared to that of the control organisms.

$$\text{Chronic Toxicity (TU}_c\text{)} = 100/\text{NOEL}$$

The no observed effect level (NOEL) is the maximum tested concentration in a medium which does not cause known adverse effects upon chronic exposure in the species in question (i.e.,

the highest effluent concentration to which organisms are exposed in a chronic test that causes no observable adverse effects on the test organism; e.g., the highest concentration of a toxicant to which the values for the observed responses are not statistically significantly different from the controls). Examples of chronic toxicity include, but are not limited to, measurements of toxicant effects on reproduction, growth, and sublethal effects that can include behavioral, physiological, and biochemical effects.

In accordance with the 2015 Ocean Plan, Appendix III, Standard Monitoring Procedures, the Discharger shall use the critical life stage toxicity tests specified in the table below to measure TUc. Other species or protocols will be added to the list after the State Water Board review and approval.

A minimum of three test species with approved test protocols shall be used to measure compliance with the toxicity limitation. If possible, the test species shall include a fish, an invertebrate, and an aquatic plant. After a screening period of no fewer than three sampling events, monitoring can be reduced to the most sensitive species. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results.

**Table E-6. Approved Tests – Chronic Toxicity (TUc)**

Species	Effect	Tier <sup>[1]</sup>	Reference <sup>[2]</sup>
Giant Kelp, <i>Macrocystis pyrifera</i>	Percent germination; germ tube length	1	a, c
Red abalone, <i>Haliotis rufesens</i>	Abnormal shell development	1	a, c
Oyster, <i>Crassostrea gigas</i> ; Mussels, <i>Mytilus spp.</i>	Abnormal shell development; percent survival	1	a, c
Urchin, <i>Strongylocentrotus purpuratus</i> ; Sand dollar, <i>Dendraster excentricus</i>	Percent normal development; percent fertilization	1	a, c
Shrimp, <i>Holmesimysis costata</i>	Percent survival; growth	1	a, c
Shrimp, <i>Mysidopsis bahia</i>	Percent survival; fecundity	2	b, d
Topsmelt, <i>Atherinops affinis</i>	Larval growth rate; percent survival	1	a, c
Silversides, <i>Menidia beryllina</i>	Larval growth rate; percent survival	2	b, d

[1] First tier methods are preferred for compliance monitoring. If first tier organisms are not available, the Discharger can use a second tier test method following approval by the Regional Water Board.

[2] Protocol References:

- Chapman, G.A., D.L. Denton, and J.M. Lazochak. 1995. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to west coast marine and estuarine organisms. U.S. EPA Report No. EPA/600/R-95/136.
- Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Pelier, and M.A. Heber. 1994. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to marine and estuarine organisms. U.S. EPA Report No. EPA-600-4-91-003.
- SWRCB 1996. Procedures Manual for Conducting Toxicity Tests Developed by the Marin Bioassay Project. 96-1WQ.
- Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Neiheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1988. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

Dilution and control waters shall be obtained from an area of the receiving waters, typically upstream, which is unaffected by the discharge. Standard dilution water can be used, if the receiving water itself exhibits toxicity or if approved by the Central Coast Water Board. If the



dilution water used in testing is different from the water in which the test organisms were cultured, a second control sample using culture water shall be tested.

If the effluent to be discharged to a marine or estuarine system (e.g., salinity values in excess of 1,000 mg/L) originates from a freshwater supply, salinity of the effluent must be increased with dry ocean salts (e.g., FORTY FATHOMS®) to match salinity of the receiving water. This modified effluent shall then be tested using marine species.

**B. Conducting Toxicity Identification Evaluations (TIE) and Toxicity Reduction Evaluations (TRE)**

1. A TRE shall be implemented by the Discharger as specified by the Executive Officer. A TIE may be required as part of the TRE.
2. The TIE shall be conducted to identify and evaluate toxicity in accordance with procedures recommended by the United States Environmental Protection Agency (USEPA) which include the following:
  - a. Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, (USEPA, 1992a);
  - b. Methods for Aquatic Toxicity Identification Evaluations: Phase 1 Toxicity Characterization Procedures, Second Edition (USEPA, 1991a);
  - c. Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Sampling Exhibiting Acute and Chronic Toxicity (USEPA, 1993a); and
  - d. Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (USEPA, 1993b).
3. As part of the TIE investigation, the Discharger shall be required to implement its TRE work plan. The Discharger shall take all reasonable steps to control toxicity once the source of the toxicity is identified. A failure to conduct required toxicity tests or a TRE within a designated period may result in the establishment of numerical effluent limitations for chronic toxicity in a permit or appropriate enforcement action. Recommended guidance in conducting a TRE includes the following:
  - a. Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, August 1999, EPA/833B-99/002; and
  - b. Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program dated May 27, 2001, USEPA Office of Wastewater Management, Office of Regulatory Enforcement.

**C. Toxicity Reporting**

1. The Discharger shall include a full report of toxicity test results with the regular monthly monitoring report and include the following information.
  - a. Toxicity test results,
  - b. Dates of sample collection and initiation of each toxicity test, and

- c. And/or toxicity discharge limitations (or value).
2. Toxicity test results shall be reported according to the appropriate guidance – *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, USEPA Office of Water, EPA-821-R-01-012 (2002) or the latest edition, or *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, EPA-821-R-02-012 (2002) or subsequent editions.
3. If the initial investigation TRE workplan is used to determine that additional (accelerated) toxicity testing is unnecessary, these results shall be submitted with the monitoring report for the month in which investigation conducted under the TRE workplan occurred.
4. Within 14 days of receipt of test results exceeding a chronic toxicity discharge limitation, the Discharger shall provide written notification to the Executive Officer of:
  - a. Findings of TRE or other investigation to identify the cause(s) or toxicity,
  - b. Actions the Discharger has taken/will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity.

When corrective actions, including a TRE have not been complete, a schedule under which corrective actions will be implemented, or the reason for not taking corrective action, if no action has been taken.

## **VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE**

## **VII. RECYCLING MONITORING REQUIREMENTS**

The Discharger shall comply with applicable State and local monitoring requirements regarding the production and use of reclaimed wastewater, including requirements established by the SWRCB Division of Drinking Water (DDW) at title 22, sections 60301-60355 of the California Code of Regulations, Water Recycling Criteria. The use of reclaimed water may alternatively be regulated by SWRCB General Water Reclamation Requirements for Recycled Water Use.

## **VIII. RECEIVING WATER MONITORING REQUIREMENTS**

### **A. Central Coast Long-Term Environmental Assessment Network (CCLEAN)**

1. The Discharger shall participate in the implementation of the CCLEAN Regional Monitoring Program to fulfill receiving water compliance monitoring requirements and support the following CCLEAN Program objectives.
  - a. Obtain high-quality data describing the status and long-term trends in the quality of nearshore waters, sediments, and associated beneficial uses.
  - b. Determine whether nearshore waters and sediments are in compliance with the Ocean Plan.
  - c. Determine sources of contaminants to nearshore waters.
  - d. Provide legally defensible data on the effects of wastewater discharges in nearshore waters.
  - e. Develop a long-term database on trends in the quality of nearshore waters, sediments, and associated beneficial uses.

- f. Ensure that the nearshore component database is compatible with other regional monitoring efforts and regulatory requirements.
- g. Ensure that nearshore component data are presented in ways that are understandable and relevant to the needs of stakeholders.

General components of the first phase of the CCLEAN Program are outlined in the following table. The CCLEAN Quality Assurance Project Plan (QAPP) for each year will be submitted for staff approval prior to initiation of CCLEAN sampling. A detailed technical study design description, including specific location of sampling sites, a description of the specific contents of the CCLEAN Annual Report, shall be provided as a component of the CCLEAN QAPP. Any year-to-year modifications to the program (including implementation of subsequent program phases) shall be identified in this document.

**Table E-7. CCLEAN Monitoring Requirements**

Sampling Sites	Parameters Sampled at Each Site	Frequency of Sampling	Applicable Water-Quality Stressors	Program Objectives
<b>Water Sampling</b>				
Four outfall sites (Santa Cruz, Watsonville, Monterey, Carmel) in effluent	30-day flow proportioned samples using automated pumping equipment, high volume water sampling techniques for: 1) persistent organic pollutants including polybrominated diphenyl ethers (PBDE), and 2) single grabs for polyfluorinated compounds (PFCs).	Twice per year (wet season and dry season)	Persistent Organic Pollutants, PFCs	d
Four outfall sites (Santa Cruz, Watsonville, Monterey, Carmel) in effluent	Grab samples for ammonia, silica, orthophosphate, urea, nitrate, turbidity, suspended sediment, temperature, conductivity, and pH	Monthly	Nutrients Suspended sediments	d
Four outfall sites (Santa Cruz, Watsonville, Monterey, Carmel) in Effluent	Integrative biological assessment of endocrine disrupting compounds	Twice per year (wet season and dry season)	Endocrine disrupting compounds	d
30-ft contour sites for each major discharge and sites sampled for AB 411	Grabs for total and fecal coliform, enterococcus <sup>[1]</sup>	Weekly	Pathogens	a, b, c, d
Two ambient sites on Monterey Bay	30-day time-integrated samples using automated pumping equipment, high-volume water sampling techniques for persistent organic pollutants including PBDEs; 2) single grabs for PFCs, 3) duplicate grabs of ammonia, silica, orthophosphate, urea, nitrate, turbidity, suspended sediment,	Twice per year (wet season and dry season)	Persistent Organic Pollutants Nutrients Suspended Sediments Pathogen indicators PFCs	a, b, e

	fecal coliform, total coliform, enterococcus, temperature, conductivity, and ph both at deployment and pickup			
<b>Sediment Sampling</b>				
Four depositional sites and four background sites along 80-m contour	Single samples for benthic infauna, persistent organic pollutants including PBDE, total organic carbon and grain size	Annually	Persistent organic pollutants (and effects of)	a, b
<b>Mussel Sampling</b>				
5 rocky intertidal sites	One composite of 30-40 mussels for persistent organic pollutants including PBDE, PFCs, total and fecal coliform, and enterococcus	Annually(wet season)	Persistent organic pollutants Pathogens	a b, c

## B. Bacteria Monitoring – Monitoring Locations RSW-A through I

Bacteria monitoring shall be conducted to assess bacteriological conditions in areas used for body contact recreation (e.g., swimming) and to assess conditions of aesthetics for general recreation use (e.g., picnicking, boating). Bacteria monitoring shall be conducted along the 30-foot contour at Monitoring Locations RSW-A, RSW-C, RSW-E, RSW-F, RSW-G, RSW-H, and RSW-I. Latitude and longitude shall be recorded and reported for all monitoring locations for each monitoring event.

Bacteria monitoring shall include observations of wind (direction and speed), weather (e.g., cloudy, sunny, rainy), sea state, longshore currents (e.g., direction), and tidal conditions (e.g., slack, high, or low tide). Observations of water discoloration, floating oil and grease, turbidity, odor, material of sewage origin in the water or on the beach, and temperature shall be recorded and reported. Bacteria monitoring shall be conducted as indicated by the following table.

**Table E-8. Bacteria Monitoring Schedule**

Parameter	Units	Sampling Station	Minimum Sampling Frequency
Total and Fecal Coliform Bacteria <sup>[1], [2]</sup>	MPN/100ml	RSW-A, C, E, F, G, H, I and Leak Station	Monthly <sup>[4]</sup>
Enterococcus Bacteria <sup>[3]</sup>	MPN/100ml	RSW-A, C, E, F, G, H, I and Leak Station	Monthly <sup>[4]</sup>
Surf Conditions	Narrative	RSW-A, C, E, F, G, H, I and Leak Station	Monthly <sup>[4]</sup>
Ocean Current Direction	Narrative	RSW-A, C, E, F, G, H, I and Leak Station	Monthly <sup>[4]</sup>

<sup>[1]</sup> For all bacterial analyses, sample dilutions shall be performed so the range of values extends from 2 to 16,000 MPN/100ml. The detection methods used for each analysis shall be reported with the results of the analysis.

<sup>[2]</sup> Detection methods used for total and fecal coliform shall be those presented in the most recent edition of *Standard Methods for the Examination of Water and Wastewater* or any improved method determined by the Regional Board (and approved by EPA) to be appropriate.

- [3] Detection methods used for enterococcus shall be those presented in EPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, or any improved method determined by the Regional Board (and approved by EPA) to be appropriate.
- [4] Sampling interval shall be monthly for 30-foot depth contour stations, with more frequent sampling, at 5 times in a 30-day period (as described in CCLEAN, 9/25/2000, Section 2.4.2), triggered when samples exceed 1000 / 100 mL for total coliform, 400 / 100 mL for fecal coliform, or 104 / 100 mL for Enterococcus at any 30-foot depth contour station. Within 48 hours of the triggering event, the more frequent sampling shall be initiated at all 30-foot depth contour stations and shore stations (Nearshore sample locations on page 12). Sampling shall continue at this increased frequency until the geometric mean of the most recent 5 samples from each station fall below 1000 / 100 mL for total coliform, 200 / 100 mL for fecal coliform, or 104 / 100 mL for Enterococcus, as appropriate for the bacterial indicator that triggered the increased sampling. Stations C, Leak Station and shoreline stations shall be monitored weekly.

## IX. OTHER MONITORING REQUIREMENTS

### A. Biosolids Monitoring, Notification and Reporting

#### 1. Biosolids Monitoring

- a. Biosolids shall be tested for the metals required in 40 CFR 503.16 (for land application) or Section 503.26 (for surface disposal), using the methods in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)*, as required in 503.8(b)(4), at the following minimum frequencies:

Volume (dry metric tons) <sup>[1]</sup>	Sampling and Analysis Frequency <sup>[2]</sup>
0-290	Once per year
290-1,500	Once per quarter
1,200-15,000	Once per 60 days
>15,000	Once per month

[1] For accumulated, previously untested biosolids, the Permittee shall develop a representative sampling plan, including number and location of sampling points, and collect representative samples.

[2] Test results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis. Biosolids to be land applied shall be tested for organic-N, ammonium-N, and nitrate-N at the frequencies required above.

- a. Prior to land application, the Permittee shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 CFR 503.32. Prior to disposal in a surface disposal site, the Permittee shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day. If pathogen reduction is demonstrated using a "Process to Significantly/Further Reduce Pathogens", the Permittee shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliforms and/or pathogens, samples must be drawn at the frequency in 11(a) above. For fecal coliform, at least seven grab samples must be drawn during each monitoring event and a geometric mean calculated from these seven samples.
- b. For biosolids that are land applied or placed in a surface disposal site, the Permittee shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR 503.33(b).
- c. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with greater than five million gallons per day (MGD) influent flow shall sample biosolids for pollutants listed under Section 307(a) of the Clean Water Act (as required in the pretreatment section of the permit for POTW's with pretreatment programs). Class 1 facilities and Federal facilities greater than five MGD shall test dioxins/dibenzofurans using a

detection limit of less than one pg/g at the time of their next priority pollutant scan if they have not done so within the past five years, and once per five years thereafter.

- d. The biosolids shall be tested annually, or more frequently if necessary, to determine hazardousness in accordance 40 CFR 261.
- e. If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.
- f. Biosolids placed in a municipal landfill shall be tested by the Paint Filter Liquids Test (EPA Method 9095) at the frequency in 11 (a) above or more often if necessary to demonstrate that there are no free liquids.

## **2. Biosolids Notification**

The Permittee, either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following notification requirements:

- a. Notification of non-compliance: The Permittee shall notify USEPA Region 9, the Central Coast Regional Board, and the Regional Board located in the region where the biosolids are used or disposed, of any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Permittee shall notify USEPA Region 9 and the affected Regional Boards of the non-compliance in writing within five working days of becoming aware of the non-compliance. The Permittee shall require their biosolids management contractors to notify USEPA Region 9 and the affected Regional Boards of any non-compliance within the same timeframes. See Attachment F for Regional Board contact information.
- b. If biosolids are shipped to another State or to Indian Lands, the Permittee must send 60 days prior notice of the shipment to the permitting authorities in the receiving State or Indian Land (the USEPA Regional Office for that area and the State/Indian authorities).
- c. For land application: Prior to reuse of any biosolids from this facility to a new or previously unreported site, the Permittee shall notify USEPA and Regional Board. The notification shall include a description and topographic map of the proposed site(s), names and addresses of the applier, and site owner and a listing of any state or local permits which must be obtained. The plan shall include a description of the crops or vegetation to be grown, proposed loading rates and determination of agronomic rates. If any biosolids within a given monitoring period do not meet 40 CFR 503.13 metals concentration limits, the Permittee (or its contractor) must pre-notify USEPA, and determine the cumulative metals loading at that site to date, as required in Section 503.12.
- d. The Permittee shall notify the applier of all the applier's requirements under 40 CFR 503, including the requirement that the applier certify that the management practices, site restrictions, and any applicable vector attraction reduction requirements have been met. The Permittee shall require the applier to certify at the end of 38 months following application of Class B biosolids that the harvesting restrictions in effect for up to 38 months have been met.
- e. For surface disposal: Prior to disposal to a new or previously unreported site, the Permittee shall notify USEPA and the Regional Board. The notice shall include



description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator, site owner, and any state or local permits. The notice shall describe procedures for ensuring public access and grazing restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

### **3. Biosolids Reporting**

The Permittee shall submit an annual biosolids report to the USEPA Region 9 Biosolids Coordinator and Regional Board by February 19 of each year for the period covering the previous calendar year. The report shall include:

- a. The amount of biosolids generated during the reporting period, in dry metric tons, and the amount accumulated from previous years;
- b. Results of all pollutant and pathogen monitoring required in Item 12 above and the Monitoring and Reporting Program of this Order. Results must be reported on a 100% dry weight basis for comparison with 40 CFR 503 limits;
- c. Descriptions of pathogen reduction methods and vector attraction reduction methods, including supporting time and temperature data, and certifications, as required in 40 CFR 503.17 and 503.27;
- d. Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other use or disposal methods not covered above, and volumes delivered to each.
- e. For land application sites, the following information must be submitted by the Permittee, unless the Permittee requires its biosolids management contractors to report this information directly to the USEPA Region 9 Biosolids Coordinator:
  - i. Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner;
  - ii. Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, calculated plant available nitrogen;
  - iii. Crop planted, dates of planting and harvesting;
  - iv. For any biosolids exceeding 40 CFR 503.13 Table 3 metals concentrations: the locations of sites where applied and cumulative metals loading at that site to date;
  - v. Certifications of management practices in Section 503.14; and
  - vi. Certifications of site restrictions in Section 503(b)(5).
- f. For surface disposal sites:
  - i. Locations of sites, site operator, site owner, size of parcel on which disposed;
  - ii. Results of any required groundwater monitoring;
  - iii. Certifications of management practices in Section 503.24; and

- iv. For closed sites, date of site closure and certifications of management practices for the three years following site closure.
- g. For all biosolids used or disposed at the Permittee's facilities, the site and management practice information and certification required in Sections 503.17 and 503.27; and
- h. For all biosolids temporarily stored, the information required in Section 503.20 required to demonstrate temporary storage.

Reports shall be submitted to:

Regional Biosolids Coordinator  
USEPA (WTR-7)  
75 Hawthorne St.  
San Francisco, CA 94105-3901

Executive Officer  
Central Coast Regional Water Quality Control Board  
[centralcoast@waterboards.ca.gov](mailto:centralcoast@waterboards.ca.gov)

- i. All the requirements of 40 CFR 503 and 23 CCR 15 are enforceable by the USEPA and this Regional Board whether or not the requirements are stated in an NPDES permit or any other permit issued to the discharger.

#### **B. Pretreatment Monitoring and Reporting**

By March 1st of each year, the Discharger shall submit an annual report to the Regional Board, State Board, and USEPA describing the Discharger's pretreatment activities over the previous calendar year. In the event that the Discharger is not in compliance with any conditions or requirements of this permit affected by the pretreatment program, including any noncompliance with pretreatment audit or compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements. This report shall contain, but not be limited to, the following information:

1. A summary of analytical results from representative, flow-proportioned, 24-hour composite samples of the plant's influent and effluent for those pollutants USEPA has identified under Section 307(a) of the CWA which are known or suspected to be discharged by industrial users. The Discharger is not required to sample and analyze for asbestos until USEPA promulgates an applicable analytical technique under 40 CFR Part 136.
2. The biosolids analyzed shall be a composite sample of a minimum of twelve discrete sub-samples (grab samples) taken at equal time intervals over a typical dewatering operational period, and from the last representative point in the solids handling process before disposal (e.g., from the dewatered biosolids conveyor belt). The biosolids sampling period shall be coordinated with annual influent sampling to compensate for the facility's solids detention time and provide samples representative of the associated 24-hour influent composite sampling period. Wastewater and biosolids sampling and analysis shall be performed a minimum of annually and not less than the frequency specified in the required monitoring program for the treatment facility. The Discharger shall also provide any influent, effluent, or sludge monitoring data for non-priority pollutants which the Discharger believes may be causing or contributing to interference,

pass-through, or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto.

3. A discussion of upset, interference, or pass-through incidents, if any, at the POTW which the Discharger knows or suspects were caused by industrial users of the POTW system. The discussion shall include the reasons why the incidents occurred, corrective actions taken and, if known, the name and address of the industrial user(s) responsible. Discussions shall also include a review of applicable pollutant limitations to determine whether any additional limitations or changes to existing requirements may be necessary to prevent pass-through, interference, or noncompliance with sludge disposal requirements.
4. The cumulative number of industrial users that the Discharger has notified regarding Baseline Monitoring Reports, and the cumulative number of industrial user responses.
5. An updated list of the Discharger's industrial users, including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The Discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to Federal Categorical Standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent than the Federal Categorical Standards. The Discharger shall also list the non-categorical industrial users that are subject only to local discharge limitations. The Discharger shall characterize the compliance status of each industrial user by employing the following descriptions:
  - a. In compliance with Baseline Monitoring Report requirements (where applicable);
  - b. Consistently achieving compliance;
  - c. Inconsistently achieving compliance;
  - d. Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);
  - e. On a schedule to achieve compliance (include the date final compliance is required);
  - f. Not achieving compliance and not on a compliance schedule; or
  - g. The Discharger does not know the industrial user's compliance status.
6. A quarterly report describing the compliance status of any industrial user characterized by descriptions in Items 4(c) through (g) above shall be submitted to the Regional Board, State Board, and USEPA. The report shall identify the specific compliance status of each applicable industrial user. This quarterly reporting requirement shall commence upon issuance of this Order and Permit. Quarterly reports shall be submitted May 1, August 1, November 1, and February 1 (the fourth quarterly report may be incorporated in the annual report). Quarterly reports shall briefly describe POTW compliance with audit/pretreatment compliance inspection requirements. If none of the aforementioned conditions exist, at a minimum, a letter indicating that all industries are in compliance and no violations or changes to the pretreatment program have occurred during the quarter must be submitted.
7. A summary of inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding industrial users. The summary shall include:

- a. Names and addresses of the industrial users subject to surveillance by the Discharger and an explanation of whether they were inspected, sampled, or both, and the frequency of these activities at each user; and
  - b. Conclusions or results from the inspection or sampling of each industrial user.
8. A summary of compliance and enforcement activities during the past year. The summary shall include names and addresses of the industrial users affected by the following actions:
  - a. Warning letters or notices of violation regarding the industrial users' apparent noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the Federal Categorical Standards or local discharge limitations;
  - b. Administrative Orders regarding the industrial users' noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
  - c. Civil actions regarding the industrial users' noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned the Federal Categorical Standards or local discharge limitations;
  - d. Criminal actions regarding the industrial user's noncompliance with Federal Categorical Standards or local discharge limitations. For each industrial user, identify whether the violation concerned Federal Categorical Standards or local discharge limitations;
  - e. Assessment of monetary penalties. For each industrial user, identify the amount of the penalties;
  - f. Restriction of flow to the POTW; or
  - g. Disconnection from discharge to the POTW.
9. Description of any significant changes in operating the pretreatment program which differ from the information in the Discharger's Approved POTW Pretreatment Program, including but not limited to changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms; resource requirements; or staffing levels.
10. A summary of the annual pretreatment budget, including the costs of pretreatment program functions and equipment purchases.
11. A summary of public participation activities to involve and inform the public.
12. A description of any changes in biosolids disposal methods and a discussion of any concerns not described elsewhere in the report.

Reports shall be signed by a principal executive officer, ranking elected official, or other duly authorized employee if such employee is responsible for overall operation of the POTW. Signed copies of these reports shall be submitted to the USEPA and the State at the following addresses:

California Regional Water Quality Control Board  
Central Coast Region  
[centralcoast@waterboards.ca.gov](mailto:centralcoast@waterboards.ca.gov)

State Water Resources Control Board  
Regulation Unit  
P.O. Box 100  
Sacramento, CA 95812-0100

US EPA, Region 9  
Clean Water Act Compliance Office  
75 Hawthorne Street  
(WTR-7)  
San Francisco, CA 94105-3901

**C. Infiltration/Inflow and Spill Prevention Program Reporting Requirements**

The Discharger shall provide an annual report, by March 1st of each year describing the development of the Infiltration/Inflow Spill Prevention Program and permit compliance over the previous calendar year as specified in Section VI.C.2.d of this Order. The reports shall be of sufficient content as to enable the Regional Board to determine compliance with all requirements.

**D. Outfall Inspection**

At least once per year, the Discharger shall conduct a dye dilution study to visually inspect the entire outfall structure to determine whether there are leaks, potential leaks, or malfunctions. This inspection shall be collected along the outfall pipe/diffuser system from landfall to its ocean terminus. In addition, at least once per year, an outfall inspection will be conducted to check the structural integrity and possible external blockage of ports by sand and/or silt deposition. The two inspections may be conducted together or in different months in order to optimize the underwater conditions and visibility for conducting each inspection. Results of the outfall inspections shall be reported in the applicable annual report.

**X. REPORTING REQUIREMENTS**

**A. General Monitoring and Reporting Requirements**

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

**B. Self-Monitoring Reports (SMRs)**

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website at [http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs/](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

**Table E-9. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Effective permit date (see Table 3)	All	First day of the second month following the month of sampling (e.g., reports for sampling conducted in January are due no later than March 1)
Hourly	Effective permit date (see Table 3)	Hourly	Submit with monthly SMR
Daily	Effective permit date (see Table 3)	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 <sup>st</sup> day of calendar month through last day of calendar month	Submit with monthly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	Submit with next monthly SMR
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	Submit with next monthly SMR
Annually	January 1 following (or on) permit effective date	January 1 through December 31	Submit with Annual Report

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (reported ML, also known as the Reporting Level, or RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
  - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
  - e. Compliance Determination. Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Central Coast Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).
5. Multiple Sample Data. When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
  - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
6. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
  - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.



**C. Discharge Monitoring Reports (DMRs)**

1. DMRs are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at:  
<[http://www.waterboards.ca.gov/water\\_issues/programs/discharge\\_monitoring](http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring)>.

**D. Other Reports**

1. The Discharger shall report the results of any special monitoring, TREs, or other data or information that results from the Special Provisions, section VI. C, of the Order. The Discharger shall submit such reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.

## ATTACHMENT F – FACT SHEET

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## ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, the Central Coast Water Board incorporates this Fact Sheet as findings of the Central Coast Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

### I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

**Table F-1. Facility Information**

<b>WDID</b>	3 440102001
<b>Discharger</b>	City of Santa Cruz
<b>Name of Facility</b>	City of Santa Cruz Wastewater Treatment Facility
<b>Facility Address</b>	110 California Street
	Santa Cruz, CA 95060
	Santa Cruz County
<b>Facility Contact, Title and Phone</b>	Dan Seidel, Plant Superintendent, (831) 420-6044
<b>Authorized Person to Sign and Submit Reports</b>	Dan Seidel, Plant Superintendent, (831) 420-6044
<b>Mailing Address</b>	Same as Facility Address
<b>Billing Address</b>	Same as Facility Address
<b>Type of Facility</b>	POTW
<b>Major or Minor Facility</b>	Major
<b>Threat to Water Quality</b>	1
<b>Complexity</b>	A
<b>Pretreatment Program</b>	Yes
<b>Recycling Requirements</b>	When recycling is implemented
<b>Facility Permitted Flow</b>	17 MGD (average dry weather flow)
<b>Facility Design Flow</b>	17 MGD (average dry weather flow)
	81 MGD (peak wet weather flow)
<b>Watershed</b>	Big Basin
<b>Receiving Water</b>	Pacific Ocean (Monterey Bay)
<b>Receiving Water Type</b>	Ocean Water

- A. The City of Santa Cruz (hereinafter, Discharger) is the owner and operator of a wastewater treatment plant (Facility), which treats domestic, commercial, and industrial wastewaters collected from the City of Santa Cruz and areas of the Santa Cruz County Sanitation District. The City of Scotts Valley adds its treated wastewater to the Discharger's effluent for combined disposal. The plant also treats dry weather flows from Neary Lagoon, septage from unsewered areas, and grease trap pumping.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

- B.** The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order No. R3-2010-0043 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0048194 adopted on December 9, 2010, which expired on December 9, 2015. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.
- C.** The Discharger filed a report of waste discharge and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on June 29, 2015.
- D.** Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

## **II. FACILITY DESCRIPTION**

### **A. Description of Wastewater and Biosolids Treatment and Controls**

The City of Santa Cruz owns and operates a wastewater collection, treatment, and disposal system which provides sewerage service for the City of Santa Cruz and areas of the Santa Cruz County Sanitation District. The City of Scotts Valley adds its treated wastewater to the Discharger’s effluent for combined disposal. The collection system comprises 185 miles of gravity sanitary sewer lines, 4.2 miles of forced main, and 54 pump stations, all of which discharge untreated municipal waste water to the treatment plant. The plant also treats dry weather flows from Neary Lagoon, septage from unsewered areas, and grease trap pumping. The Wastewater Treatment Plant’s design, average dry weather treatment capacity is 17 MGD, with a design peak wet weather treatment capacity of 81 MGD.

Treatment at the Santa Cruz Wastewater Treatment Facility is currently accomplished by screening, aerated grit removal, primary sedimentation, biological tower trickling filters, solids contact stabilization, and secondary clarification, and disinfection with ultraviolet light. Biosolids are processed by anaerobic digestion, then belt filter press dewatering. Stabilized solids are transported to Merced County and applied to land. Methane gas produced by anaerobic digestion is used to generate power and heat the digesters at the treatment facility. Treated wastewater is discharged through a 12,250-foot outfall/diffuser system to Monterey Bay National Marine Sanctuary.

### **B. Discharge Points and Receiving Waters**

Discharge of secondary treated wastewater currently occurs approximately one mile from the shoreline in Monterey Bay National Marine Sanctuary at a depth of approximately 100 feet. The diffuser section of the outfall system is 424 feet in length with 54, 4-inch diffuser ports and provides a minimum initial dilution of 139 to1 (parts seawater:parts effluent), a figure that has been used by Central Coast Water Board staff to determine the need for water quality-based effluent limitations and to calculate those limitations if required.

### C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in the existing Order for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows:

**Table F-2. Historic Effluent Limitations and Monitoring Data**

Parameter	Units	Effluent Limitation			Monitoring Data (From December 2010 – To April 2016)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Total Organic Carbon (TOC)	mg/L	17	23	--	15.43	15.3	--
	lbs/day	2,412	3,263	--	NR	NR	--
TSS	mg/L	30	45	--	14.8	14.1	--
	lbs/day	4,255	6,384	--	NR	NR	--
Oil and Grease	mg/L	25	40	75	ND	ND	ND
	lbs/day	3,546	5,675	10,640	ND	ND	ND
Settleable Solids	mL/L/hr	1.0	1.5	3.0	0.33	0.3	1
Turbidity	NTUs	75	100	225	11.9	11.9	106
pH	pH units	6.0 – 9.0 at all times			6.2 – 7.5		

ND = Parameter was not detected in the effluent. Method detection limit was not reported

NR = Not reported.

**Table F-3. Historic Effluent Limitations and Monitoring Data, Protection of Marine Aquatic Life**

Parameter	Units	Effluent Limitation			Monitoring Data (From December 2010 – To April 2016)		
		6-Month Median	Maximum Daily	Instant Max	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Cadmium	NTUs	140	560	1,400	0.8	0.8	0.8
Chromium (VI) <sup>[1]</sup>	µg/L	280	1,100	2,800	0.96	0.96	0.96
Lead	µg/L	280	1,100	2,800	5.2	5.2	5.2
Mercury	µg/L	5.0	22	56	0.15	0.15	0.15
Selenium	µg/L	2,100	8,400	21,000	1.2	1.2	1.2
Silver	µg/L	98	392	980	0.69	0.69	0.69
Cyanide	µg/L	140	560	1,400	6.9	6.9	6.9
Total Residual Chlorine	µg/L	280	1,100	8,400	2,040	2,040	2,040
Acute Toxicity	TUa	--	4.5	--	--	16.19	--
Chronic Toxicity	TUc	--	140	--	--	8	--

Parameter	Units	Effluent Limitation			Monitoring Data (From December 2010 – To April 2016)		
		6-Month Median	Maximum Daily	Instant Max	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Phenolic Compounds (non-chlorinated)	µg/L	4,200	16,800	42,000	22	22	22
Chlorinated Phenolics	µg/L	140	560	1,400	17	17	17
Endosulfan	µg/L	1.3	2.5	3.8	<1	<1	<1
Endrin	µg/L	0.28	0.56	0.84	<1	<1	<1
HCH	µg/L	0.56	1.1	1.7	<1	<1	<1
Radioactivity	[2]				--	--	--

[1] Reported monitoring data are for total chromium.

[2] Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30253 of the California Code of Regulations. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

**Table F-4. Historic Effluent Limitations and Monitoring Data for Non-Carcinogens and Carcinogens**

Parameter	Units	Effluent Limitation	Monitoring Data (From December 2010 – To April 2016)
		Average Monthly	Highest Average Monthly Discharge
Non-carcinogens			
Acrolein	µg/L	3.1E+04	<5
Antimony	µg/L	1.7E+05	0.83
Bis(2-chloroethoxy) methane	µg/L	6.2E+02	<1
Bis(2-chloroisopropyl) ether	µg/L	1.7E+05	<1
Chlorobenzene	µg/L	8.6E+04	<0.5
Di-n-butyl phthalate	µg/L	4.9E+05	<1
Dichlorobenzenes	µg/L	7.1E+05	<1.3
Diethyl phthalate	µg/L	4.6E+06	<1
Dimethyl phthalate	µg/L	1.1E+08	<1
4,6-dinitro-2-methylphenol	µg/L	3.1E+04	<10
2,4-dinitrophenol	µg/L	5.6E+02	<0.05
Ethylbenzene	µg/L	5.7E+05	<0.5
Hexachlorocyclopentadiene	µg/L	8.1E+03	<5
Nitrobenzene	µg/L	6.9E+02	54
Thallium	µg/L	2.8E+02	0.5
Toluene	µg/L	1.2E+07	0.99
Tributyltin	µg/L	2.0E-01	<0.0006
1,1,1-trichloroethane	µg/L	7.6E+07	<0.5
Carcinogens			
Acrylonitrile	µg/L	1.4E+01	<2



Parameter	Units	Effluent Limitation	Monitoring Data (From December 2010 – To April 2016)
		Average Monthly	Highest Average Monthly Discharge
Aldrin	µg/L	3.1E-03	<0.000011
Benzene	µg/L	8.3E+02	<0.5
Benzidine	µg/L	9.7E-03	<6.3
Beryllium	µg/L	4.6	<0.5
Bis(2-chloroethyl) ether	µg/L	6.3	<0.5
Bis(2-ethylhexyl) phthalate	µg/L	4.9E+02	<2
Carbon tetrachloride	µg/L	1.3E+03	<0.5
Chlordane	µg/L	3.2E-03	0.00084
Chlorodibromomethane	µg/L	1.2E+03	<0.5
Chloroform	µg/L	1.8E+04	0.73
DDT	µg/L	2.4E-02	0.00018
1,4-dichlorobenzene	µg/L	2.4E-02	<0.5
3,3-dichlorobenzidine	µg/L	1.1	<2
1,2-dichloroethane	µg/L	3.9E+03	<0.5
1,1-dichloroethylene	µg/L	1.3E+02	<0.5
Dichlorobromomethane	µg/L	8.7E+02	<0.5
Dichloromethane	µg/L	6.3E+04	0.52
1,3-dichloropropene	µg/L	1.3E+03	NR
Dieldrin	µg/L	5.6E-03	0.0010
2,4-dinitrotoluene	µg/L	3.6E+02	<1
1,2-diphenylhydrazine	µg/L	2.2E+01	<1
Halomethanes	µg/L	1.8E+04	1.6
Heptachlor	µg/L	7.0E-03	<0.000029
Heptachlor epoxide	µg/L	2.8E-03	<0.021
Hexachlorobenzene	µg/L	2.9E-02	<1
Hexachlorobutadiene	µg/L	2.0E+03	<1
Hexachloroethane	µg/L	3.5E+02	<1
Isophorone	µg/L	1.0E+05	<1
N-nitrosodimethylamine	µg/L	1.0E+03	<0.51
N-nitrosodi-n-propylamine	µg/L	5.3E+01	<1
N-nitrosodiphenylamine	µg/L	3.5E+02	<1
PAHs	µg/L	1.2E+00	4.9
PCBs	µg/L	2.7E-03	<0.5
TCDD equivalents	µg/L	5.5E-07	1.4 x 10 <sup>-6</sup>
1,1,2,2-tetrachloroethane	µg/L	3.2E+02	<0.5
Tetrachloroethylene	µg/L	2.8E+02	<0.5
Toxaphene	µg/L	2.9E-06	<0.42
Trichloroethylene	µg/L	3.8E+03	<0.5
1,1,2-trichloroethane	µg/L	1.3E+03	<0.5
2,4,6-trichlorophenol	µg/L	4.1E+01	<1
Vinyl chloride	µg/L	5.0E+03	<0.5

#### D. Compliance Summary

**Table F-5. Summary of Effluent Violations**

Violation Date	Limitation	Unit	Effluent Limit	Reported Value
10/29/2013	Acute Toxicity Daily Maximum	TUa	4.5	16.2
1/31/2016	Carbonaceous Biochemical Oxygen Demand (CBOD) (5-day @ 20 Deg. C)	Percent Removal Monthly Average	85%	84.4%

#### E. Planned Changes

Water Reclamation requirements have been added to this permit in the event the Discharger chooses to produce recycled water and receives DDW approval.

### III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

#### A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

#### B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

#### C. State and Federal Laws, Regulations, Policies, and Plans

- 1. Water Quality Control Plan.** The Central Coast Water Board adopted the *Water Quality Control Plan for the Central Coastal Basin* (hereinafter Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean. Requirements in this Order implement the Basin Plan.

Beneficial uses applicable to the coastal waters between Soquel Point and the Salinas River are as follows:

**Table F-6. Basin Plan Beneficial Uses**

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean (Monterey Bay)	Water Contact (REC-1) Non-Contact Recreation (REC-2) Industrial Supply (IND) Navigation (NAV) Marine Habitat (MAR) Shellfish Harvesting (SHELL) Commercial and Sport Fishing (COMM) Rare, Threatened, or Endangered Species (RARE) Wildlife Habitat (WILD)

2. **Thermal Plan.** The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters.

*Elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses.*

The California Ocean Plan defines elevated temperature wastes as:

*Liquid, solid, or gaseous material discharged at a temperature higher than the natural temperature of receiving water.*

Requirements of this Order implement the California Thermal Plan

3. **California Ocean Plan.** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, 2012, and 2015. The State Water Board adopted the latest amendment on May 6, 2015, and it became effective on April 7, 2016. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the state to be protected as summarized below:

**Table F-7. Ocean Plan Beneficial Uses**

Discharge Point	Receiving Water	Beneficial Uses
001	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish spawning and shellfish harvesting

In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order implement the Ocean Plan.

4. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal

antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Central Coast Water Board Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution 68-16.

5. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.
6. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including protecting rare and endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

#### D. Impaired Water Bodies on the CWA section 303(d) List

CWA section 303 (d) requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303 (d) listed water bodies and pollutants, the Central Coast Water Board must develop and implement Total Maximum Daily Loads (TMDLs) that will specify waste load allocations for point sources and load allocations for non-point sources.

The Pacific Ocean, from Point Ano Nuevo to Soquel Point, is identified as impaired for dieldrin on the state's 2012 303(d) list of impaired water bodies, which was approved by U.S. EPA on June 30, 2015. A TMDL for dieldrin applicable to the receiving water body has not yet been developed. As described in Section IV.C of the Fact Sheet, the reasonable potential analysis for dieldrin was inconclusive and, consequently, this Order retains effluent limitations applicable to the parameter contained in the existing Order.

#### E. Other Plans, Policies and Regulations

1. **Discharges of Stormwater.** Stormwater runoff from rainfall which falls upon the wastewater treatment plant and which may be exposed to on-site pollutant sources is routed to the facility's headworks for treatment. This permit therefore regulates all stormwater discharges at this facility and complies with federal regulations regarding stormwater management.
2. **Sanitary Sewer System Requirements.** Water Quality Order 2006-0003-DWQ, adopted on May 2, 2006, is applicable to all "federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California." The purpose of Water Quality Order 2006-0003-DWQ is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows.

#### IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

##### A. Discharge Prohibitions

1. **Discharge Prohibition III.A** (Discharge to the Pacific Ocean at a location other than as described by the Order at 34° 23' 18" N. Latitude, 119° 13' 18" W. Longitude is prohibited). This Order authorizes a single, specific point of discharge to the Pacific Ocean. This prohibition reflects CWA section 402's prohibition against discharges of pollutants except in compliance with the act's permit requirements, effluent limitations, and other enumerated provisions. This prohibition is also retained from the previous permit.
2. **Discharge Prohibition III.B** (Discharges in a manner, except as described by the Order, are prohibited). Because limitations and conditions of the Order have been prepared based on specific information provided by the Discharger and specific wastes described by the Discharger, the limitations and conditions of the Order do not adequately address waste streams not contemplated during drafting of the Order. To prevent the discharge of such waste streams that may be inadequately regulated, the Order prohibits the discharge of any waste that was not described by to the Central Coast Water Board during the process of permit reissuance.
3. **Discharge Prohibition III.C** (The dry weather average monthly rate of discharge from the wastewater treatment facility shall not exceed 17.0 MGD.) This prohibition reflects the current design treatment capacity of the Facility and ensures that the influent flow will not exceed the Facility's hydraulic and treatment capacity. This prohibition replaces the monthly average dry weather effluent flow limitation contained in Order R3-2010-0043.
4. **Discharge Prohibition III.D** (Discharges of radiological, chemical, or biological warfare agent or high level radioactive waste to the Ocean is prohibited). This prohibition restates a discharge prohibition established in section III.I.1 of the Ocean Plan.
5. **Discharge Prohibition III.E** (Federal law prohibits the discharge of sludge by pipeline the Ocean. The discharge of municipal or industrial waste sludge directly to the Ocean or into a waste stream that discharges to the Ocean is prohibited. The discharge of sludge digester supernatant, without further treatment, directly to the Ocean or to a waste stream that discharges to the Ocean, is prohibited.) This prohibition reflects the prohibition in section III.H of the Ocean Plan.
6. **Discharge Prohibition III.F** (The overflow or bypass of wastewater from the Discharger's collection, treatment, or disposal facilities and the subsequent discharge of untreated or partially treated wastewater, except as provided for in Attachment D, Standard Provision I.G. (Bypass), is prohibited). The discharge of untreated or partially treated wastewater from the Discharger's collection, treatment, or disposal facilities represents an unauthorized bypass pursuant to 40 CFR 122.41 (m) or an unauthorized discharge, which poses a threat to human health and/or aquatic life, and therefore, is explicitly prohibited by the Order.

7. **Discharge Prohibition III.G** (Materials and substances that are prohibited). This prohibition has been retained from the previous Order and reflects water quality objectives at Chapter II.C the Ocean Plan.

## B. Technology-Based Effluent Limitations

### 1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. Where U.S. EPA has not yet developed technology based standards for a particular industry or a particular pollutant, CWA Section 402(a)(1) and U.S. EPA regulations at 40 C.F.R. section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit writer must consider specific factors outlined at 40 C.F.R. section 125.3.

This Order includes limitations based on the minimum level of effluent quality attainable by secondary treatment, as established at 40 C.F.R. part 133. The secondary treatment regulation includes the following limitations applicable to all publicly owned treatment works (POTWs).

- a. **BOD<sub>5</sub> and TSS.** Federal Regulations, 40 CFR 133, establish the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for BOD<sub>5</sub> and TSS. In addition, 40 CFR 133.102, in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average percent removal shall not be less than 85 percent.
- b. **Total Organic Carbon (TOC).** 40 CFR section 133.104(b) allow for the substitution of BOD<sub>5</sub> technology-based effluent limitations in instances when a long-term BOD<sub>5</sub> to TOC trend or correlation has been demonstrated. Under Order R3-2010-0043, the Central Coast Water Board evaluated the relationship between BOD<sub>5</sub> and TOC using 60 paired samples reported from November 2005 through November 2006. The relationship between the parameters can be described by the following equation ( $R^2 = 0.9532$ ):

$$\text{TOC (mg/L)} = 0.4141 (\text{BOD}_5; \text{mg/L}) + 4.3937$$

This relationship results in a translation of the BOD<sub>5</sub> secondary treatment standards to equivalent TOC limitations of 17 mg/L (average monthly) and 23 mg/L (average weekly). These limitations and the TOC percent reduction limitation are retained in this Order from Order R3-2010-0043.

- c. **pH.** Federal Regulations, 40 CFR Part 133, also establish technology-based effluent limitations for pH for secondary treated wastewater. The secondary treatment standards require the pH of the effluent to be no lower than 6.0 and no greater than 9.0 standard units.

**Table F-8. Secondary Treatment Requirements**

Parameter	Monthly Average	Weekly Average
TOC <sup>[1,2]</sup>	17 mg/L	23 mg/L
TSS <sup>[2]</sup>	30 mg/L	45 mg/L

Parameter	Monthly Average	Weekly Average
pH	6.0 – 9.0 standard units	

<sup>[1]</sup> This Order carries forward from Order R3-2010-0043 TOC limitations in place of BOD<sub>5</sub> limitations. These limitations are equivalent to the standard limitations for BOD<sub>5</sub> contained in 40 CFR 133.

<sup>[2]</sup> The monthly average percent removal, by concentration, is not to be less than 85 percent.

- d. Table 2 of the Ocean Plan establishes technology-based requirements, applicable to POTWs and industrial discharges for which Effluent Limitations Guidelines have not been established. The Table 2 Ocean Plan effluent limitations are summarized below:

**Table F-9. Ocean Plan Table 2 Requirements**

Parameter	Units	30-day Average	7-day Average	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225

Table 2 of the Ocean Plan establishes effluent limitations for pH, which require pH to be within 6.0 and 9.0 pH units at all times. Further, Table 2 establishes a 75 percent minimum removal requirement for suspended solids, unless the effluent limitation is less than 60 mg/L. This Order implements the more stringent 85 percent suspended solids removal limitation based on the Secondary Treatment Standards at 40 CFR 133.

## 2. Applicable Technology-Based Effluent Limitations

Title 40 CFR 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 CFR 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. This Order includes effluent limitations expressed in terms of mass and concentration. In addition, pursuant to the exceptions to mass limitations provided in 40 CFR 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass-based effluent limitations were calculated based upon the permitted average daily discharge flow of the POTW of 17 MGD.

The following tables summarize technology-based effluent limitations established by the Order.

**Table F-10. Summary of Technology-Based Effluent Limitations**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
TOC <sup>[1]</sup>	mg/L	17	23	--
	lbs/day	2,412	3,263	--
TSS <sup>[1]</sup>	mg/L	30	45	--
	lbs/day	4,255	6,384	--



Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Oil and Grease	mg/L	25	40	75
	lbs/day	3,546	5,675	10,640
pH	Standard units	6.0 – 9.0		
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225

[1] The average monthly percent removal of BOD<sub>5</sub>, TOC, and TSS shall not be less than 85 percent.

## C. Water Quality-Based Effluent Limitations (WQBELs)

### 1. Scope and Authority

CWA Section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) of 40 C.F.R. requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the Ocean Plan.

### 2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

Beneficial uses for ocean waters of the Central Coast Region are established by the Basin Plan and California Ocean Plan and are described in section III.C.1 and III.C.3, respectively, of the Fact Sheet. The water quality objectives (WQOs) from the California Ocean Plan are incorporated as receiving water limitations into this Order.

Water quality objectives applicable to ocean waters of the Central Coast region include water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. In addition, Table 1 of the California Ocean Plan contains numeric water quality objectives for 83 toxic pollutants for the protection of marine aquatic life and human health. Pursuant to NPDES regulations at 40 C.F.R. section 122.44(d)(1) and in accordance with procedures established by the California Ocean Plan, the Central Coast Water Board has performed a reasonable potential analysis (RPA) to determine the need for effluent limitations for the Table 1 toxic pollutants.

### 3. Determining the Need for WQBELs

Procedures for performing an RPA for ocean dischargers are described in Section III.C and Appendix VI of the California Ocean Plan. The procedure is a statistical method that projects an effluent data set while taking into account the averaging period of WQOs, the long term variability of pollutants in the effluent, limitations associated with sparse data sets, and uncertainty associated with censored data sets. The procedure assumes a lognormal distribution of the effluent data set and compares the 95<sup>th</sup> percentile concentration at 95<sup>th</sup> percent confidence of each Table 1 pollutant, accounting for dilution, to the applicable water quality criterion. The RPA results in one of three following endpoints.

- Endpoint 1 -           There is “reasonable potential.” An effluent limitation must be developed for the pollutant. Effluent monitoring for the pollutant, consistent with the monitoring frequency in Appendix III (Ocean Plan), is required.
- Endpoint 2 -           There is no “reasonable potential.” An effluent limitation is not required for the pollutant. Appendix III (Ocean Plan) effluent monitoring is not required for the pollutant; the Central Coast Board, however, may require occasional monitoring for the pollutant or for whole effluent toxicity as appropriate.
- Endpoint 3 -           The RPA is inconclusive. Monitoring for the pollutant or whole effluent toxicity testing, consistent with the monitoring frequency in Appendix III, is required. An existing effluent limitation for the pollutant shall remain in the permit, otherwise the permit shall include a reopener clause to allow for subsequent modification of the permit to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contribute to an excursion above a Table 1 water quality objective.

The State Water Board has developed a reasonable potential calculator, which is available at:

[http://www.waterboards.ca.gov/water\\_issues/programs/ocean/docs/trirev/stakeholder050505/rpcalc22\\_setup.zip](http://www.waterboards.ca.gov/water_issues/programs/ocean/docs/trirev/stakeholder050505/rpcalc22_setup.zip)

The calculator (RPcalc 2.2) was used in the development of this Order and considers several pathways in the determination of reasonable potential.

#### e. First Path

If available information about the receiving water or the discharge supports a finding of reasonable potential without analysis of effluent data, the Central Coast Water Board may decide that WQBELs are necessary after a review of such information. Such information may include: the facility or discharge type, solids loading, lack of dilution, history of compliance problems, potential toxic effects, fish tissue data, 303(d) status of the receiving water, the presence of threatened or endangered species or their critical habitat, or other information.

f. Second Path

If any pollutant concentration, adjusted to account for dilution, is greater than the most stringent applicable WQO, there is reasonable potential for that pollutant.

g. Third Path

If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the minimum level (ML), and all values in the data set are at or above the ML, a parametric RPA is conducted to project the range of possible effluent values. The 95<sup>th</sup> percentile concentration is determined at 95 percent confidence for each pollutant, and compared to the most stringent applicable water quality objective to determine reasonable potential. A parametric analysis assumes that the range of possible effluent values is distributed log-normally. If the 95<sup>th</sup> percentile value is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

h. Fourth Path

If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the ML), but at least one value in the data set is less than the ML, a parametric RPA is conducted according to the following steps:

- i. If the number of censored values (those expressed as a “less than” value) account for less than 80 percent of the total number of effluent values, calculate the  $\bar{M}_L$  (the mean of the natural log of transformed data) and  $S_L$  (the standard deviation of the natural log of transformed data) and conduct a parametric RPA, as described above for the Third Path.
- ii. If the total number of censored values account for 80 percent of the total number of effluent values, conduct a non-parametric RPA, as described below for the Fifth Path. (A non-parametric analysis becomes necessary when the effluent data is limited, and no assumptions can be made regarding its possible distribution).

i. Fifth Path

A non-parametric RPA is conducted when the effluent data set contains less than three detected and quantified values, or when the effluent data set contains three or more detected and quantified values but the number of censored values accounts for 80 percent or more of the total of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable WQO, and accounting for ties. The sample number is reduced by one for each tie, when the dilution-adjusted method detection limit (MDL) is greater than the water quality objective. If the adjusted sample number, after accounting for ties, is greater than 15, the pollutant has no reasonable potential to exceed the WQO. If the sample number is 15 or less, the RPA is inconclusive, monitoring is required, and any existing effluent limits in the expiring permit are retained.

An RPA was conducted using effluent monitoring data reported for December 2010 to April 2016. The implementation provisions for Table 1 in Section III.C of the Ocean Plan specify that the minimum initial dilution is the lowest average initial dilution within any single month of the year. Dilution estimates shall be based on observed waste flow characteristics, observed receiving water density structure, and the assumption that no

currents of sufficient strength to influence the initial dilution process flow across the discharge structure. Order No. R3-2010-0043 established the minimum initial dilution factor (Dm) for the discharge to be 139 to 1 (seawater to effluent). This Dm of 139:1 is retained in this Order and applied to the WQBELs established herein.

A summary of the RPA results is provided below. As shown in the table, due to insufficient data, the RPA frequently leads to Endpoint 3 meaning that the RPA was inconclusive. In these circumstances, the Ocean Plan requires that existing effluent limitations for those pollutants (for which the RPA is inconclusive) remain in the reissued permit. When the RPA leads to Endpoint 2 meaning there is no reasonable potential for that pollutant, the limit has been removed for this permit term.

When using all available data for the past permit term, the RPA displayed "reasonable potential," indicated by a result of Endpoint 1, for cyanide, PAHs, total residual chlorine, and TCDD-equivalents. RPA results that did not result in Endpoint 3 are bolded in the following.

**Table F-11. RPA Results for Discharges to the Pacific Ocean**

Parameter	Most Stringent WQO (µg/L)	N <sup>[1]</sup>	Number of Non-Detects	Max Effluent Conc. (µg/L) <sup>[2], [3]</sup>	RPA Result/Comment <sup>[4]</sup>
<b>Objectives for Protection of Marine Aquatic Life</b>					
Arsenic, Total Recoverable	8	24	1	3.3	<b>Endpoint 2 – Effluent limitation not required.</b>
Cadmium, Total Recoverable	1	20	18	0.8	<b>Endpoint 2 – Effluent limitation not required.</b>
Chromium (VI), Total	2	5	1	0.96	<b>Endpoint 2 – Effluent limitation not required.</b>
Copper, Total Recoverable	3	24	2	75	<b>Endpoint 2 – Effluent limitation not required.</b>
Lead, Total Recoverable	2	20	18	5.2	<b>Endpoint 2 – Effluent limitation not required.</b>
Mercury, Total Recoverable	0.04	19	14	0.15	<b>Endpoint 2 – Effluent limitation not required.</b>
Nickel, Total Recoverable	5	24	1	4.6	<b>Endpoint 2 – Effluent limitation not required.</b>
Selenium, Total Recoverable	15	23	11	1.2	<b>Endpoint 2 – Effluent limitation not required.</b>
Silver, Total Recoverable	0.7	29	27	0.69	<b>Endpoint 2 – Effluent limitation not required.</b>
Zinc, Total Recoverable	20	24	1	190	<b>Endpoint 2 – Effluent limitation not required.</b>
Cyanide, Total	1	10	0	6.9	<b>Endpoint 1 – Effluent limitation is necessary.</b>
Total Chlorine, Residual	2	9	0	2,040	<b>Endpoint 1 – Effluent limitation is necessary.</b>
Ammonia (as N)	600	200	0	48.4	<b>Endpoint 2 – Effluent limitation not required.</b>
Acute Toxicity	0.3	22	0	16.19	<b>Endpoint 1 – Effluent limitation is necessary.<sup>[5]</sup></b>

Parameter	Most Stringent WQO (µg/L)	N <sup>[1]</sup>	Number of Non-Detects	Max Effluent Conc. (µg/L) <sup>[2], [3]</sup>	RPA Result/Comment <sup>[4]</sup>
Chronic Toxicity	1	22	0	8	<b>Endpoint 1 – Effluent limitation is necessary.</b> <sup>[5]</sup>
Non-Chlorinated Phenolic Compounds	30	27	9	22	<b>Endpoint 2 – Effluent limitation not required.</b>
Chlorinated Phenolic Compounds	1	27	9	17	<b>Endpoint 2 – Effluent limitation not required.</b>
Endosulfan	0.009	1	1	<1	Endpoint 3 – RPA is inconclusive.
Endrin	0.002	1	1	<1	Endpoint 3 – RPA is inconclusive.
HCH	0.004	1	1	<1	Endpoint 3 – RPA is inconclusive.
Radioactivity	--	--	--	--	--
<b>Objectives for Protection of Human Health – Non-Carcinogens</b>					
Acrolein	220	7	7	<5	Endpoint 3 – RPA is inconclusive.
Antimony	1,200	23	18	0.83	<b>Endpoint 2 – Effluent limitation not required.</b>
Bis(2-chloroethoxy) Methane	4.4	8	8	<1	Endpoint 3 – RPA is inconclusive.
Bis(2-chloroisopropyl) ether	1,200	8	8	<1	Endpoint 3 – RPA is inconclusive.
Chlorobenzene	570	2	2	<0.5	Endpoint 3 – RPA is inconclusive.
Chromium (III)	190,000	5	1	0.96	<b>Endpoint 2 – Effluent limitation not required.</b>
Di-n-butyl Phthalate	3,500	8	8	<1	Endpoint 3 – RPA is inconclusive.
Dichlorobenzenes	5,100	1	1	<1.3	Endpoint 3 – RPA is inconclusive.
Diethyl Phthalate	33,000	7	7	<1	Endpoint 3 – RPA is inconclusive.
Dimethyl Phthalate	820,000	8	8	<1	Endpoint 3 – RPA is inconclusive.
4,6-dinitro-2-methylphenol	220	11	11	<10	Endpoint 3 – RPA is inconclusive.
2,4-dinitrophenol	4	9	9	<0.05	Endpoint 3 – RPA is inconclusive.
Ethylbenzene	4,100	2	2	<0.5	Endpoint 3 – RPA is inconclusive.
Fluoranthene	15	8	8	<0.51	Endpoint 3 – RPA is inconclusive.
Hexachlorocyclopentadiene	58	9	9	<5	Endpoint 3 – RPA is inconclusive.
Nitrobenzene	4.9	8	7	54	Endpoint 3 – RPA is inconclusive.
Thallium	2	20	18	0.5	<b>Endpoint 2 – Effluent limitation not required.</b>
Toluene	85,000	7	5	0.99	Endpoint 3 – RPA is inconclusive.

Parameter	Most Stringent WQO (µg/L)	N <sup>[1]</sup>	Number of Non-Detects	Max Effluent Conc. (µg/L) <sup>[2], [3]</sup>	RPA Result/Comment <sup>[4]</sup>
Tributyltin	0.0014	6	6	<0.0006	Endpoint 3 – RPA is inconclusive.
1,1,1-trichloroethane	540,000	7	7	<0.5	Endpoint 3 – RPA is inconclusive.
<b>Objectives for Protection of Human Health – Carcinogens</b>					
Acrylonitrile	0.1	7	7	<2	Endpoint 3 – RPA is inconclusive.
Aldrin	0.000022	4	4	<0.000011	Endpoint 3 – RPA is inconclusive.
Benzene	5.9	2	2	<0.5	Endpoint 3 – RPA is inconclusive.
Benzidine	0.000069	6	6	<6.3	Endpoint 3 – RPA is inconclusive.
Beryllium	0.033	10	10	<0.5	Endpoint 3 – RPA is inconclusive.
Bis(2-chloroethyl) Ether	0.045	8	8	<0.5	Endpoint 3 – RPA is inconclusive.
Bis(2-ethylhexyl) Phthalate	3.5	6	6	<2	Endpoint 3 – RPA is inconclusive.
Carbon Tetrachloride	0.9	2	2	<0.5	Endpoint 3 – RPA is inconclusive.
Chlordane	0.000023	4	3	0.00084	Endpoint 3 – RPA is inconclusive.
Chlorodibromomethane	8.6	7	7	<0.5	Endpoint 3 – RPA is inconclusive.
Chloroform	130	7	1	0.73	<b>Endpoint 2 – Effluent limitation not required.</b>
DDT	0.00017	1	0	0.00018	Endpoint 3 – RPA is inconclusive.
1,4-dichlorobenzene	18	6	6	<0.5	Endpoint 3 – RPA is inconclusive.
3,3'-dichlorobenzidine	0.0081	6	6	<2	Endpoint 3 – RPA is inconclusive.
1,2-dichloroethane	28	4	4	<0.5	Endpoint 3 – RPA is inconclusive.
1,1-dichloroethylene	0.9	4	4	<0.5	Endpoint 3 – RPA is inconclusive.
Dichlorobromomethane	6.2	5	5	<0.5	Endpoint 3 – RPA is inconclusive.
Dichloromethane (Methylene Chloride)	450	1	0	0.52	Endpoint 3 – RPA is inconclusive.
1,3-dichloropropene	8.9	NR	NR	NR	Endpoint 3 – RPA is inconclusive.
Dieldrin	0.00004	4	3	0.0010	Endpoint 3 – RPA is inconclusive.
2,4-dinitrotoluene	2.6	8	8	<1	Endpoint 3 – RPA is inconclusive.
1,2-diphenylhydrazine	0.16	8	8	<1	Endpoint 3 – RPA is inconclusive.

Parameter	Most Stringent WQO (µg/L)	N <sup>[1]</sup>	Number of Non-Detects	Max Effluent Conc. (µg/L) <sup>[2], [3]</sup>	RPA Result/Comment <sup>[4]</sup>
Halomethanes	130	1	0	1.6	Endpoint 3 – RPA is inconclusive.
Heptachlor	0.00005	4	4	<0.000029	Endpoint 3 – RPA is inconclusive.
Heptachlor Epoxide	0.00002	3	3	<0.021	Endpoint 3 – RPA is inconclusive.
Hexachlorobenzene	0.00021	9	9	<1	Endpoint 3 – RPA is inconclusive.
Hexachlorobutadiene	14	7	7	<1	Endpoint 3 – RPA is inconclusive.
Hexachloroethane	2.5	7	7	<1	Endpoint 3 – RPA is inconclusive.
Isophorone	730	8	8	<1	Endpoint 3 – RPA is inconclusive.
N-nitrosodimethylamine	7.3	8	8	<0.51	Endpoint 3 – RPA is inconclusive.
N-nitrosodi-N-propylamine	0.38	8	8	<1	Endpoint 3 – RPA is inconclusive.
N-nitrosodiphenylamine	2.5	8	8	<1	Endpoint 3 – RPA is inconclusive.
PAHs	0.0088	1	0	4.9	<b>Endpoint 1 – Effluent limitation is necessary.</b>
PCBs	0.000019	1	1	<0.5	Endpoint 3 – RPA is inconclusive.
TCDD equivalents	3.9E-09	3	0	9.8 x 10 <sup>-7</sup>	<b>Endpoint 1 – Effluent limitation is necessary.</b>
1,1,2,2-tetrachloroethane	2.3	8	8	<0.5	Endpoint 3 – RPA is inconclusive.
Tetrachloroethylene (Tetrachloroethene)	2	6	6	<0.5	Endpoint 3 – RPA is inconclusive.
Toxaphene	0.00021	4	4	<0.42	Endpoint 3 – RPA is inconclusive.
Trichloroethylene	27	7	7	<0.5	Endpoint 3 – RPA is inconclusive.
1,1,2-trichloroethane	9.4	7	7	<0.5	Endpoint 3 – RPA is inconclusive.
2,4,6-trichlorophenol	0.29	6	6	<1	Endpoint 3 – RPA is inconclusive.
Vinyl Chloride	36	7	7	<0.5	Endpoint 3 – RPA is inconclusive.

NR indicates that effluent data were not reported.

<sup>[1]</sup> Number of data points available for the RPA.

<sup>[2]</sup> If there is a detected value, the highest reported value is summarized in the table. If there are no detected values, the lowest MDL is summarized in the table.

<sup>[3]</sup> Note that the reported MEC does not account for dilution. The RPA does account for dilution; therefore it is possible for a parameter with an MEC in exceedance of the most stringent criteria not to present a RP (i.e., Endpoint 1).

<sup>[4]</sup> Endpoint 1 – RP determined, limit required, monitoring required.

Endpoint 2 – Discharger determined not to have RP, monitoring may be established.

Endpoint 3 – RPA was inconclusive, carry over previous limits if applicable, establish monitoring.



<sup>[5]</sup> Endpoint 1 has been determined on the basis of Step 13 (BPJ) of the Ocean Plan RPA procedure.

#### 4. WQBEL Calculations

Based on results of the RPA, the Central Coast Water Board is establishing WQBELs for cyanide, total residual chlorine, PAHs, and TCDD equivalents based on a conclusion of Endpoint 1. An Endpoint 2 was concluded for ammonia, antimony, arsenic, cadmium, chlorinated phenolic compounds, chloroform, hexavalent and trivalent chromium, copper, lead, mercury, nickel, non-chlorinated phenolic compounds, selenium, silver, thallium, and zinc. All other California Ocean Plan Table 1 pollutants resulted in an Endpoint 3 and the limits for these pollutants are retained in this Order, with the exception of fluoranthene which did not possess a limitation in the previous permit.

As described by Section III. C of the California Ocean Plan, effluent limitations for Table 1 pollutants are calculated according to the following equation.

$$C_e = C_o + D_m (C_o - C_s)$$

Where

$C_e$  = the effluent limitation ( $\mu\text{g/L}$ )

$C_o$  = the concentration (the water quality objective) to be met at the completion of initial dilution ( $\mu\text{g/L}$ ).

$C_s$  = background seawater concentration ( $\mu\text{g/L}$ )

$D_m$  = minimum probable initial dilution expressed as parts seawater per part wastewater (here  $D_m = 139$ )

For the Facility, the  $D_m$  of 139 is unchanged from Order No. R3-2010-0043. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. As site-specific water quality data are not available, in accordance with Table 1 implementing procedures,  $C_s$  equals zero for all pollutants, except the following.

**Table F-12. Background Concentrations ( $C_s$ ) – California Ocean Plan (Table 3)**

Pollutant	Background Seawater Concentration
Arsenic	3 $\mu\text{g/L}$
Copper	2 $\mu\text{g/L}$
Mercury	0.0005 $\mu\text{g/L}$
Silver	0.16 $\mu\text{g/L}$
Zinc	8 $\mu\text{g/L}$

Applicable water quality objectives from Table 1 of the California Ocean Plan are as follows:

**Table F-13. Quality Objectives ( $C_o$ ) – California Ocean Plan (Table 1) Objectives for Protection Aquatic Life**

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Arsenic	$\mu\text{g/L}$	8	32	80
Cadmium	$\mu\text{g/L}$	1	4	10

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Chromium (VI)	µg/L	2	8	20
Copper	µg/L	3	12	30
Lead	µg/L	2	8	20
Mercury	µg/L	0.04	0.16	0.4
Nickel	µg/L	5	20	50
Selenium	µg/L	15	60	150
Silver	µg/L	0.7	2.8	7
Zinc	µg/L	20	80	200
Cyanide	µg/L	1	4	10
Total Chlorine Residual	µg/L	2	8	60
Ammonia	µg/L	600	2,400	6,000
Acute Toxicity	TUa	--	0.3	--
Chronic Toxicity	TUc	--	1	--
Non-Chlorinated Phenolic Compounds	µg/L	30	120	300
Chlorinated Phenolics	µg/L	1	4	10
Endosulfan	µg/L	0.009	0.018	0.027
Endrin	µg/L	0.002	0.004	0.006
HCH	µg/L	0.004	0.008	0.012
Radioactivity	µg/L	--	--	--

**Table F-14. Quality Objectives (Co) – California Ocean Plan (Table 1) Objectives for Human Health**

Pollutant	Units	6-Month Median
<b>Noncarcinogens</b>		
Acrolein	µg/L	220
Antimony	µg/L	1,200
Bis(2-Chloroethoxy)Methane	µg/L	4.4
Bis(2-Chloroisopropyl)Ether	µg/L	1,200
Chlorobenzene	µg/L	570
Chromium (III)	µg/L	190,000
Di-n-Butyl Phthalate	µg/L	3,500
Dichlorobenzenes	µg/L	5,100
Diethyl Phthalate	µg/L	33,000
Dimethyl Phthalate	µg/L	820,000
2-Methyl-4,6-Dinitrophenol	µg/L	220
2,4-Dinitrophenol	µg/L	4
Ethylbenzene	µg/L	4,100
Fluoranthene	µg/L	15
Hexachlorocyclopentadiene	µg/L	58
Nitrobenzene	µg/L	4.9

Pollutant	Units	6-Month Median
Thallium	µg/L	2
Toluene	µg/L	85,000
Tributyltin	µg/L	0.0014
1,1,1-Trichloroethane	µg/L	540,000
<b>Carcinogens</b>		
Acrylonitrile	µg/L	0.1
Aldrin	µg/L	0.000022
Benzene	µg/L	5.9
Benzidine	µg/L	0.000069
Beryllium	µg/L	0.033
Bis(2-Chloroethyl)Ether	µg/L	0.045
Bis(2-Ethylhexyl)Phthalate	µg/L	3.5
Carbon Tetrachloride	µg/L	0.9
Chlordane	µg/L	0.000023
Chlorodibromomethane	µg/L	8.6
Chloroform	µg/L	130
DDT (total)	µg/L	0.00017
1,4 Dichlorobenzene	µg/L	18
3,3'-Dichlorobenzidine	µg/L	0.0081
1,2-Dichloroethane	µg/L	28
1,1-Dichloroethylene	µg/L	0.9
Dichlorobromomethane	µg/L	6.2
Methylene Chloride	µg/L	450
1,3-Dichloropropylene	µg/L	8.9
Dieldrin	µg/L	0.00004
2,4-Dinitrotoluene	µg/L	2.6
1,2-Diphenylhydrazine	µg/L	0.16
Halomethanes	µg/L	130
Heptachlor	µg/L	0.00005
Heptachlor Epoxide	µg/L	0.00002
Hexachlorobenzene	µg/L	0.00021
Hexachlorobutadiene	µg/L	14
Hexachloroethane	µg/L	2.5
Isophorone	µg/L	730
N-Nitrosodimethylamine	µg/L	7.3
N-Nitrosodi-n-Propylamine	µg/L	0.038
N-Nitrosodiphenylamine	µg/L	2.5
PAHs (total)	µg/L	0.0088
PCBs	µg/L	0.000019
TCDD Equivalents	µg/L	0.0000000039
1,1,2,2-Tetrachloroethane	µg/L	2.3
Tetrachloroethylene	µg/L	2
Toxaphene	µg/L	0.00021
Trichloroethylene	µg/L	27

Pollutant	Units	6-Month Median
1,1,2-Trichloroethane	µg/L	9.4
2,4,6-Trichlorophenol	µg/L	0.29
Vinyl Chloride	µg/L	36

Effluent limitations are calculated using the equation  $C_e = C_o + D_m (C_o - C_s)$  as outlined above. For example, the effluent limitations for copper are calculated as follows using discharge  $D_m$  (all limits calculated are expressed with two significant digits).

#### Copper

$$C_e = 3 + 139 (3 - 2) = 140 \text{ µg/L (6-Month Median)}$$

$$C_e = 12 + 139 (12 - 2) = 1,500 \text{ µg/L (Daily Maximum)}$$

$$C_e = 30 + 139 (30 - 2) = 4,700 \text{ µg/L (Instantaneous Maximum)}$$

#### Chronic Toxicity

$$C_e = 1 + 139 (1 - 0) = 140 \text{ TU}_c \text{ (Daily Maximum)}$$

#### Acute Toxicity

To determine an effluent limitation for acute toxicity, the California Ocean Plan allows a mixing zone that is ten percent of the distance from the edge of the outfall structure to the edge of the chronic mixing zone (the zone of initial dilution); and therefore, the effluent limitation for acute toxicity is determined by the following equation:

$$C_e = C_o + (0.1) D_m (C_o)$$

Where  $C_o$  equals 0.3 and  $D_m$  equals 139, the effluent limitation for acute toxicity is 4.5  $\text{TU}_a$ .

**Table F-15. Effluent Limitations for the Protection of Marine Aquatic Life**

Parameter	Units	Effluent Limitation		
		6-Month Median	Maximum Daily	Instantaneous Maximum
Cyanide, Total <sup>[1]</sup>	µg/L	140	560	1,400
Total Chlorine Residual <sup>[2]</sup>	µg/L	280	1,100	8,400
Acute Toxicity	$\text{TU}_a$	--	42	--
Chronic Toxicity	$\text{TU}_c$	--	140	--
Endosulfan	µg/L	1.3	2.5	3.8
Endrin	µg/L	0.28	0.56	0.84
HCH	µg/L	0.56	1.1	1.7
Radioactivity	Not to exceed limits specified in California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443			

<sup>[1]</sup> If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board (subject to U.S. EPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometallic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 C.F.R. part 136, as revised May 14, 1999.

<sup>[2]</sup> Water quality objectives for total chlorine residual applying to intermittent discharges not exceeding two hours shall be determined using the following equation:

$$\log y = -0.43 (\log x) + 1.8$$

where y = the water quality objective (in µg/L) to apply when chlorine is being discharged; and x = the duration of uninterrupted chlorine discharge in minutes.

**Table F-16. Effluent Limitations for the Protection of Human Health**

Parameter	Unit	30-Day Average
<b>Noncarcinogens</b>		
Acrolein	µg/L	3.1E+04
Bis(2-chloroethoxy) Methane	µg/L	6.2E+02
Bis(2-chloroisopropyl) ether	µg/L	1.7E+05
Chlorobenzene	µg/L	8.6E+04
Di-n-butyl Phthalate	µg/L	4.9E+05
Dichlorobenzenes <sup>[1]</sup>	µg/L	7.1E+05
Diethyl Phthalate	µg/L	4.6E+06
Dimethyl Phthalate	µg/L	1.1E+08
4,6-dinitro-2-methylphenol	µg/L	3.1E+04
2,4-dinitrophenol	µg/L	5.6E+02
Ethylbenzene	µg/L	5.7E+05
Hexachlorocyclopentadiene	µg/L	8.1E+03
Nitrobenzene	µg/L	6.9E+02
Toluene	µg/L	1.2E+07
Tributyltin	µg/L	2.0E-01
1,1,1-Trichloroethane	µg/L	7.6E+07
<b>Carcinogens</b>		
Acrylonitrile	µg/L	1.4E+01
Aldrin	µg/L	3.1E-03
Benzene	µg/L	8.3E+02
Benzidine	µg/L	9.7E-03
Beryllium	µg/L	4.6
Bis(2-chloroethyl) Ether	µg/L	6.3
Bis(2-ethylhexyl) Phthalate	µg/L	4.9E+02
Carbon Tetrachloride	µg/L	1.3E+03
Chlordane <sup>[2]</sup>	µg/L	3.2E-03
Chlorodibromomethane	µg/L	1.2E+03
DDT <sup>[3]</sup>	µg/L	2.4E-02
1,4-dichlorobenzene	µg/L	2.5E+03
3,3'-dichlorobenzidine	µg/L	1.1
1,2-dichloroethane	µg/L	3.9E+03
1,1-dichloroethylene	µg/L	1.3E+02
Dichlorobromomethane	µg/L	8.7E+02
Dichloromethane (Methylene Chloride)	µg/L	6.3E+04
Dieldrin	µg/L	5.6E-03
2,4-dinitrotoluene	µg/L	3.6E+02

Parameter	Unit	30-Day Average
1,2-diphenylhydrazine	µg/L	2.2E+01
Halomethanes <sup>[4]</sup>	µg/L	1.8E+04
Heptachlor	µg/L	7.0E-03
Heptachlor Epoxide	µg/L	2.8E-03
Hexachlorobenzene	µg/L	2.9E-02
Hexachlorobutadiene	µg/L	2.0E+03
Hexachloroethane	µg/L	3.5E+02
Isophorone	µg/L	1.0E+05
N-nitrosodimethylamine	µg/L	1.0E+03
N-nitrosodi-N-propylamine	µg/L	5.3E+01
N-nitrosodiphenylamine	µg/L	3.5E+02
PAHs <sup>[5]</sup>	µg/L	1.2
PCBs <sup>[6]</sup>	µg/L	2.7E-03
TCDD equivalents <sup>[7]</sup>	µg/L	5.5E-07
1,1,2,2-tetrachloroethane	µg/L	3.2E+02
Tetrachloroethylene	µg/L	2.8E+02
Toxaphene	µg/L	2.9E+02
Trichloroethylene	µg/L	3.8E+03
1,1,2-Trichloroethane	µg/L	1.3E+03
2,4,6-trichlorophenol	µg/L	4.1E+01
Vinyl Chloride	µg/L	5.0E+03

<sup>[1]</sup> Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.

<sup>[2]</sup> Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

<sup>[3]</sup> DDT shall mean the sum of 4,4'DDT; 2,4'DDT; 4,4'DDE; 2,4'DDE; 4,4'DDD; and 2,4'DDD.

<sup>[4]</sup> Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide), and chloromethane (methyl chloride). Based on data from 2010, 2011, and 2012. Missing data for 2013, 2014, and 2015.

<sup>[5]</sup> PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene; anthracene; 1,2-benzanthracene; 3,4-benzofluoranthene; benzo[k]fluoranthene; 1,12-benzoperylene; benzo(a)pyrene; chrysene; dibenzo(a,h)anthracene; fluorine; indeno(1,2,3-cd)pyrene; phenanthrene; and pyrene.

<sup>[6]</sup> PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

<sup>[7]</sup> TCDD Equivalents shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown below:

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001

Isomer Group	Toxicity Equivalence Factor
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

## 5. Bacteria

Effluent limitations for fecal and total coliform organisms have been retained from the previous Order and are necessary to ensure the proper functioning of the Facility's disinfection system, and to protect the beneficial uses of the receiving water prescribed in the Basin Plan and in the Ocean Plan.

## 6. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests - acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

Central Coast Water Board staff have determined that treated wastewater from the Facility has a reasonable potential to cause or contribute to acute and/or chronic toxicity in the discharge. Such a determination is consistent with the RPA procedure of the California Ocean Plan which requires consideration of all available information, including the "potential toxic impact of the discharge" to determine if WQBELs are necessary, notwithstanding the statistical procedure with which the RPA is conducted for most pollutants. Due to the multiple residential, commercial, and industrial contributors to the influent flow of the Facility, and because the cumulative effects of various pollutants present at low levels in the discharge are unknown, acute and chronic toxicity limitations are retained from the previous permit.

The Discharger must also maintain a toxicity reduction evaluation workplan, which describes steps that the Discharger intends to follow in the event that acute and/or chronic toxicity limitations are exceeded. When monitoring measures WET in the effluent above the limitations established by the Order, the Discharger must resample, if the discharge is continuing, and retest. The Executive Officer will then determine whether to initiate enforcement action, require the Discharger to implement a toxicity reduction evaluation, or to implement other measures.

## D. Final Effluent Limitation Considerations

Final, technology-based and water quality-based effluent limitations established by the Order are discussed in the preceding sections of the Fact Sheet.

### 1. Anti-Backsliding Requirements

The Order also retains most of the effluent limitations from the previous Order for the California Ocean Plan Table 1 toxic pollutants. The California Ocean Plan was amended in 2005 to include a procedure for determining "reasonable potential" by characterization of effluent monitoring data. The California Ocean Plan's Appendix VI procedure resulted



in a finding of endpoint 2 (i.e., “no reasonable potential”) for ammonia, antimony, arsenic, cadmium, chlorinated phenolic compounds, chloroform, hexavalent and trivalent chromium, copper, lead, mercury, nickel, non-chlorinated phenolic compounds, selenium, silver, thallium, and zinc in the discharge. Consistent with the California Ocean Plan, effluent limitations are not required for pollutants resulting in an Endpoint 2. The removal of these effluent limitations from this Order is consistent with CWA section 402(o)(2) and anti-backsliding regulations.

All other California Ocean Plan Table 1 pollutants resulted in an Endpoint 1 (i.e., “reasonable potential”) or Endpoint 3 (i.e., “inconclusive”). Therefore, the limitations for these pollutants (Endpoints 1 and 3) are retained in this Order. The Central Coast Water Board is also establishing WQBELs for whole effluent, acute and chronic toxicity, which are also pollutants or pollutant parameters identified by Table 1 of the California Ocean Plan.

## **2. Antidegradation Policies**

The Order does not authorize increases in discharge rates or pollutant loadings. The Order’s limitations and conditions ensure maintenance of the existing quality of receiving waters. Therefore, provisions of the Order are consistent with applicable antidegradation policy expressed by NPDES regulations at 40 C.F.R. 131.12 and State Water Board Resolution 68-16.

## **3. Stringency of Requirements for Individual Pollutants**

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on TOC which has been substituted for BOD<sub>5</sub>, TSS, settleable solids, turbidity, oil and grease, and pH. Restrictions on these pollutants are discussed in section IV. B of the Fact Sheet. This Order’s technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards. These limitations are not more stringent than required by the CWA.

Final, technology and water quality-based effluent limitations are summarized in sections IV.B and IV.C of this Fact Sheet.

## **E. Interim Effluent Limitations**

The Order does not establish interim effluent limitations and schedules for compliance with final limitations. Interim limitations are authorized only in certain circumstances when immediate compliance with newly established final water quality based limitations is not feasible.

## **E. Land Discharge Specifications**

This section of the standardized permit is not applicable to the City of Santa Cruz Wastewater Treatment Facility.

## **F. Recycling Specifications**

The Order does not address use of reclaimed wastewater except to require compliance with applicable State and local requirements regarding the production and use of reclaimed wastewater, including those requirements established by the State Water Board Division of Drinking Water at title 22, sections 60301 - 60355 of the California Code of Regulations, Water Recycling Criteria.

## **V. RATIONALE FOR RECEIVING WATER LIMITATIONS**

### **A. Surface Water**

Receiving water quality is a result of many factors, some unrelated to the discharge. This Order considers these factors and is designed to minimize the influence of the discharge on the receiving water. Receiving water limitations within this Order include the receiving water limitations of the previous order.

### **B. Groundwater**

Groundwater limitations established by the Order include general objectives for groundwater established by the Basin Plan for the Central Coast Water Board.

## **VI. RATIONALE FOR PROVISIONS**

### **A. Standard Provisions**

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment D to the order.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

### **B. Special Provisions**

#### **1. Reopener Provisions**

The Order may be modified in accordance with the requirements set forth at 40 C.F.R. sections 122 and 124, to include appropriate conditions or limits based on newly available information, or to implement any, new state water quality objectives that are approved by U.S. EPA. As effluent is further characterized through additional monitoring, and if a need for additional effluent limitations becomes apparent after additional effluent characterization, the Order will be reopened to incorporate such limitations.

#### **2. Special Studies and Additional Monitoring Requirements**

##### **a. Toxicity Reduction Requirements**

The requirement to maintain a toxicity reduction work plan is retained from Order R3-2010-0043. When toxicity monitoring measures acute or chronic toxicity in the effluent above the limitation established by this Order, the Discharger is required to resample and retest, if the discharge is continuing. When all monitoring results are available, the Executive Officer can determine whether to initiate enforcement action, whether to require the Discharger to implement toxicity reduction evaluation requirements or whether other measures are warranted.

##### **b. Water Contact Monitoring (Bacterial Characteristics)**

The requirement for repeat water-contact bacteriological monitoring is established in accordance with California Ocean Plan section III.D.1.b for exceedance of a single

sample maximum bacteria standard contained within section IV.A.1 of this Order. This provision is retained from the previous permit.

**c. Infiltration/Inflow and Spill Prevention Program Requirements**

Infiltration/inflow and spill prevention program requirements are retained from the previous permit.

**3. Best Management Practices and Pollution Prevention**

The 2015 California Ocean Plan establishes guidelines for the Pollutant Minimization Program (PMP). At the time of the proposed adoption of this Order no known evidence was available that would require the Discharger to immediately develop and conduct a PMP. The Central Coast Water Board will notify the Discharger in writing if such a program becomes necessary.

**4. Construction, Operation, and Maintenance Specifications – Not Applicable**

**5. Special Provisions for Publicly-Owned Treatment Works (POTWs)**

**a. Biosolids Management**

Provisions regarding sludge handling and disposal ensure that such activity will comply with all applicable regulations.

Section 503 of 40 C.F.R. sets forth U.S. EPA's final rule for the use and disposal of biosolids, or sewage sludge, and governs the final use or disposal of biosolids. The intent of this federal program is to ensure that sewage sludge is used or disposed of in a way that protects both human health and the environment.

U.S. EPA's regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the U.S. EPA has not delegated the authority to implement the sludge program to the State of California, the enforcement of sludge requirements that apply to the Discharger remains under U.S. EPA's jurisdiction at this time. U.S. EPA, not the Central Coast Water Board, will oversee compliance with 40 C.F.R. 503.

40 CFR Part 503.4 (Relationship to other regulations) states that the disposal of sewage sludge in a municipal solid waste landfill unit, as defined in 40 CFR 258.2, that complies with the requirements in 40 CFR part 258 constitutes compliance with section 405 (d) of the CWA. Any person who prepares sewage sludge that is disposed in a municipal solid waste landfill unit must ensure that the sewage sludge meets the applicable requirements of 40 CFR Part 503.

**b. Pretreatment**

Pretreatment requirements for POTWs are contained within 40 C.F.R. part 403. Per 40 C.F.R. part 403.8, any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 MGD and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards will be required to establish a POTW pretreatment program unless the NPDES state exercises its option to assume local responsibilities as provided for in section 403.10(e). The Executive Officer may require that a POTW with a design flow of 5 MGD or less develop a POTW pretreatment program if he or she finds that the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to

prevent interference with the POTW or pass through as defined in 40 C.F.R. part 403.3.

The Order retains pretreatment requirements as the Facility has total effluent flows in excess of 5 MGD.

## **6. Other Special Provisions**

### **a. Discharges of Stormwater**

Stormwater flows from the wastewater treatment process areas are directed to the headworks and discharged with treated wastewater. These stormwater flows constitute all industrial stormwater at this facility and, consequently, this permit regulates all industrial stormwater discharges at this facility along with wastewater discharges.

### **b. Sanitary Sewer System Requirements**

The Order requires coverage by and compliance with applicable provisions of General Waste Discharge Requirements for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ). This General Permit, adopted on May 2, 2006, is applicable to all "*federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California.*" The purpose of the General Permit is to promote the proper and efficient management, operation, and maintenance of sanitary sewer systems and to minimize the occurrences and impacts of sanitary sewer overflows.

## **7. Compliance Schedules – Not Applicable**

## **VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS**

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Coast Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

### **A. Influent Monitoring**

In addition to influent flow monitoring, monitoring for TOC, and TSS is required to determine compliance with the Order's 85 percent removal requirement for those pollutants.

### **B. Effluent Monitoring**

Effluent monitoring requirements of the previous permit for Discharge Point 001 are largely retained in this Order. Monitoring frequencies for Ocean Plan Table 1 pollutants for which effluent limitations are no longer applicable have been decreased to a semi-annual monitoring frequency.

### **C. Whole Effluent Toxicity Testing Requirements**

Whole effluent toxicity (WET) limitations protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period and chronic toxicity testing is conducted over a

longer period of time and may measure mortality, reproduction, and/or growth. This Order establishes acute and chronic WET limitations and monitoring requirements.

**D. Receiving Water Monitoring**

**1. Surface Water**

Receiving water quality is a result of many factors, some unrelated to the discharge. This Order considers these factors and is designed to minimize the influence of the discharge on the receiving water. Receiving water limitations within this Order include the receiving water limitations of the previous order.

**2. Groundwater**

Groundwater limitations established by the Order include general objectives for groundwater established by the Basin Plan for the Central Coast Water Board.

**E. Other Monitoring Requirements**

**1. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program.**

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), U.S. EPA requires major and selected minor permittees under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by U.S. EPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to U.S. EPA's DMR-QA Coordinator and Quality Assurance Manager.

**2. Biosolids/Sludge Monitoring.**

Biosolids monitoring requirements are retained from the previous Order.

**3. Pretreatment Monitoring.**

Pretreatment monitoring requirements are retained from the previous Order.

**4. Outfall Inspection.**

The Order retains the requirement of the previous permit to conduct annual visual inspections of the outfall and diffuser system and to conduct a dye study to visually inspect the entire outfall structure to determine whether there are leaks, potential leaks, or malfunctions. However, this Order allows the Discharger to conduct these two inspections in different months of the year in order to optimize the conditions observations during each test.

## VIII. PUBLIC PARTICIPATION

The Central Coast Water Board considered the issuance of WDRs that serve as an NPDES permit for the City of Santa Cruz Wastewater Treatment Facility. As a step in the WDR adoption process, the Central Coast Water Board staff developed tentative WDRs and encouraged public participation in the WDR adoption process.

### A. Notification of Interested Parties

The Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through publication in the Santa Cruz Sentinel on September 12 and September 17, 2017. The City of Santa Cruz also posted the public notice at municipal offices and published the item at the City's online resource links below:

<https://www.cityofsantacruz.com/community/city-calendar/-curm-12/-cury-2017>

<http://www.cityofsantacruz.com/Home/Components/Calendar/Event/11890/30?curm=12&cury=2017>

<https://www.facebook.com/cityofsantacruzpublicworks/>

The public had access to the agenda and any changes in dates and locations through the Central Coast Water Board's website at: <http://www.waterboards.ca.gov/centralcoast/>

### B. Written Comments

Interested persons were invited to submit written comments concerning the tentative WDRs as provided through the notification process. Comments were due either in person, via electronic mail ([centralcoast@waterboards.ca.gov](mailto:centralcoast@waterboards.ca.gov)) or by mail to the Executive Officer at the Central Coast Water Board at:

Central Coast Water Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401

To be fully responded to by staff and considered by the Central Coast Water Board, the written comments were due at the Central Coast Water Board office by 5:00 p.m. on October 7, 2017. No public comments were received during the public comment period.

### C. Public Hearing

The Central Coast Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: December 7, 2017  
Time: 9:00 a.m.  
Location: Central Coast Water Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401

Interested persons were invited to attend the public hearing and provide testimony to the Central Coast Water Board pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

### D. Reconsideration of Waste Discharge Requirements

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be received by the State

Water Board at the following address within 30 calendar days of the Regional Water Board's action:

State Water Resources Control Board  
Office of Chief Counsel  
P.O. Box 100, 1001 I Street  
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see:  
[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/wqpetition\\_instr.shtml](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)

**E. Information and Copying**

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:00 a.m. and 5:00 p.m., Monday through Friday. Copying of documents may be arranged through the Central Coast Water Board by calling (805) 549-3147.

**F. Register of Interested Persons**

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Central Coast Water Board, reference this facility, and provide a name, address, and phone number.

**G. Additional Information**

Requests for additional information or questions regarding this order should be directed to Peter von Langen at (805) 549-3688 or [peter.vonlangen@waterboards.ca.gov](mailto:peter.vonlangen@waterboards.ca.gov) or Sheila Soderberg at (805) 542-3592 or [sheila.soderberg@waterboards.ca.gov](mailto:sheila.soderberg@waterboards.ca.gov).



**TRANSMITTED VIA EMAIL**

February 18, 2020

Ryan Moroney, Central Coast District Supervisor  
California Coastal Commission  
725 Front Street, Suite 300  
Santa Cruz, CA 95060

Subject: **Pure Water Soquel: Response to Project Opposition Comments**

Dear Ryan,

Thank you for the opportunity to respond to the Pure Water Soquel project (Project) opposition comments that you received on February 11, 2020. As we have discussed the points made arguing against the Project have largely been discussed through the CEQA lawsuit against the project. On November 15, 2019, after a hearing on the merits of the lawsuit, the Trial Court issued a 17-page Order (**Attachment 1**) denying in full the Petition for Writ of Mandate. Judgment in the District's favor was subsequently entered on November 26, 2019, denying Ms. Steinbruner's Petition and all of its claims. The District is currently seeking to recover its costs from the CEQA litigation as the prevailing party. Although Ms. Steinbruner did file a Notice of Appeal to challenge the November 15th Order, we are confident that the Court of Appeal will uphold the Trial Court's thorough and carefully reasoned Order. There are no other current, threatened, or pending litigation.

Below we have included further discussion against the comments provided in your February 11<sup>th</sup> email.

**Comment #1:** *Inadequate Project Alternatives Analysis that did not allow consideration of valid surface water transfers and possible water rights changes the District can pursue.*

Using surface water transfers between the City of Santa Cruz and Soquel Creek Water District as part of Aquifer Storage and Recovery Project was analyzed in the project EIR as an alternate that were considered but rejected from further consideration. As stated in the Judge's Order Denying for Writ of Mandate document (**Attachment 1**), the analysis of this alternative was found to be adequate under CEQA. Discussion of the Court's findings can be found in Attachment 1. To further discuss why surface water transfers with the City of Santa Cruz is not suitable alternative for Soquel Creek Water District, we can consider the following issues: water rights and timeliness of the Project, availability of surface water resources, drought and climate change resilience, and environmental impacts.

**Water Rights Issues and Timeliness:** To initiate full-scale surface water transfers to meet and replace need of constructing and implementing the Pure Water Soquel project, modification/acquisition of water rights from the San Lorenzo River is needed to expand the Places of Use (POUs) of City water rights to include Soquel Creek Water District. Water taken from the San Lorenzo River must be used by City of Santa Cruz rate payers and currently can only be stored for up to 60 days. The City of Santa Cruz is

currently in the process of evaluating potential water right modifications that would legally expand the places of use for City water rights to include the Soquel Creek Water District, Scotts Valley Water District, San Lorenzo Valley Water District and Central Water District and also to modify the flow requirements to protect fisheries. The City issued a Notice of Preparation for an EIR on the City's Surface Water Rights in October 2018 (<http://www.cityofsantacruz.com/home/showdocument?id=73445>).

The City has not yet completed the environmental analysis of this project under CEQA, nor have they approved such a project. Should the project be approved by the City in the future, the modification/acquisition of water rights would also need to be considered and approved by the State Water Resources Control Board. Based on information that the City of Santa Cruz Water Department shared at a Joint City Council and Water Commission meeting (November 11, 2019), see **Attachment 2**, the City projects that the water rights will not be modified until mid-2021. Then at the end of 2022, the City would be in a position have further evaluated water transfers with the city, determine cost and explore water coming back to them. This places the City's timeline for evaluating surface water transfers at least five years past when the Project Draft EIR was prepared and past the implementation timeline for the Project. Additionally, because the review and implementation of surface water transfers is not in the District's control, the District would be required to comply with the City's timeline. Timeliness of implementation for an alternative water supply is identified as a key priority for the Soquel Creek Water District and their rate payers.

*Thus, the delay and uncertainty in the City of Santa Cruz's ability to evaluate the feasibility of water transfers and the District's inability to drive the schedule for analysis and implementation prevent water transfers from meeting the key priority of timeliness and therefore make transfers a non-viable alternative to considered in the Project EIR.*

**Drought and Climate Change Resiliency:** Only after the City's fulfils it's legal priorities of meeting anadromous fish flow requirements for the protection of coastal resources, and meeting its own customers' demands and own storage needs, can water be transferred to Soquel Creek Water District and other neighboring agencies. This creates a limited partnership in which transfers from the City of Santa Cruz are restricted to winter wet seasons when there is an excess of surface water. Potential drought conditions would further limit the ability for the City to make transfers feasible.

The City and the District are currently in the process of completing a pilot water transfer project that started in 2015 and will be complete in December 2020. In this pilot project, the City would transfer up to 300 acre feet per year (AFY) during winter months to test the viability of transfers as well as the water quality and compatibility of different source water with the District's infrastructure. Within this short project window, the City has had to reduce and even discontinue the water transfer multiple times due to winter rain shortages. Most recently in January 2020, in order to meet their in-stream fish flow requirements and as a result of some City infrastructure issues, the City was required to reduce their transfer flow rate and even shut off the transfer entirely for one week. On February 1, 2020 the City entirely shut off all transfers to the District due to lack of precipitation. The frequency in which the City has been unable to meet the water transfer volumes for the pilot indicates that the water transfers may not be consistently available to meet the much greater 1,500 AFY that the District requires from the Project.

On November 18, 2019, Sierra Ryan (Santa Cruz County Water Resources Planner and an appointed City of Santa Cruz Water Commissioner) provide public testimony at the State Water Resources Control Board Meeting in Sacramento (**Attachment 3**) explaining that "Modeling has been done by the City to determine

whether it could provide water for its own needs and help Soquel Creek Water District with the supplemental water it needs. This was done looking at 4 different climate change scenarios and 2 different city customer water demand scenarios. Based on the results, in the best-case scenario, the City can provide Soquel Creek with all the water they need up to 55% of the time. In the worst case, they could never provide all the water. Additionally, modeling has shown that the city's proposed Aquifer Storage and Recovery project could be jeopardized if Soquel Creek does not implement their project."

While there is a public opinion that the City could operate its system differently with Loch Lomond Reservoir and that there is sufficient water to transfer to Soquel Creek Water District, Water Director Rosemary Menard refutes this claim based on the City's scientific evaluation and modeling in an Op-Ed published in the [Santa Cruz Sentinel](#) on May 27, 2019 (**Attachment 4**). In this Op-Ed Rosemary Menard states "The need to address the issue of seawater intrusion in the Santa Cruz Mid-County basin presents a significant challenge for both the Soquel Creek Water District and for the City of Santa Cruz. I'm convinced that there isn't enough surface water to reliably solve both the City's need for a drought supply and to protect groundwater resources in out part of the basin from seawater intrusion and to reliably meet Soquel's need for water to create and maintain a seawater intrusion barrier in its service area. However, as I have done on several occasions in the past, I respectfully request that McGilvray stop misrepresenting the information presented by the city or implying in any way that any analysis we have done, are doing, or will do in the future supports his position. Nothing could be further from the truth."

*Thus, because of these limitations on the availability of surface water to be transferred to the District, and the variability due to climate change, the alternative for surface water transfers also does not meet the District's key project objective of providing a resilient and reliable water supply.*

Environmental Impact. Another District priority for the project was to provide a water supply with minimal environmental impacts. The water transfer alternative would not only have similar environmental impacts through construction as the Project but would also put more stress on limited environmental in-flow stream and river flows.

The City of Santa Cruz has a commitment to maintain adequate in-stream flows for anadromous fish in the rivers and streams that they divert their water supply from. In low rainfall years, there is increased competition for the limited surface water resources to get the water needed for the City of Santa Cruz customers and to maintain adequate in-stream the flows for anadromous fish. Therefore, a commitment to transfer additional surface water to the District would put increased stress onto stream and river flows and further reduce the amount of water available for anadromous fish as well as the amount of fresh water flowing to the ocean. increased demand for surface water and the potential resulting stress on important in-stream flow requirements brought about by the water transfers alternative creates an environmental impact not found in the proposed Project.

To implement the water transfer project would also require improvements to existing infrastructure as well as new infrastructure. For example, to transfer the required 1,500 AFY to the District would require significant conveyance pipeline improvements. Additionally, improvements to the existing treatment infrastructure would likely be required to achieve the added capacity and to meet water quality standards for injection into groundwater. The water transfer pilot program has identified some water quality issues that would also need to be addressed before a full scale transfer program could be implemented. Therefore, implementation of the surface water transfer alternative would have similar construction impacts as the Project and would not present an environmentally superior alternative.

*The potential impacts to limited surface water resources and similar construction impacts does not make the water transfer alternative an environmentally superior alternative.*

**Comment #2.** *Inadequate response to critical agency comments on the Draft EIR by Ms. Rosemary Menard, City Water Director, and Mr. John Ricker, County Water Resources Director.*

As seen in in the Order Denying the Petition for Writ of Mandate (Attachment 1) in section V. on page 14 of 17, the Court found that the project EIR did adequately respond to agency comments from Ms. Rosemary Menard and Mr. John Ricker. Generally, the comments from the City and County are about project siting and potential effects on City and County infrastructure and are not regarding natural, coastal or public recreation resources.

The District continues close coordination with both the City of Santa Cruz and County of Santa Cruz for the design and implementation of the Project to make sure all infrastructure is properly coordinated. The District will also work with the City and County to procure all necessary easements and permits. Interagency coordination and partnership is a key to the success of the Project and the District will continue to work closely with the City of Santa Cruz and County of Santa Cruz.

**Comment #3.** *The current lack of an antidegradation water quality monitoring plan for the project as evidenced by the entirely missing section in the draft Antidegradation Evaluation Report. Monitoring for regulated drinking water contaminants and the few CEC indicators the state currently requires will happen, but screening and monitoring is also needed for unregulated contaminants that may be specific concerns to this project including chemical CECs, pathogens, antibiotic resistance genes and disinfection process by-products.*

The District has prepared a Draft Anti-Degradation Study. Because the PWS project uses AWWP technologies with RO, the purified water will be extremely low in salts, nutrients, and other constituents. A final Anti-Degradation Study is pending and will be submitted as part of the Project permitting with DDW and the Regional Board. It should also be noted that Ms. Steinbruner received correspondence from Harvey Packard, Supervising Engineer with the Regional Water Quality Control Board on September 29, 2019, that stated “Thank you for your comments here and at the board meeting last week. As I mentioned there, the Central Coast Water Board will evaluate the district’s finalized antidegradation analysis as part of the process to issue the permit to inject recycled water. That process is in its very early phases, as we have not even yet received a permit application.” Please see **Attachment 5**.

A water quality monitoring plan is currently being prepared as part of the Title 22 Engineering Report, that would monitor water quality within the groundwater aquifer as well as throughout the advanced water purification facility (AWPF). Screening of CECs in the source water to the AWWP is being conducted as part of the Pure Water Soquel Program and once completed, will be addressed in the AWWP design and summarized in the Title 22 Engineering Report. Monitoring requirements that will be incorporated into PWS are summarized below. Once operational, PWS will monitor for CECs via specific laboratory methods and bioanalytical screening tools per Attachment A in the State Water Resource Control Board’s “Policy for Water Quality Control for Recycled Water (Recycled Water Policy).” To monitor water quality and injected water travel times within the aquifer, a network of monitoring wells will be sited in the vicinity of each Project injection well. Additional monitoring would occur at the District’s coastal well networks, ensuring ongoing water quality monitoring of the groundwater basin and the connection to the Pacific Ocean.

Protection of public health is the primary goal of any water regulations, and DDW places stringent water quality requirements on the purified effluent and water downgradient of the percolation/discharge point. The treatment process used to achieve the required water quality standards must be validated by submitting a report for approval to the DDW or by a challenge test approved by the DDW. For injection well applications, advanced purification is required with at least three separate treatment processes. In addition, water travel times through the aquifer from injection point to the nearest production well are monitored.

In 2013, the SWRCB released the “Policy for Water Quality Control for Recycled Water (Recycled Water Policy),” which included monitoring requirements for CECs and surrogates. The Recycled Water Policy defines a surrogate as “a measurable physical or chemical property, such as chlorine residual or electrical conductivity, that can be used to measure the effectiveness of trace organic compound removal by treatment process and/or provide an indication of a treatment process failure.” The CECs that are required to be monitored for subsurface application (injection wells) are listed in Table 1.

Table 1 CECs to Be Monitored			
Constituent	Constituent Group	CEC Type	Reporting Limit (µg/L)
1,4-Dioxane	Industrial Chemical	Health	0.1
NDMA	Disinfection Byproduct	Health and Performance	0.002
n-Nitrosomorpholine	Industrial Chemical	Health	0.002
Perfluorooctane sulfonate	Consumer/Industrial Chemical	Health	0.0065
Perfluorooctanoic acid	Consumer/Industrial Chemical	Health	0.007
Sucralose	Food Additive	Performance	0.1
Sulfamethoxazole	Antibiotic	Performance	0.01

Source: Recycled Water Policy; SWRCB 2018

Water quality limits are in place to prevent introduction of excess nitrate into the receiving aquifer. For confirmation of nitrogen compounds control, a GRRP must collect two samples per week of the recycled water and analyze for total nitrogen. If the average of the two nitrogen samples exceeds 10 milligrams per liter (mg/L) of total nitrogen, corrective actions must be taken, including notification to the DDW and additional monitoring.

Regulated contaminants include potential drinking water constituents that are currently regulated by the United States Environmental Protection Agency (USEPA) and/or the state of California. The frequencies of monitoring and constituent maximums are described in 60320.212 (CCR) and summarized in Table Error! No text of specified style in document..

Table Error! No text of specified style in document.. Regulated Contaminants and Physical Characteristics Control for Recycled Water		
Constituents	Regulatory Level	Frequency of Monitoring
Inorganic chemicals	MCL (Table 64431-A)	Quarterly
Radionuclide chemicals	MCL (Table 64442, 64443)	Quarterly
Organic chemicals	MCL (Table 6444-A)	Quarterly
Disinfection byproducts	MCL (Table 64533-A)	Quarterly
Lead and copper	Action Levels	Quarterly
Secondary drinking water contaminants	SMCL (Table 64449-A, 64449-B)	Yearly
Chemicals with NLs	NL	Quarterly
Priority toxic pollutants	40 CFR Section 131.38	Quarterly
Any other chemical the DDW specifies on a case-by-case basis	To Be Determined	Quarterly

### Monitoring and Reporting Requirements

Per Section 60320.226 (CCR), at least two monitoring wells for each injection well must be installed downgradient of the GRRP. One monitoring well must be situated at least 30 days travel time upgradient of the nearest drinking well, as shown in Figure 1. This requirement is to allow the water quality of the groundwater aquifer to be analyzed before reaching production wells or the ocean. Samples must be collected from the monitoring wells on a quarterly basis and analyzed for total nitrogen, nitrite, nitrate, secondary maximum contaminant levels, priority toxic pollutants, and any other contaminants and chemical specified by the DDW.

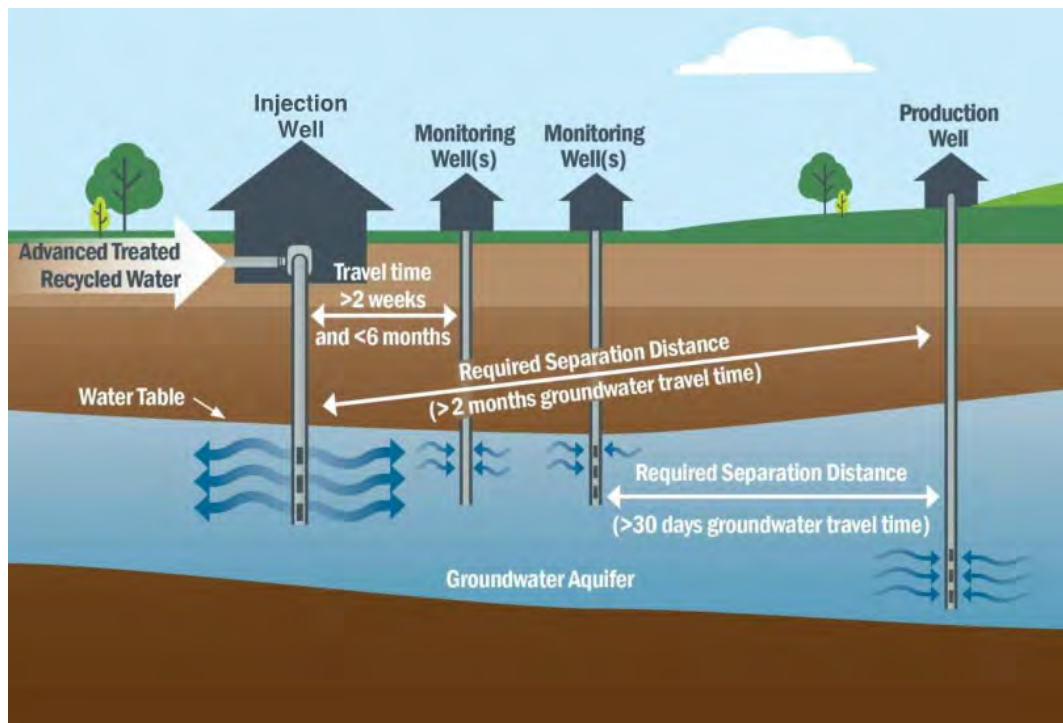




Figure 1. Required separation distance for injection wells, monitoring wells, and production wells

The general description of each unit process and its primary treatment objectives are described below.

- **Membrane filtration.** Membrane filtration encompasses low-pressure membrane processes and covers both microfiltration (MF) and ultrafiltration (UF). Functionally, MF and UF are the same, but UF membranes have smaller effective pore sizes (0.02 to 0.1 microns [ $\mu\text{m}$ ]). MF and UF are considered equivalent in performance and are acceptable in this application. Membrane filtration is effective at reducing the silt density index of water, removing particulate matter that could cause RO membrane fouling. Membrane filtration membranes require chemical cleaning to prevent clogging of the membrane pores. Membrane filtration also removes protozoa and bacteria, but virus removal is limited. Log-removal performance and membrane integrity are verified continuously and indirectly via filtered water turbidity as well as directly once daily, typically using a pressure decay test (PDT).
- **RO.** The RO membrane system will remove dissolved constituents and contaminants in the feed water, such as TOC and total dissolved solids (TDS). RO produces a residual stream (concentrate) that is commonly 10 to 25 percent of the feed stream volume. To achieve pathogen log removal credits, the RO system is designed to perform continuous indirect integrity testing via TOC and conductivity monitoring.
- **UV-AOP.** This process involves combining high-dose UV (typically greater than 850 mJ/cm<sup>2</sup>) with a chemical oxidant to produce hydroxyl radicals, which have high oxidation potential and are very effective at oxidizing trace organic contaminants and microorganisms. UV-AOP is used to oxidize trace organic contaminants including CECs and 1,4-dioxane, achieve additional inactivation of microorganisms from the product water stream, and degrade contaminants such as Nitrosodimethylamine (NDMA) through photolysis.
- **Decarbonator Systems.** UV-AOP system effluent will be followed by the decarbonator. The Decarbonator will be used to remove carbon dioxide and addition of minerals will stabilize the purified water to prevent equipment/pipe corrosion and potential leaching of metals in the soil when introduced into the aquifer

### **Proven Technology**

To add to the discussion of water quality, it is important to note that the technologies and treatment processes proposed in the Project are not new technologies; but are tried and proven technologies for water purification. There are numerous successful projects across California that implement these technologies safely with no adverse impacts to water quality, including West Basin, Orange County, Pure Water Monterey and pilots in San Diego, Santa Clara.

Please see the attached annual report for the Orange County Water District's (OCWD) Groundwater Replenishment Program for some additional information on the status and success of their project (**Attachment 6**). Additionally, a recent article published on November 8, 2019 highlights Orange County Water District's new expansion project: <https://www.ocregister.com/2019/11/08/orange-countys-pioneering-wastewater-recycling-system-embarks-on-major-expansion/>

In the Coastal Commission conversation with Mrs. Steinbruner, it was mentioned that there were issues with operation of the OCWD program. As stated in Attachment 5, there are no water quality issues with operation of the Groundwater Replenishment Program. What this could be in reference to is an issue that the program had previously involving mobilization of naturally occurring arsenic in the soil. Within



OCWD injection of the purified water was found to be mobilizing the naturally occurring arsenic, which was then showing up in the groundwater. This issue was resolved through post treatment of the water in which more lime was added to stabilize the ions and eliminate the mobilization of the arsenic. This successfully mitigated the problem. The decarborator system discussed above would provide the same post treatment in the proposed Project to mitigate any concerns of ion mobilization within the soils of the aquifer.

**Comment #4.** *Inadequate analysis of impacts and monitoring of added and/or more concentrated contaminants including CECs in the effluent flowing through the damaged outfall pipe into the Monterey Bay National Marine Sanctuary.*

Implementation of the Project would achieve the Project objective of providing environmental benefits to surface and marine waters by reducing the volume of treated effluent discharged to the Bay, and would not result in any new contaminants not already found in the existing discharge of treated effluent from the SC WWTF (as detailed further below). The Project treatment system would produce up to .56 million gallons per day (mgd) of waste residual between the microfiltration waste and RO concentrate. The microfiltration waste (along with all other waste streams except the RO concentrate) would be sent back to the SC WWTF and ran back through the facility's headworks prior to release to the ocean outfall. The RO concentrate would be piped back to the SC WWTF where it would be mixed with treated effluent prior to disposal via the existing ocean outfall. If you consider the 1.3 mgd that the Project would be diverting from the SC WWTF, there would be an overall reduction in discharge from the existing ocean outfall. Thus, the Project would not result in an effect on coastal resources and would instead reduce the overall volume of effluent discharged to the Bay.

#### **RO Concentrate**

The RO membrane system will remove dissolved constituents and contaminants in the feed water, such as TOC and total dissolved solids (TDS), which will be discharged in the concentrate stream. The RO concentrate stream will be routed to the ROC pump station wet well, and the RO concentrate will be ultimately discharged to the SC WWTF ocean outfall through the ROC pump station and pipeline. As discussed above, the RO concentrate will be comingled with the treated effluent from the SC WWTF prior to discharge from the ocean outfall. The RO concentrate would not contain any contaminants that are not already found in the existing effluent from SC WWTF and included in the existing NPDES permit for SC WWTF. Prior to operation of the Project and prior to any RO concentrate being sent to the ocean outfall, the Project will be reviewed and permitted by the Regional Water Quality Control Board (RWQCB) to be added to an update to the existing NPDES permit for the SC WWTF. As such no contamination from the Project that is sent back to the SC WWTF for discharge out of the existing ocean outfall will be allowed that could adversely impact water quality in the Monterey Bay.

Implementation of the Project would not result in any new contaminants not already found in the existing discharge of treated effluent from the SC WWTF. Mass of CEC's or other contaminants found in the waste streams produced by the Project would not elevate loading from the existing SC WWTF discharge. The Project will have about 85% efficiency of water passing through treatment to injection. With this efficiency we can assume that about 15% of source water delivered to the AWPf is sent back in the RO Concentrate. Therefore, contaminants that pass through the RO process, such as NDMA, would not have elevated concentrations in the RO Concentrate since 85% of would pass through the RO process to the UV/AOP where they would be destroyed. Such performance would lead to a reduction in contaminant loads from what would be discharged from the SC WWTF without implementation of the Project. Contaminants that are filtered out in the RO process, however, would have higher concentrations in RO Concentrate. While the concentration of the contaminant is elevated in the RO Concentrate, the overall

load (mass) would be the same as the tertiary water delivered as the source water from SC WWTF. Thus, the overall loading of any contaminant would be less than or equal to the source water and/or the secondary effluent that is already discharged from the SC WWTF. Prior to discharge from the ocean outfall, the District will conduct dilution modeling to confirm that the RO Concentrate is properly mixed with other effluent from the SC WWTF to achieve adequate dilution and comply with federal and state quality requirements. Furthermore, for most of the year, operation of the Project will decrease the overall discharge to the ocean. Generally for marine discharge systems, decreasing the flow rate tends to increase dilution. Again, modeling will check for such positive performance. Finally, prior to implementation, RWQCB would review and permit the modified Santa Cruz discharge including the RO concentrate waste stream sent directly to the ocean outfall.

It is mentioned in the comment from the project opposition that the existing ocean outfall from the SC WWTF is damaged. It is worth noting that the City of Santa Cruz has recently received order from the RWQCB to repair this outfall. This order will start the process of making any necessary repairs. However, this is a separate project and coordination between the City and the RWQCB and is not related to the proposed Project.

**Comment #5.** *Inadequate analysis of impacts of the planned construction at the wastewater plant and at the location(s) where the treatment plant bypass (directly to the outfall ) may need alteration or the impacts of all conveyance pipelines and pump stations between the treatment plant and the Chanticleer treatment plant, which include 18 stream crossings over jurisdictional waters. The EIR is devoid of any comment by Department of Fish and Wildlife nor State Regional Water Quality Control Board, and therefore mitigations may not be enforceable.*

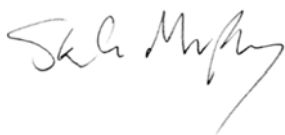
As found in the Court Order Denying the Petition for Writ of Mandate, the project EIR was circulated for public comment for the appropriate amount of time for all State agencies to provide comment. Additionally, the EIR analyzes the construction and operation of all project components, including all components within the SC WWTF at Neary Lagoon. The Court Order Denying the Petition for Writ of Mandate also found the analysis of potential project impacts from implementation of the Project were found to be adequately analyzed under CEQA. The EIR and MMRP have been certified and the District has committed to adhering to and implementing all mitigation measures put forth in those documents to make sure any impacts to jurisdictional waters and other natural resources are reduced to be less than significant.

While the EIR evaluated multiple pipeline routings, the project route that has been selected to move forward includes (8) crossings of jurisdictional waters as shown in **Attachment 7**. All proposed crossings of any water ways and jurisdictional waters would be constructed using either trenchless construction to pass under the water way, or via attachment to an existing bridge structure. There is no anticipated work within any active channels. The District is in open communication with the US Army Corps of Engineers, the RWQCB, and the California Department of Fish and Wildlife (CDFW) to procure all necessary permits for any water way crossing. The District will comply with any regulations and/or mitigations put forth in the permits from these regulatory agencies as well as the Coastal Commission.

Thank you for the opportunity to provide comments and please feel free to reach out to me with any follow-up questions you may have.

Sincerely,

SOQUEL CREEK WATER DISTRICT

A handwritten signature in black ink, appearing to read "Skyler Murphy". The signature is fluid and cursive, with the first name "Skyler" and last name "Murphy" clearly distinguishable.

**Skyler Murphy**  
Water Resources Planner  
(831) 475-8501 ext 148

Attachment 1. Order Denying the Petition for Writ of Mandate

Attachment 2. City of Santa Cruz WSAS Work Plan

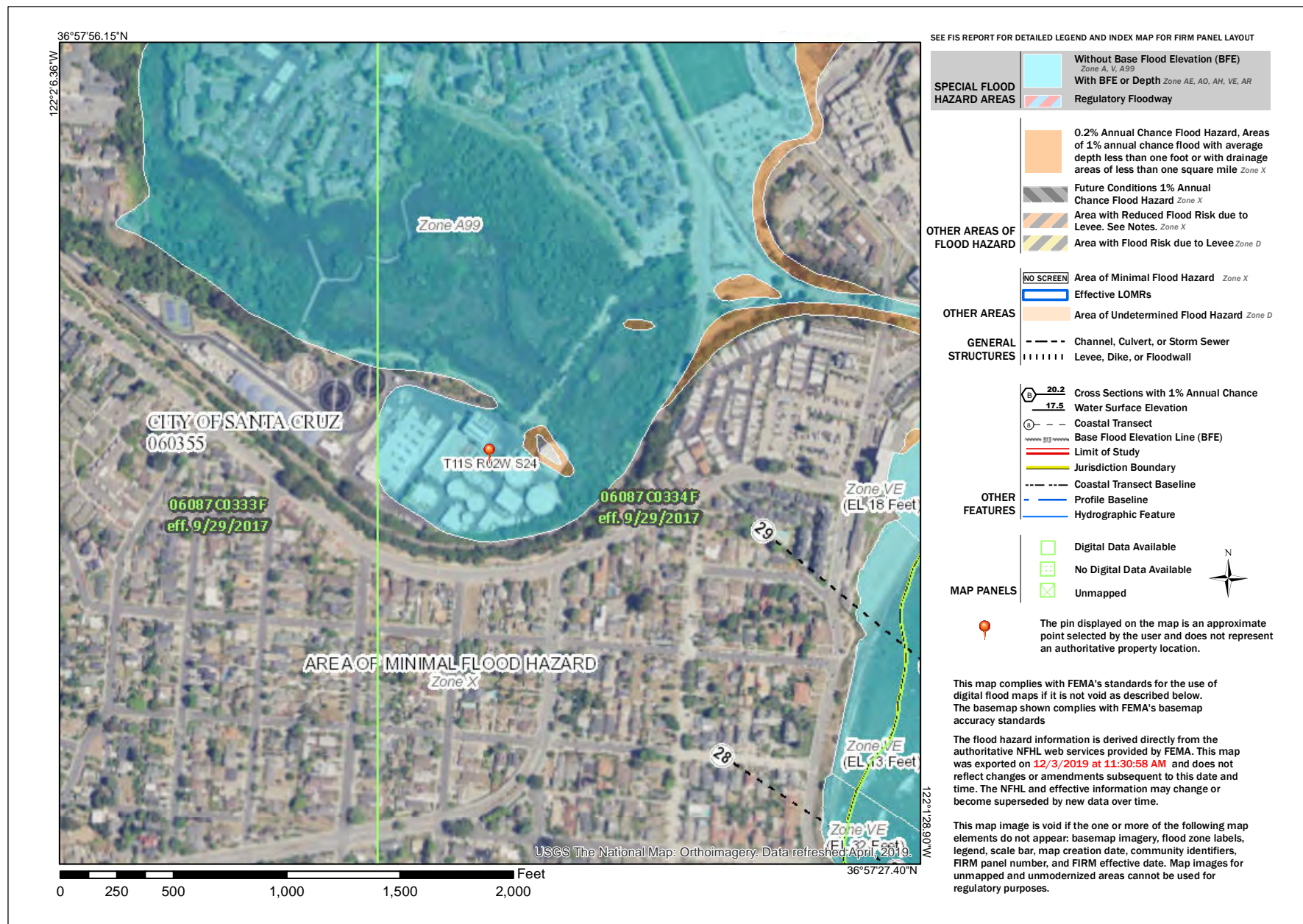
Attachment 3. Speech by Sierra Ryan to the State Water Resources Control Board (11/18/2019)

Attachment 4. Letter from Rosemary Menard Responding to Letter from Scott McGilvray

Attachment 5. Email from Harvey Packard (RWQCB) to Ms. Steinbruner on Anti-Degradation Analysis

Attachment 6. Orange County Water District Groundwater Replenishment System 2018 Annual Report

Attachment 7. Project Alignment with Crossings



SOURCE: FEMA, 2019

Pure Water Soquel: Groundwater Replenishment and Seawater Intrusion Prevention . 160164

**Figure 20**  
**FEMA Flood Map**  
**Exhibit 13**  
**3-20-0014**  
**1 of 1**





Photo A - SC WWTF perimeter wall and flood gate, as viewed from within perimeter fencing, looking northeast

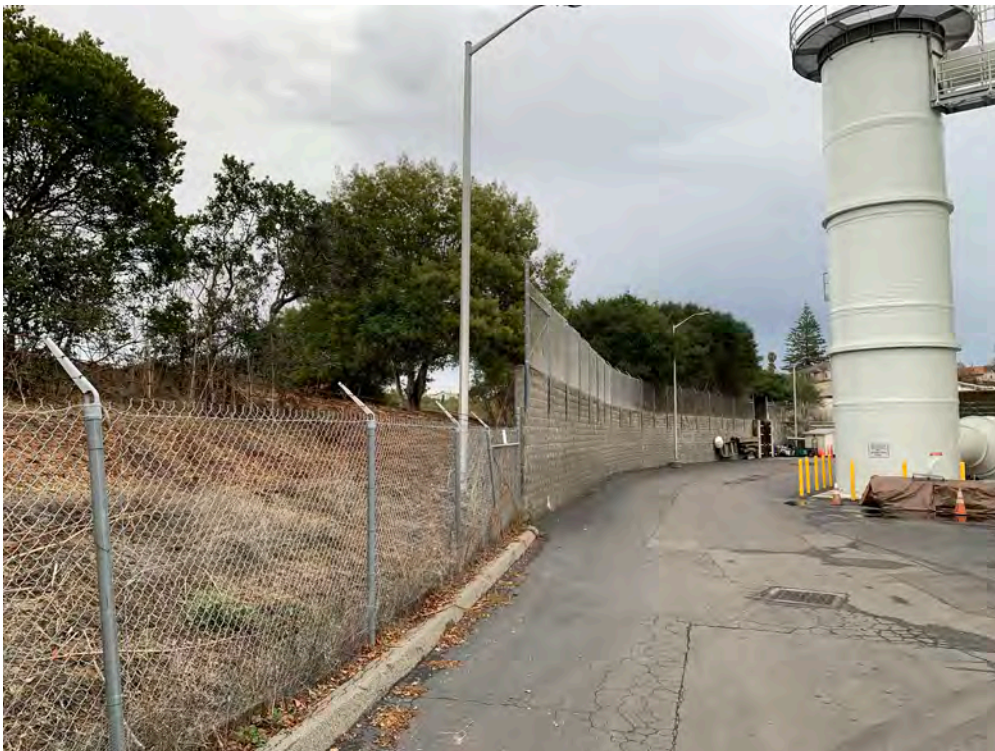


Photo B - SC WWTF perimeter wall and berm, as viewed from within perimeter fencing, looking east





Photo A - SC WWTF perimeter wall and floodgate, as viewed from Neary Lagoon Park, looking southwest



Photo B - SC WWTF floodgate, as viewed from Neary Lagoon Park, looking southwest