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January 6, 2020

California Regional Water Quality Control Board
Los Angeles Region
Attn: Mr. Raul Medina
320 W. 4th St., Suite 200
Los Angeles, CA 90013

Subject: City of Ventura, Ventura Water Reclamation Facility Comments on the December 3, 2019 Tentative Order for Order No. R4-2013-0174, National Pollutant Discharge Elimination System (NPDES) No. CA0053651, CI No. 1822

Dear Mr. Medina,

The City of San Buenaventura (City) appreciates this opportunity to submit the following comments on the Tentative Order for the Ventura Water Reclamation Facility (VWRF), issued by the Los Angeles Regional Water Quality Control Board (Regional Water Board) on December 3, 2019. The City's comments are provided in the following sections:

1. Primary Comments;
2. Comments pertaining to correct identification of monitoring stations, and proposed effluent and receiving water limitations;
3. Comments on the Monitoring and Reporting Program in Attachment E; and
4. Corrections.

1. PRIMARY COMMENTS

a. **Fact Sheet,** Section IV.C.2.b.xi on page F-31: The City requests that the last paragraph in this section be revised as follows in recognition of the following facts: the water quality/wildlife ponds were constructed in 1977 in uplands along with the wastewater treatment plant to serve as a natural component of the Ventura Water Reclamation Facility (VWRF) treatment system, providing for water quality polishing (including nutrient reduction and chlorine dissipation), as well as to provide some additional benefit for bird species. The model followed in creating this treatment system component was set by the treatment system implemented in the early- to mid-1970s by the City of Arcadia. The Fact Sheet improperly characterizes the water quality/wildlife ponds in a manner akin to a receiving water, but the Santa Clara River Estuary (SCRE) and not the water quality/wildlife ponds are the receiving water. To correct the Fact Sheet, the City requests the following revisions:

~~"Since the Facility discharges into the wildlife ponds, thence to the Estuary, it is necessary to protect the existing aquatic life and wildlife residing at these ponds. In order to ensure protection of aquatic life utilizing the ponds and aquatic life utilizing the estuary, for total ammonia, the Discharger shall comply at two points of compliance, monitoring locations EFF-001 and EFF-001A."~~
"The Facility discharges to the Estuary via constructed water quality/wildlife ponds. The ponds serve water quality polishing, storage and equalization functions, and are also utilized by birds. Currently, the water quality related function of the ponds includes allowing time for temperature and pH to stabilize and more closely match ambient conditions in the receiving water, i.e., the Santa Clara River Estuary, prior to discharge. In order to prevent water quality degradation in the ponds and ensure protection of aquatic life residing in the receiving water (estuary), the Discharger is required to demonstrate compliance with different effluent limits for Total Ammonia at two separate monitoring stations: EFF-001 and EFF-001A. The effluent limit for Total Ammonia at EFF-001 is based on the Discharger's recent historical performance and is intended to avoid potential nuisance conditions in the ponds. The effluent limit for Total Ammonia at EFF-001A is based on the applicable water quality objective, specified in the Basin Plan, and is intended to protect the designated beneficial uses of the receiving water."

b. **Tentative Order,** Section V.A.2 on page 9: This provision contains conflicting requirements regarding the receiving water. The receiving water is the Santa Clara River Estuary. Only one limitation on change of pH in the receiving water can be complied with, and the Basin Plan states that changes in pH levels in the estuary should be limited to 0.2 units or less. Therefore, this provision should be revised as follows:

> "The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged. ~~Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis.~~ At the estuary, the ambient pH levels shall not be changed by more than 0.2 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis."

c. **Tentative Order,** Section VI.C.2.a, pages 16-17 (and global revisions to the term "Transition Plan"). As background for this comment, in compliance with the Current NPDES Permit, the City conducted the Estuary Special Studies to determine whether any effluent discharge is needed to provide enhancement and sustain the Estuary's native species pursuant to, among other applicable law, the Enclosed Bays and Estuaries Policy, and if so, how much. Current NPDES Permit, Section VI.C.2.b.i, p. 16. In addition, as the City submitted the Estuary Special Studies to Wishtoyo Foundation's Ventura Coastkeeper Program ("Wishtoyo") and Heal the Bay, who convened a Technical Review Team to review, analyze and comment on the Estuary Special Studies and produced the "TRT Reports" (as defined in the City's Report of Waste Discharge ("ROWD")), which were also provided to the Regional

Board. Further, in compliance with the Regional Board's conditional approval of the Estuary Studies work plan, the City, Wishtoyo, and Heal the Bay engaged an independent scientific review panel to provide a peer review of the Estuary Special Studies and produce the "SRP Report" (as defined in the ROWD), which was also provided to the Regional Board. All of these studies reports were also provided to and analyzed by the National Marine Fisheries Service ("NMFS"), the U.S. Fish and Wildlife Services ("USFWS"), and the California Department of Fish and Wildlife ("CDFW")(collectively the "Resources Agencies") as well as other stakeholders, and the Resources Agencies commented on these reports as requested by the Regional Board in December of 2018. Based on the information and findings of these studies reports, which collectively comprise the best available scientific information regarding the need for continued discharge of tertiary treated effluent to the Estuary to sustain its native species and enhance beneficial uses, the SRP and TRT recommend that discharges to the SCRE should be reduced to an average annual closed-berm continued discharge level (collectively, CDL) of 0 to 0.5 MGD. As set forth in the current NPDES Permit Fact Sheet, the information and findings of these studies and reports are now being used by Regional Water Board staff in evaluating appropriate NPDES permit terms and conditions regarding continued discharges to include in the proposed Tentative Order. Current NPDES Permit Fact Sheet, Section III.C.10, p. F-17.

As anticipated when the Current NPDES Permit was issued, the City requested in the ROWD a compliance schedule to design, permit and construct the substantial infrastructure necessary to divert effluent to advanced water purification and potable reuse, and reduce discharges to the SCRE to an average annual closed berm CDL of 0 to 0.5 MGD (the "Infrastructure Diversion Project") for purposes of complying with the Enclosed Bays and Estuaries Policy. The Tentative Order currently provides for preparation and approval of a "Transition Plan," which is essentially the equivalent of a compliance schedule for implementation of the Infrastructure Diversion Project as anticipated and requested in the ROWD.

While there appears to be no material difference in a compliance schedule and the Transition Plan required by the Tentative Order, the City suggests that revising the text of the permit to replace the term "Transition Plan" with the term "Compliance Schedule" would prevent any uncertainty or confusion about the function of the Transition Plan in the City's efforts to implement reductions in discharge to the Estuary based on best available scientific information and in compliance with the Enclosed Bays and Estuaries Policy as well as the state and federal Endangered Species Acts. Therefore, the City renews its request to change the term "Transition Plan" to "Compliance Schedule."

d. **Tentative Order,** Section VI.C.2.a on page 16: the middle of the first paragraph refers to the "**current** permitted closed berm, average annual flow to the SCRE of 9 MGD..." (emphasis added). The City inadvertently described the **current** flow limitation in the VWRF NPDES

Permit inaccurately. In fact, the current flow limitation in the NPDES permit is monitored at monitoring location EFF-001F, and is a "**dry weather**" average annual flow limit, and **not** a "**closed berm**" limit. This distinction is important. For example, factually, while the berm is often closed during dry weather, that is not always the case, and the berm may also be closed for a period of time during wet weather, but the current discharge limitation would not apply when it is raining, even if the berm remains closed. Further, it requires a very different diversion and discharge system, including design, permitting and construction of the Diversion Infrastructure Project, including particularly the additional diversion and storage capacity components of that project as described in this provision of the Tentative Order, for the City to be able to limit discharges to the Estuary when the berm is closed, as opposed to limiting discharges to the Estuary during "dry weather." In addition, the "dry weather" flow limitation is not based on berm dynamics or protection of the SCRE, but instead is based on limitations of the wastewater treatment plant design. Based on this explanation, the City requests that the following sentence of this section be revised as follows to correct our mistake in the ROWD and to accurately reflect the current discharge limitation, and also to reflect the City's request that the term "Compliance Schedule" be substituted for Transition Plan throughout the Permit:

> "The ~~Transition Plan~~ Compliance Schedule shall include specific infrastructure design, environmental permitting, and operational steps and engineering requirements to transition from the current permitted ~~closed berm,~~ average annual effluent dry weather flow rate to the SCRE of 9 MGD, to a closed berm, average annual Phase 1A continued discharge level (CDL) to the SCRE (measured based on a water year from Oct. 1 to Sept. 30) (collectively, CDL) of 1.9 MGD."

e. **Tentative Order,** Table 4 on page 7: For Chronic Toxicity, the "% Effect" threshold for the MDEL is also being proposed as a part of the State Water Board's draft Toxicity Provisions. To accurately describe the application of the percent effect level, it should be footnoted here that this % Effect is for the survival endpoint, except for test methods that do not have a survival endpoint, in which case % Effect is for the sublethal endpoint. The City requests that a footnote be added to Table 4 that applies to the "Pass or % Effect <50" text in the "Maximum Daily" column applicable to Chronic Toxicity, as follows:

> "For methods that have both a survival endpoint and a sublethal endpoint, the % Effect applies only to the survival endpoint. For methods that have only a sublethal endpoint, the %Effect applies to that sublethal endpoint."

f. **Tentative Order**, V.A.24.d on page 11: If a downstream sample fails the chronic toxicity test, but the concurrent effluent sample passes, then the discharge did not cause toxicity in the receiving water. Because the effluent is in compliance, accelerated WET testing is not necessary, regardless of whether the upstream sample passes or fails. The reference to upstream testing can be appropriately deleted from this paragraph because instructions for evaluating upstream toxicity results are already described in the preceding permit

provision (V.A.24.c). Therefore, to improve clarity and ensure proper implementation of these two related provisions, the City requests that Section V.A.24.d be revised as follows:

> "If the chronic toxicity median monthly threshold of the receiving water at ~~both upstream and~~ the downstream stations is not met, but the effluent chronic toxicity median monthly effluent limitation was met, then accelerated monitoring need not be implemented."

g. **Tentative Order**, Section VII.A on page 26: Although the City acknowledges and understands that the permit text cannot change the proper role and application of Porter-Cologne statutory provisions and the statewide Enforcement Policy, the language in this section of the Tentative Order appears to improperly bypass the application of these legal provisions to the Regional Water Board's consideration of monitoring data and determination of a violation. The City requests that this provision be revised as follows:

> "For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Permittee shall be ~~deemed~~ determined out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL) and as set forth in Cal. Water Code Section 13385 and the California Enforcement Policy (2019)."

h. **Monitoring and Reporting Program, Attachment E (MRP),** Section V.A.4 on page E-12: The City requests that the last sentence in this section be amended by adding the following language to reflect the proper role of the 3-species screening protocol vis-à-vis a determination of exceedance, consistent with "Violation Reporting" requirements in the Draft Toxicity Provisions at IV.B.2.i on page 29:

> "In the case where an MDEL or MMEL is exceeded for more than one species during species sensitivity screening and rescreening, only those toxicity tests of the most sensitive species at the IWC shall be used for determining compliance with the toxicity MDEL or MMEL."

i. **MRP,** Section V.A.7 on page E-14: The City requests that the provisions of this section regarding accelerated monitoring should be modified to limit the accelerated monitoring procedure to a maximum of three independent toxicity tests (consisting of the initial test and a maximum of two MMEL compliance tests) conducted within the same calendar month, consistent with the City's understanding of the proper operation of these provisions based on review and participation in the stakeholder workshops conducted by the State and Regional Water Board for the Draft Toxicity Provisions. Incorporating these provisions in the City's renewed permit will conform the text to the City's understanding of the proper methods, protocols and procedures that should be followed in conducting toxicity tests, and preparing and implementing the TRE work plan. The suggested revisions indicate the City's planned methods, protocols and procedures for compliance with the proposed permit and the soon-to-be adopted Toxicity Provisions, unless the Regional Water Board directs the

City in writing to revise its planned compliance approach. The requested text changes will streamline the process of determining the need to conduct a TRE and will avoid unnecessary and resource-intensive additional toxicity testing when the VWRF effluent is in compliance. The City recognizes that the requirement to implement the TRE protocol based on up to three samples within a single month as suggested by the requested text changes can be onerous, but believes that certainty in testing instructions for monitoring staff and the reduction in the total number of tests that must be performed overall are important for the City to attain maximum and efficient compliance with the new chronic toxicity requirements. Accordingly, the City requests that section V.A.7 on page E-14 of the MRP should be revised to incorporate provisions consistent with the Draft Toxicity Provisions as follows:

> "When there is discharge on more than one day in a calendar month, the Median Monthly summary result shall be used to determine if accelerated testing needs to be conducted. When there is discharge on only one day in a calendar month, the Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.
>
> Once the Permittee becomes aware of this result, the Permittee shall implement an accelerated monitoring schedule within five calendar days of the receipt of the results. However, if the sample is contracted out to a commercial laboratory, the Permittee shall ensure that the first of ~~four~~ two accelerated monitoring tests is initiated within seven calendar days of the Permittee becoming aware of the result. The accelerated monitoring schedule shall consist of ~~four~~ two independent toxicity tests (including IWC), ~~conducted at approximately two-week intervals,~~ initiated within the same calendar month ~~over an eight-week period~~; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in "Pass", the Permittee shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Permittee shall immediately implement the TRE Process conditions set forth below."

j. **MRP,** Section V.A.8.a on page E-14: The City's toxicity laboratory (Pacific EcoRisk in Fairfield, CA) notified the City that fifteen days is an insufficient amount of time to conduct a thorough facility performance evaluation, perform the initial data evaluation, and then prepare the Detailed TRE Work Plan to fulfill information requirements that include actions to correct the causes of toxicity and actions to mitigate the effects of the discharge. The City requests that this requirement be modified to allow **thirty days** for submittal of the Detailed TRE Work Plan.

k. **MRP,** Footnote 20 on page E-18: This footnote should be modified to require receiving water chronic toxicity monitoring at RSW-005 (upstream station) and RSW-004 because, as Table E-1 on page E-5 makes clear, RSW-004 is the receiving water monitoring station located "immediately downstream of the discharge". This revision is important because

samples collected at RSW-003 and RSW-002 are likely to be influenced by sources of toxicity not related to the VWRF discharge, and RSW-002 is on the opposite side of the estuary from the VWRF discharge. Moreover, the footnote should be modified to clarify that only samples from one upstream (RSW-005) and one downstream (RSW-004) receiving water station must be tested for chronic toxicity.

l. **MRP,** Footnote 20 on page E-18: This footnote refers to "section V" for chronic toxicity monitoring requirements in receiving water, whereas species sensitivity screening procedures described in section V are not relevant to receiving water monitoring. The City requests that this footnote be modified to clarify that the species sensitivity screening element of section V does not apply to receiving water chronic toxicity monitoring.

2. COMMENTS ON MONITORING STATIONS AND PROPOSED EFFLUENT AND RECEIVING WATER LIMITATIONS

a. **Tentative Order,** page 1, the latitude and longitude of Discharge Point 001 locate the discharge at the VWRF entrance gate. The City requests that coordinates be revised to reflect the actual Discharge Point 001 location as follows:

"Latitude: ~~34.23977~~ 34.23937° Longitude: ~~-119.26020~~ -119.25870°"

b. **Tentative Order,** Table 4 on pages 6 and 7: The current permit contains a provision in the Fact Sheet that precludes an exceedance of the nitrate-N limit from being double-counted as an exceedance of the nitrate+nitrite-N limit. The City understands that this approach will continue to be employed, and therefore requests that a footnote be added to these limits to retain language from the current permit as follows:

> "The effluent limitation for nitrate+nitrite as N in concentration shall not apply when the concentration limitation for nitrate as nitrogen or nitrite as nitrogen is exceeded. The effluent limitation in mass load shall not apply when the mass load limitation for nitrate as nitrogen or nitrite as nitrogen is exceeded."

c. **Tentative Order,** Section V.A, pages 8 to 11: The City notes, and, in complying with the draft permit once adopted, intends to rely in determining its compliance with receiving water limitations on the statement in the Fact Sheet at IV.C.2.b.xvi on page F-39, which provides: compliance with effluent limits for nutrients demonstrates that the VWRF discharge does not cause or contribute to exceedances of receiving water limits, specifically those narrative limits at V.A.3, V.A.10, V.A.11, V.A.18, V.A.21 and V.A.22.

d. **Attachment B,** page B-1: the flow monitoring location (EFF-001F) is not identified. Included with this comment letter is a revised map with the location of EFF-001F identified for the Regional Water Board's use in Attachment B of the Tentative Order.

e. **MRP,** Table E-1 on page E-5: The "Monitoring Location Description" for EFF-001F is incorrect and should be revised as follows:

"Effluent Monitoring Station: At the ~~Parshall flume~~ flow meter located downstream from EFF-001 and is used for flow measurement only.

Latitude: 34.23981~~677~~°, Longitude: -119.260755~~946~~° (Previously designated as M-001F)"

f. **Fact Sheet,** Section II.B.1 on page F-5: The coordinates used to describe the location of Discharge Point EFF-001 place the discharge at the City of Simi Valley Water Quality Control Plant. The City requests that the coordinates be corrected as follows:

Latitude: 34.2393728200°, Longitude: -119.25870~~-118.81290~~°

3. COMMENTS ON THE MONITORING AND REPORTING PROGRAM

a. **MRP,** Section I on page E-4: The Monitoring and Reporting Program should clarify that "spikes" (excursions) on continuous monitoring equipment that are due to routine equipment maintenance (calibration, cleaning) are not considered violations of permit limits. The City requests that an additional subsection "P" be added to clarify this exception as follows:

"Temporarily elevated monitoring results associated with routine maintenance or a malfunction of continuous monitoring equipment shall not be considered a permit violation."

b. **MRP,** In Table E-3 on page E-8, the required monitoring frequency for Enterococcus in final effluent is daily. The City requests that this requirement be reduced to the weekly monitoring frequency that is in the current permit for the following reasons:

1. Under the current permit (January 1, 2014 through March 31, 2018), 253 weekly samples of effluent were analyzed for enterococci, with only 7 "detected" results (less than 3% of samples analyzed).
2. Of the 7 detected results, the highest detected result was 4 MPN/100 mL.
3. There were no exceedances of the 104 MPN/100 mL TMDL single sample maximum numeric target in over 4 years.
4. The maximum rolling 6-week geometric mean result was 1.6 MPN/100 mL, whereas the TMDL numeric target is 35 MPN/100 mL.

There is no reasonable justification for increasing the monitoring frequency from weekly to daily, as enterococcus results in final effluent are historically not detected or well below TMDL numeric targets.

c. **MRP,** Footnote 9 on page E-8 states that samples for microbiological parameters "shall be collected at monitoring location EFF-001." Section IV.C.2.xii(a)(3) on page F-37 of the Fact Sheet appropriately identifies the current sampling location for chlorine as "immediately following disinfection", which is located at the end of the chlorine contact chamber in compliance with appropriate microbiological testing protocols. Samples collected downstream of the chlorine contact chamber will not measure the effectiveness of the disinfection process and are not representative of the disinfection system.

Accordingly, the City requests that footnote 9 on page E-8 be revised to state that samples for microbiological parameters:

> "shall be collected at ~~monitoring location~~ the end of the chlorine contact chamber, adjacent to EFF-001."

This text change will allow continued collection of samples in accordance with proper testing protocols designed to demonstrate the effectiveness of the disinfection system and compliance with effluent limits for bacteria.

d. **MRP,** Table E-3 on page E-9 and Table E-5 on page E-18: The City requests that the effluent and receiving water monitoring frequency for Selenium be reduced from quarterly to semiannually. There is no reasonable potential or permit limits for Selenium, so to be consistent with influent monitoring requirements, the monitoring for this parameter should be included with the other semiannual priority pollutants.

e. **MRP,** Table E-3 on page E-10 and Table E-5 on page E-18: analysis of Perchlorate, 1,4-Dioxane and 1,2,3-Trichloropropane is required semiannually and annually for effluent and receiving water, respectively. However, the City has collected semiannual final effluent data for these three pollutants for at least 4 years, with all results reported as "Not Detected" (ND). Because reasonable potential for the pollutants has not been established and effluent monitoring data are ND, the City requests that monitoring for these constituents be removed from Table E-3 and Table E-5, or that the monitoring frequency for final effluent and receiving water be reduced to once per permit term.

f. **MRP,** Table E-3 on page E-10: the Sample Type specified for "Remaining Priority Pollutants" is incorrect. The Sample Type should be revised to be consistent with requirements for priority pollutants at INF-001:

> "~~grab/~~24-hour composite/grab for VOC, Cyanide, and Chromium VI"

g. **MRP,** Item IV.B.2 on page E-10: the chlorine residual monitoring location referred to as "at the current location" should be revised to specify "at EFF-001" because as worded, the provision incorrectly conveys that monitoring results from some location other than EFF-001 triggers additional grab samples, which is inaccurate.

h. **MRP,** VIII.A.1 on page E-17: This provision requires the City to monitor flow at each receiving water station "if surface water is moving." The City requests that this requirement to measure flow at each receiving water station be deleted because water within the estuary is always moving in some manner, even though surface water in the SCRE does not measurably "flow" unless the berm is open, in which case flow monitors cannot feasibly provide flow data because the high flow velocities during open berm conditions sweep away monitoring devices.

i. **MRP,** Item VIII.A.1 on page E-17: Footnote 19 to Table E-5 states that algal biomass (Chlorophyll a) samples "shall be collected by obtaining scrapings from the substrate." Table E-5 requires that Chlorophyll a result must be reported in units of mg/L. The City

requests that this footnote be revised to propose sampling and analytical methods that allow the City to obtain Chlorophyll a result as a concentration in mg/L, which is not possible from implementation of the methods described, which rely on collection of algal biomass from solid samples of algae.

j. **MRP,** VIII.A.2 on page E-18 and E-19: the permit should acknowledge that there are times during the nesting season that receiving water sites cannot be legally accessed by the City in compliance with state and federal Endangered Species Acts without disturbing or destroying nests of listed species. This provision should be revised to add the following language:

> "Sampling may be rescheduled at receiving water stations if weather and/or flow conditions would endanger personnel collecting receiving water samples~~.~~, or if accessing monitoring sites would adversely impact species listed for protection under the state or federal Endangered Species Acts."

k. **MRP,** Section VIII.B.1, Table E-6, and Section VIII.B.2 on page E-19: These provisions address visual observations and visual monitoring. The City currently has no methods or means for making accurate quantitative observations or recordings of the information requested. Therefore, to accurately reflect the types of data to be collected under these provisions of the Tentative Order, the City requests that the text that inaccurately refers to the visual observation requirements as requirements to "quantify" volume, depth, and area be removed for all parameters listed in the table, and instead, the text should indicate that the City will record its observations and will "estimate" volume, depth and area. The following text revisions are requested:

> V.III.B.1: "The Discharger shall ~~make~~ estimate quantitative water and habitat ~~appearance descriptions~~ characteristics identified in Table E-6 at RSW-001, RSW-002, RSW-003, RSW-004 and RSW-005 ~~as follows.~~ and maintain a log thereof."
>
> VIII.B.2: "At the time of sampling, the following additional qualitative and quantitative observations (estimates) shall be made..."

l. **MRP,** Table E-6 on page E-19, and Sections VIII.B.2.h, m, n, and o on page E-19: These requirements all impose an obligation on the City to make observations and estimates of habitat types, habitat conditions, and presence of aquatic and terrestrial wildlife. These same conditions are to be monitored pursuant to applicable protocol survey methods and more stringent measurement protocols pursuant to the Pre-Construction Monitoring and Assessment Program, which the City is ordered in the draft permit to prepare in coordination with the Resources Agencies, Wishtoyo and Heal the Bay, and must submit to the Regional Water Board within 180 days of the effective date of the proposed permit, and is subject to approval of the Executive Officer. Coordination of these monitoring activities with the Resources Agencies is legally required because conducting more intensive and accurate data collection efforts with respect to species listed under the state and federal

Endangered Species Acts pursuant to the Pre-Construction Monitoring and Assessment Program once approved will require authorizations from the Resources Agencies.

Because the Pre-Construction Monitoring and Assessment Program will provide for more accurate collection and characterization of data related to these habitat and species related conditions pursuant to the recommendations of the Resources Agencies than collecting, estimating and performing visual observations under these provisions of the MRP, and given that the collection of data under the NPDES permit and the Pre-Construction Assessment Monitoring Program once approved is inefficient and creates a risk of inconsistency in results reported under the two different programs, the City requests that a footnote be added to this provision to state:

> "Upon approval of the Pre-Construction Monitoring and Assessment Program by the Executive Officer, the monitoring and reporting requirements for habitat and fish seining in Table E-6, and for the parameters set forth in subsections h, m, n, and o of MRP Section VIII.B, shall be superseded and replaced by monitoring and reporting requirements of the approved Pre-Construction Monitoring and Assessment Program."

In addition to eliminating the risk of duplicative, but inconsistent monitoring results, this approach creates monitoring and cost efficiency for the City, which is important because the City already must assume significant costs to prepare and implement the Pre-Construction Monitoring and Assessment Program.

m. **MRP**, Section VIII.B.2 on page E-19, requirement "l": In light of complex federal case law as to when camping is legal v. illegal, field personnel cannot make an assessment as to whether camping is legal or illegal, and the City may not have legal authority under case law to enforce City ordinances regarding camping. The City must therefore report evidence of homeless encampments to comply with this visual assessment requirement, and will be unable to report whether those encampments are legal or illegal.

n. **MRP**, Section VIII.C and Table E-7on page E-20 and E-21: The City requests a footnote to this Section recognizing that the sediment and benthic community monitoring requirements set forth in this section shall be integrated into the Pre-Construction Monitoring and Assessment Program required to be prepared by the City in coordination with Wishtoyo, Heal the Bay and the Resources Agencies, and submitted to the Executive Officer for approval, and, upon its approval by the Executive Officer as set forth in the Tentative Order, the monitoring requirements set forth in Section VIII.C. shall be superseded and replaced by the monitoring requirements of the approved Pre-Construction Assessment and Monitoring Program. Pursuant to the December 2018 letter of the California Department of Fish and Wildlife submitted to the Regional Water Board, the Pre-Construction Monitoring and Assessment Program must address the monitoring parameters set forth in Section VIII.C and Table E-7. Monitoring and reporting results for these parameters separately under the NPDES permit and the Pre-Construction Monitoring

and Assessment Program is inefficient, and is likely to result in additional costs for the City (which is already going to be responsible for very significant costs to prepare and implement the Pre-construction Monitoring and Assessment Program). Therefore, the City requests the addition of the following footnote to Section VIII.C:

> "Upon approval of the Pre-Construction Monitoring and Assessment Program by the Executive Officer, the monitoring and reporting requirements of this Section VIII.C, including, without limitation, those of Table E-7, shall be superseded and replaced by monitoring and reporting requirements of the approved Pre-Construction Monitoring and Assessment Program."

o. **MRP, Section** IX.A on page E-21 requires the City to participate in the Regional Watershed-Wide Monitoring Program for the Santa Clara River Watershed (SCRWMP). To accurately reflect the City's requirements under, and contribution to the SCRWMP, the City requests that the first sentence in the second paragraph be revised to reflect that the monitoring and reporting required under the Pre-Construction Monitoring and Assessment Program, including sediment and benthic community monitoring conducted pursuant to Section VIII.C **constitute** the City's implementation of the Watershed-Wide Monitoring Program for the SCRWMP. Without these revisions, the provision sounds like it imposes supplemental, but completely undefined monitoring and reporting obligations, which is inaccurate, and inconsistent with regulations governing requirements governing specificity of permit provisions and conditions. The following text revisions accurately describe the City's contribution to SCRWMP and the manner in which the City intends to continue to comply with SCRWMP requirements:

> "The SCRWMP requires that t~~T~~o achieve the monitoring goals ~~of the Watershed-wide Monitoring Program~~ set forth in this section, ~~the Discharger~~ dischargers within the plan area shall undertake the responsibilities delineated under ~~an~~ the ~~approved~~ watershed-wide monitoring plan developed for ~~in the~~ implementation of the Watershed-wide Monitoring Program for the Santa Clara River, which was approved by the Regional Water Board on July 3, 2012. The Permittee shall participate in efforts to implement the ~~plan~~ approved SCRWMP within the permit cycle. by complying with the monitoring and reporting for sediment and benthic communities as required by Section VIII.C., as those requirements will be replaced and superseded by the Pre-Construction Monitoring and Assessment Program upon approval of that program by the Executive Officer.
>
> The Permittee's compliance with Section VIII.C monitoring and reporting requirements, including preparation and implementation of the Pre-Construction Monitoring and Assessment Program for sediment and benthic communities as required by Section VIII.C, will satisfy the requirements of the SCRWMP, including the requirements of the SCRWMP set forth in this Section. The SCRWMP requires that dischargers shall, in coordination with interested stakeholders in the Santa Clara River Watershed, ~~the Discharger shall~~ conduct instream bioassessment

monitoring once a year, during the spring/summer period (unless an alternate sampling period is approved by the Executive Officer)..."

4. CORRECTIONS

a. **Tentative Order,** V.A.25 on page 11: the sentence should end with "result." (i.e., "... then the calculated objective shall be compared to the receiving water sample result.")

b. **Tentative Order,** Section VI.C.2.a on page 16, Section IX.A.d on page E-22, and Section III.C.10 on page F-19: the California Department of Fish and Wildlife is incorrectly identified as the California Department of "Fish and Game".

c. **Attachment A,** page A-3: The Method Detection Limit (MDL) definition in this section is no longer accurate or valid – the MDL procedure and definition were updated with EPA's 2017 Methods Update Rule (MUR) that modified the procedure and definition at 40 CFR Part 136, Appendix B. The MDL definition in this section should therefore be updated to reflect the current regulatory definition as follows:

> "MDL is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

The current EPA definition can be accessed at the following location: 40 CFR Part 136 Appendix B MDL.

d. **Attachment A,** page A-3: the definition for Monthly Median Effluent Limitation (MMEL), used to express WET limits in the permit, is missing and should be added. The following text, as provided in the Glossary section of the Draft Toxicity Provisions, is suggested:

> "**Median Monthly Effluent Limitation (MMEL)**
> For the purposes of chronic aquatic toxicity, MMEL is an effluent limitation based on a maximum of three independent toxicity tests, analyzed using the TST."

e. **MRP,** Section I.A on page E-2: the last sentence should be revised for clarity to read, "Results of monthly, quarterly, semiannual, and annual analyses shall be reported ~~as~~ by the due date specified in Table E-8 of the MRP."

f. **MRP,** Item I.H on page E-3: The first sentence should be revised by deleting "USEPA", because many USEPA-approved methods are not authored by USEPA (e.g., those from *Standard Methods for the Examination of Water and Wastewater*), and because the State and/or Regional Water Boards may require some methods that are not approved by USEPA.

g. **MRP,** In Table E-3, footnote 10, on page E-9: The footnote should cross reference not only section V of the Tentative Order which addresses toxicity monitoring, but also Section VII.J of the Tentative Order, which also addresses toxicity monitoring requirements and provides additional instructions and information regarding testing protocols.

h. **MRP,** Item V.A.2 on page E-11: the last sentence should be revised to read, "No more than 36 hours shall elapse ~~before~~ between the conclusion of sample collection and test initiation."

i. **MRP,** Footnote 23 on page E-18 should be revised to be consistent with footnote 3 on page E-7 (i.e., the same reference should be cited in both locations for the list of priority pollutants).

j. **MRP,** Section X.D.2 and X.D.3 on page E-25: the references to section X.C and X.C.7 appear to be incorrect, as SMR reporting requirements are described in section X.B.7.

k. **Attachment I – Pretreatment Reporting Requirements,** Section B.1: The City requests that this provision be revised to remove the reference to the Hyperion Treatment Plant, as follows:

> "In accordance with 40 CFR section 122.44(j)(2)(ii), the POTW shall provide a written technical evaluation of the need to revise local limits under 40 CFR section 403.5(c)(1) within 180 days of issuance or reissuance of the ~~Hyperion Treatment Plant~~ Facility's NPDES permit.

The City appreciates Regional Water Board staff's time and effort toward crafting a NPDES permit that is aligned with the City's goals of protecting the health of City residents and the environment, supports the City's commitment toward long-term water resources planning, and recognizes the collaborative and coordinated efforts the City is making with the Resources Agencies, Wishtoyo and Heal the Bay to divert VWRF discharges to water reclamation uses while improving the ecology of the Santa Clara River Estuary, including protection of the listed species and critical habitats within the estuary.

Please contact me at (805) 677-4131 or gdorrington@cityofventura.ca.gov if you have any questions or if you need more information to process the City's ROWD package.

Respectfully,

Gina Dorrington,
Ventura Water, Assistant General Manager - Operations
City of Ventura

cc: Jason Weiner, General Counsel, Water Initiative Director, Wishtoyo Foundation & Ventura Coastkeeper

Tevin Schmitt, Watershed Scientist, Wishtoyo Foundation & Ventura Coastkeeper

Annelisa Moe, Water Quality Scientist, Heal the Bay

Brittany Struck, NOAA Fisheries

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Brooke Sheridan, State Parks Channel Coast District

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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

January 6, 2020

Mr. Raul Medina
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013
raul.medina@waterboards.ca.gov

Subject: Comments on the Proposed Reissuance of Waste Discharge Requirements (NPDES # CA0053651), City of Ventura (Ventura Water Reclamation Facility)

Dear Mr. Medina:

The California Department of Fish and Wildlife (CDFW) is providing this letter in response to the proposed reissuance of the National Pollutant Discharge Elimination System (NPDES) permit for the City of Ventura's (City) proposed WaterPure Project and associated changes to effluent discharge from the Ventura Water Reclamation Facility (VWRF) into the Santa Clara River Estuary (SCRE).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [(Fish & G. Code §§ 711.7, subd. (a) & 1802; Pub. Resources Code § 21070; CEQA Guidelines § 15386, subd. (a)]). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species including wetlands and estuarine habitat (Fish & G. Code § 1802).

SCRE provides open water, sand dune, nearshore, riparian, mudflat, and other habitats that support a number of sensitive species throughout their life cycles, including the tidewater goby (*Eucclogobius newberryi*), Southern California steelhead trout (*Oncorhynchus mykiss*), California least tern (*Sterna antillarum browni*), and western snowy plover (*Charadrius nivosus*) (CDFW 2019). SCRE is a core resource area strategically located along the coast that provides food, shelter, stopover, and safety for wildlife. The protection and preservation of the SCRE for the above-named species remains a high priority for CDFW. CDFW agrees that the reductions to the effluent discharge into the SCRE has the potential to significantly improve the long-term viability of many sensitive species and habitat communities of the SCRE. The following comments are based on our independent review of the information provided by the City, including, but not limited to, the "City's Estuary Studies", 2019 Ventura Water Supply Projects Draft Environmental Impact Report SCH No.

2017111004 (DEIR), and 2019 Ventura Water Supply Projects Final EIR SCH No. 2017111004 (FEIR).

Comment #1: Water Quality Standards

CDFW requests that additional sampling is required to ensure stabilization or improvement of endangered fish species. CDFW recommends Los Angeles Regional Water Quality Control Board (LARWQCB) review the mitigation measures under Comment #7 in our previous DEIR comment letter to the City (Attachment A).

Recommended Condition #1-1: In addition to reviewing the DEIR, CDFW recommends the fish species count with sieve net (Table E-6 of the draft NPDES permit) be conducted quarterly instead of annually and have reports provided to CDFW. To understand potential impacts for future reductions, CDFW recommends temperature be recorded daily through a CDFW approved sampling plan. Daily temperature monitoring is required to ensure enough data is collected to establish appropriate conditions for future reductions and to understand the existing conditions for fish species. CDFW also recommends the continuous deployment of four or five datasondes strategically placed within the SCRE to determine hourly, real-time, short-term, long-term, and seasonal variation of water conditions within the estuary, water levels, temperature, salinity, pH, and dissolved oxygen.

Comment #2: 1.9 MGD is the best conservative estimate

The current effluent discharges into the estuary provide supplemental waters in an anthropogenically altered watershed that support the open water habitat and habitat diversity. These discharges may also assist in building species' resilience to climate change. According to Sloat and Osterback (2013), "fish acclimated at higher temperatures have greater thermal resistance to elevated temperatures (e.g., Lee and Rinne 1978; Currie et al. 1998; Myrick and Cech 2000) (Page 70). CDFW emphasizes 1.9 MGD as a minimum average discharge to account for the stressors that are further expected to increase with climate change, as human demand for water increases (Crozier et al. 2019). Moyle et al. (2017) references Williams et al. (2016) to further assert that "climate change impacts on salmonids are increasing over time, suggesting that building resilience in remaining populations will be essential for persistence of steelhead in Southern California. Without resilience of population size, habitat diversity and quantity, and genetic variation, climate change will reduce long-term viability of [Distinct Population Segments] (NMFS 2016)" (Pg. 348, Moyle et al. 2017).

There is a level of uncertainty with the amount of dilution of nutrient concentrations associated with the current 4.7 MGD treated effluent discharges into the estuary despite the conclusions of the Phase III Study report indicating that the VWRF discharge is benefiting (i.e., diluting) the nutrient loading to the SCRE (TRT 2018). The Stillwater Report (Stillwater, 2018) recommends 1.9 MGD for the Enhancement Discharge Levels, CDL, and Maximum Ecologically Protective Diversion Volume (MEPDV). The 1.9 MGD minimum average effluent discharge would include sufficient

contingency to account for the level of uncertainty described in the City's Estuary Studies, Stillwater (2018) report, and unforeseen factors. CDFW believes this flow represents a conservative best estimate to maintain ecological functions, minimize reduction of surface water and habitat for wildlife, and monitor changes to habitat and species in SCRE. CDFW is requests that LARWQCB review the mitigation measures under Comment #1 in our previous DEIR comment letter to the City (Attachment A).

Recommended Condition #2-1: In addition to reviewing the DEIR, CDFW recommends that the permit focus on the reissuance of the NPDES permit for current and proposed discharges related to a 1.9 MGD reduction. CDFW appreciates the efforts included in the draft NPDES Permit regarding details for a Transition Plan to describe infrastructure designs, permitting, monitoring, studies, consultation, public outreach activities, schedules, and a Post-Construction Monitoring, Assessment, and Adaptive Management Plan (MAAMP) sufficient to implement further discharge reductions to the levels determined by completed Special Studies and scientific peer reviews to provide enhancement of estuary beneficial uses. Any further wastewater discharge reductions should be discussed in a future NPDES permit once this renewed permit expires.

Comment #3 California Least Tern

CDFW is requests that LARWQCB review the recommended mitigation measures under Comment #3 in our previous FEIR comment letter to the City (Attachment B).

Comment #4 Water Code 1211

CDFW agrees with the draft NPDES permit's assertion that a water rights 1211 application will be necessary to proceed with a 1.9 MGD wastewater discharge during closed-mouth, dry-weather conditions into the estuary in 2025. According to the NPDES permit, "[t]he City has been operating its recycled water program under Water Reclamation Requirements (WRR) Order No. 87-45 and, in February 2015, the City filed Wastewater Petition WW0083 with the State Water Board pursuant to California Water Code Section 1211" (Pg. F-22). CDFW will provide additional recommendations during the Water Code section 1211 petition for the wastewater change process.

CONCLUSION

CDFW appreciates the opportunity to comment on the draft NPDES permit. For any questions regarding this letter and further coordination on these issues, please contact Mary Ngo at (562) 342-2140 and Mary.Ngo@wildlife.ca.gov.

Sincerely,

Erinn Wilson
Environmental Program Manager I

ec: CDFW

Dolores Duarte, Executive Secretary (San Diego)
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REFERENCES

CDFW. 2019. California Natural Diversity Data Base (CNDDB). Available at: https://www.wildlife.ca.gov/data/cnddb

Crozier LG, McClure MM, Beechie T, Bograd SJ, Boughton DA, Carr M, et al. 2019 Climate vulnerability assessment for Pacific salmon and steelhead in the California Current Large Marine Ecosystem. PLoS ONE 14(7): e0217711. Available at: https://journals.plos.org/plosone/article/file?type=printable&id=10.1371/journal.pone.0217711

Moyle, Peter & Lusardi, Robert & Samuel, Patrick & Katz, Jacob. 2017. State of the Salmonids: Status of California's Emblematic Fishes 2017. 10.13140/RG.2.2.24893.97761.

Santa Clara River Estuary SCRE Scientific Review Panel- Revell, D., S. Kramer, and E.Stein. (SRP) 2018. Technical Memorandum on SRP Recommendations – FINAL. Available at: https://www.cityofventura.ca.gov/DocumentCenter/View/13035/2018-June-Scientific-Review-Panel-SRP-Final-Recommendations-

Sloat, M.R. and A.M. Osterback. 2013. Maximum stream temperature,and the occurrence, abundance, and behavior of steelhead trout (*Oncorhynchus* mykiss) in a southern California stream. Can. J. Fish Aquati. CI. 70: 64.73. Accessed online at: https://www.fs.fed.us/pnw/lwm/aem/docs/sloat/2013_sloat_osterback_cjfas_temperatureesteelhead.pdf

Stillwater Sciences. 2018. City of Ventura Special Studies – Phase 3: assessment of the physical and biological conditions of the Santa Clara River Estuary, Ventura County, California. Final Report. Prepared by Stillwater Sciences, Berkeley California for City of Ventura, California. Available at:

https://www.cityofventura.ca.gov/DocumentCenter/View/11721/2018-Final-Phase-III-Studies-Report

Technical Review Team (TRT) 2018. City of Ventura special studies – Phase 3: Assessment of the Physical and Biological Conditions of the Santa Clara River Estuary, Ventura County, California. Available at: https://www.cityofventura.ca.gov/DocumentCenter/View/13037/2018-March-Technical-Review-Team-Comments-Phase-III-Report

Williams, T. et al. 2016. "Viability assessment for Pacific salmon and steelhead listed under the Endangered Species Act: Southwest." Report to National Marine Fisheries Service –West Coast Region from Southwest Fisheries Science Center. NOAA-TM-NMFS-SWFSC-564.170pp. Available at: http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/2016/tec h_memo_esa_salmon_steelhead_viaibility-swfsc.pdf

Attachment A

State of California – Natural Resources Agency
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April 22, 2019

Ms. Gina Dorrington
City of Ventura
501 Poli Street, Room 120
Ventura, CA 93002-0099
gdorrington@cityofventura.ca.gov

Subject: Comments on the Draft Environmental Impact Report for the Ventura Water Supply Project (SCH# 2017111004), Ventura County

Dear Ms. Dorrington:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Draft Environmental Impact Report (DEIR) for the Ventura Water Supply Project (Project) prepared pursuant to the California Environmental Quality Act (Public Resources Code 21000 et seq.) and its administrative regulations (CEQA Guidelines)[1] with the City of Ventura acting as lead agency.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code §§ 711.7, subd. (a) & 1802; Pub. Resources Code § 21070; CEQA Guidelines § 15386, subd. (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code § 1802). Similarly, for purposes of CEQA, CDFW is directed to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code § 21069; CEQA Guidelines § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration (LSA) regulatory authority (Fish & G. Code § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code § 2050 et seq.) or the Native Plant

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Protection Act (NPPA; Fish & Game Code §1900 et seq.), CDFW recommends the project proponent obtain appropriate authorization under the Fish and Game Code.

Proponent: City of Ventura (City)

Project Location: Cities of Ventura, Oxnard and Port Hueneme in Ventura County. The Ventura Wastewater Reclamation Facility (VWRF) currently discharges recycled water into the Santa Clara River Estuary (SCRE), and several pipelines will cross the following drainages: the Santa Clara River, Arundell-Barranca, Brown Barranca, Harmon Barranca, and Bubbling Springs.

Project Description/Objective: The Project objective is to protect the ecology of the SCRE, develop additional water supply sources to meet water demands for planned future growth, and enhance supply reliability including in drought years. The Project would be implemented in two phases. The first phase (Phase 1) would divert 4.7 million gallons per day (MGD of tertiary treated water to the VenturaWaterPure Project (VenturaWaterPure) for additional treatment and to provide a new potable water supply, with flows continued to protect the ecology of the SCRE. The second phase (Phase 2) would provide additional needed water supply if Phase 1 is insufficient to meet the needs of planned growth.

Based on the Scientific Review Panel (SRP)'s recommendation [supported by the Technical Review Team (TRT)], and feedback from the agencies, the City is proposing additional phasing to the implementation approach that would commit to a Continued Discharge Level (CDL) of 1.9 MGD by the end of 2025, with a planned reduction to a CDL of 0 to 0.5 MGD during closed berm conditions by the end of 2030. The City has calculated that the addition of approximately 1.2 MGD [1,400 acre-feet per year (AFY)] of purified groundwater, in conjunction with the new potable reuse supply, would provide sufficient blending of existing groundwater supplies to improve delivered potable water supply with the objective of meeting the secondary maximum contaminants (MCLs). The amount of desalted groundwater needed to meet objective for Phase 2 would expand to 2,000 AFY.

VenturaWaterPure would include diversion of the VWRF tertiary-treated flows and low-quality groundwater to a new advanced water purification facility (AWPF) to produce highly purified water. The groundwater would be pumped from the Oxnard Plain Basins (Oxnard Basin) and treated at the AWPF, where the water would be used for groundwater augmentation and/or direct potable reuse (DPR). A brief description of the Project's phases and components are provided below:

- Phase 1 - Water Conveyance System: The Project would require the installation of several pipelines to convey source water and product water throughout the new system. The following pipelines would be constructed:
    - A Polyvinyl chloride (PVC) pipeline conveying tertiary-treated water from VWRF to the AWPF. A pump station would be constructed at the VWRF.
    - A PVC pipeline conveying raw groundwater from existing extraction wells at the City Gold Course to the AWPF. While the existing well pumps may be sufficient to convey the water to the AWPF, additional pump stations may be needed.
    - A PVC pipeline conveying purified water from the APWF to groundwater wells in the Oxnard Basin for indirect potable reuse (IPR) project and/or to the Bailey Waste Conditioning Facility (WCF) and/or Saticoy WCF for the DPR project.

- A PVC pipeline conveying extracted groundwater from the groundwater wells to the Baily WCF for the IPR project.
- A PVC pipeline to return backwash waste or emergency shutdown water between the AWPF and VWRF that is returned to the influence of the VWRF for retreatment.

The pipelines would be constructed within public right-of-way (ROW) where feasible. A new pump station would be constructed at AWPF to pump the water to the groundwater wells.

- Phase 1 - Groundwater Wells: The Project includes the construction of up to six wells within the Oxnard Basin. Up to three wells would be located at Well Site 1 and up to three wells would be located at either Well Site 2 or Well Site 3 (final configuration to be determined by detailed groundwater modeling). Each well would have capacity to inject/extract between 1,250 – 2,750 gallons per minute (depending on the site) of purified water in the Oxnard Basin. The wells in the Oxnard Basin would be constructed in the Oxnard Aquifer within the Upper Aquifer System to a depth of approximately up to 250 feet. Each wellhead would require approximately 1,500 square feet, including room for construction drill rigs and maintenance truck parking. A pump station would also be located at the well sites to deliver the extracted groundwater and/or the DPR water to Bailey WCF.

- Phase 1 - Wildlife/Treatment Wetlands: Part of the Project includes up to 35 acres of wildlife/treatment wetlands that may be constructed east of the VWRF to provide additional treatment to the effluent prior to being discharged to the SCRE.

- Phase 1 - VWRF Treatment Upgrades: The Project includes VWRF treatment upgrades that would be implemented in combination with the modified and/or new wildlife/treatment wetlands to further reduce nitrogen in VWRF effluent discharged from the wildlife/treatment wetlands to the SCRE.

- Phase 1 - Concentrate Discharge Facility: The AWPF treatment process would produce a concentrated effluent that would contain several times the concentration of salts as the influent water. The concentrate would need to be discharged to the ocean in compliance with California Ocean Plan water quality standards for ocean discharge. In addition to handling concentrate, the new outfall options would be designed to accommodate some tertiary treated flows that exceed AWPF capacity during wet weather events or during times of emergency shutdown.

- Phase 2 - Option A (AWPF Expansion): The City would pursue Option A to divert the remaining wastewater flows from the VWRF to the AWPF to reach a CDFL of 0 (zero) during closed berm, dry weather conditions. The wildlife ponds would still be utilized but would operate as terminal wetlands during dry weather months. During winter open sand berm conditions, reflecting the steelhead migratory period, flows in excess of the AWPF facility's capacity would be discharged to the SCRE. This option would require an AWPF expansion to reliably produce up to an additional 1.2 MGD (1,400 AFY) of product water, and an additional 600 AFY of treated groundwater. The combined Phase 1 and Phase 2 project total would result in 6.7 MGD (7,400 AFY) of reliable new water supply. Additional flow routing modifications and/or storage would be required at VWRF site to accommodate a CDL of 0 (zero).

- Phase 2 - Option B (Ocean Water Desalination): If the necessary regulatory approvals do not allow for a consistent, reliable water supply based on the tertiary-treated water, or if the

supply is insufficient to meet the City's reliable water supply and water quality demands, an ocean desalination treatment facility would be needed. The new ocean desalination treatment facility would be located at the AWPF site and could produce an estimated additional 1.2 MGD (1,400 AFY) of desalinated water.

Five alternatives were selected for detailed analysis. A general description of each alternative to the proposed project is provided below:

- Alternative 1 - No Project: There would be no development of new water supplies to augment the City's water supply portfolio.

- Alternative 2 - Zero Percent Diversion: Tertiary-treated discharge from the VWRF would not be diverted for potable reuse and would continue to flow into a 20-acre system of freshwater wildlife/treatment ponds prior to discharge to SCRE. Under this alternative, the City would seek to construct the ocean desalination facility.

- Alternative 3 - 60 Percent Diversion: This alternative would divert 60 percent of the current flow of VWRF tertiary-treated discharge during dry-weather, closed-berm conditions (currently an average monthly flow of 2.8 MGD) as recommended by the Phase 3 Study (submitted to Regional Water Board on February 20, 2018). Since this volume of water is insufficient to meet water supply demands, this alternative requires construction of ocean water desalination in Phase 1 to meet water supply demands.

- Alternative 4 - 100 Percent Diversion in Phase 1: This alternative would consistently divert the entire current flow of VWRF tertiary-treated discharge during dry-weather, closed-berm conditions (currently an average monthly flow of 4.7 MGD) to the new AWPF for potable reuse. The VWRF would have zero discharge during dry weather, normal operating conditions. Existing wildlife ponds would be retained as endorheic/terminal wetlands during dry-weather flow. This alternative does not require construction of an ocean water desalination facility. Up to 2,000 AFY of groundwater desalting would be implemented similar to the proposed project. This alternative would not provide for a staged implementation approach to 100 percent diversion. Therefore, unlike the proposed Project, this alternative would not incorporate data collection following the reduction to a 1.9 MGD discharge to inform the final flow reduction and ensure that the decreased discharge to the SCRE would not reduce habitat values.

- Alternative 5 - Conveyance of Tertiary Effluent to Oxnard Wastewater Treatment Plant: Tertiary-treated discharge from the VWRF above the amount of the approved CDL (up to 100 percent of VWRF direct discharges) would be conveyed 10 miles to the Oxnard Wastewater Treatment Plant. The effluent would be available to the City of Oxnard to reuse for non-local supply offset or to supplement its supply. The project would not augment water supplies for the City of Ventura. Under this alternative, the City would need to develop an ocean desalination facility to meet future water supply and potable water quality needs.

- Alternative 6 - Rehabilitation of Existing Fairgrounds Outfall: All components of the proposed projects would remain the same, except for the Concentrate Discharge Facility component. There are two potential existing outfalls that are no longer in operation in the proximity of the AWPF sites that could potentially be re-purposed for the concentrate

discharge. These outfalls served the former Seaside Sewage Treatment Plant, which was owned by the City. Both pipelines come from a single point on the fairgrounds property.

The DEIR identifies Alternative 4 as the environmentally superior alternative (other than No Project Alternative) because it coincides with the SRP/TRT Report conclusions of a range of 0 – 0.5 MGD CDL.

Timeframe: Phase 1 would be achieved in two steps:

- Phase 1A would be implemented by the end of year 2025 with the VWRF committing to a CDL of 1.9 MGD, and 2.8 MGD of minimum VWRF flow diverted to other uses.
- Phase 1B would be implemented by the end of year 2030 with the VWRF committing to a CDL of between 0-0.5 MGD, and 4.2-4.7 MGD of minimum VWRF flow diverted to other uses.

Phase 2 Option A or Option B would be implemented between 2030 and 2035 to meet dry-year demands.

HISTORY

The City has been working with CDFW, U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), and Los Angeles Regional Water Quality Control Board (LARWQCB) to address concerns regarding the potential impacts to biological resources associated with the proposed diversion of tertiary-treated water discharges into SCRE to potable reuse. In coordination with FWS and NMFPS, CDFW submitted a letter dated December 13, 2018, to RWQCB to response to a request for information regarding the issuance of the National Pollutant Discharge Elimination System (NPDES) permit for the City's proposed VenturaWaterPure Project and proposed changes to effluent discharges into the SCRE. The RWQCB requested CDFW to provide flow recommendations and monitoring requirements for the reduction in discharge from the VWRF located in the SCRE. CDFW recommended a minimum average annual flow of 1.9 MGD for summertime closed berm conditions.

The City will be required to submit a wastewater change petition to the State Water Resources Control Board to approve the reduction of wastewater associated with the DEIR. CDFW will have the opportunity to protest the petition and propose measures to remedy any unresolved concerns related to potential impacts to biological resources.

Biological Significance

The SCRE provides open water, sand dune, nearshore, riparian, mudflat, and other habitats that support a number of sensitive species (some listed) throughout their life cycles, including the tidewater goby (*Eucyclogobius newberryi*), Southern California steelhead trout (*Oncorhynchus mykiss*), California least tern (*Sterna antillarum browni*), and western snowy plover (*Charadrius nivosus*). SCRE is a core resource area strategically located along the coast that provides food, shelter, stopover, and safety for wildlife. The protection and preservation of the SCRE for the above-named species remains a high priority for CDFW. The Santa Clara River, Arundell-Barranca, Brown Barranca, Harmon Barranca, and Bubbling Springs provide breeding and foraging habitat for local fish and wildlife resources. Sensitive riparian habitat adjacent to the groundwater wells along the Santa Clara River support

southwestern willow flycatcher (*Empidonax traillii extimus*), and least Bell's vireo (*Vireo bellii pusillus*), yellow warbler (*Setophaga petechia*), and yellow breasted chat (*Icteria virens*). Impacts to California species of special concern (SSC), including yellow warbler, yellow breasted chat, and steelhead, should be considered a significant direct and cumulative adverse effect under CEQA without implementing appropriate avoidance and/or mitigation measures (CEQA Guidelines §§ 15064, 15065, 15125[c] and 15380).

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

CDFW also recommends the environmental document include measures or revisions (outlined below) in a science-based monitoring program, with adaptive management strategies, as part of the Project's CEQA mitigation, monitoring and reporting program (Public Resources Code, § 21081.6 and CEQA Guidelines, § 15097).

I. Project Description

Comment #1: Minimum Flows Analysis and the Identification of Alternative 4 as the Environmentally Superior Alternative

Issue #1: *Alternative 4 (100 Percent Diversion)*. The DEIR identifies Alternative 4 as the environmentally superior alternative, other than No Project Alternative ([CEQA Guidelines § 15126.6 (e)(2)]. Alternative 4 is described as the environmentally superior alternative because it coincides with the SRP/TRT Report conclusions of a range of 0 – 0.5 MGD CDL.

Issue #2: *Health of the Entire Estuary*. The DEIR focuses on the tidewater goby as the key resident fish species. CDFW is concerned that primarily utilizing the tidewater goby does not fully identify the minimum flow criteria to address steelhead smolt and the health of the whole 160-acre estuary. Habitat diversity should be the primary metric that informs minimum flow discharge to provide for a variety of habitat vegetation types, water temperature, water salinity, and water-column depths to support the variety of existing species.

Issue #3: *Dry Weather Closed Sand Berm Conditions*. The current average annual discharge of 4.7 MGD provides approximately 108 acres of open water. Phase 1A (60 percent diversion) with a flow of 1.9 MGD would result in approximately 86 acres of open water. Phase 1B (90 percent diversion) with a flow of 0.5 MGD would result in 49 acres of open water habitat, Phase 1B (100 percent diversion) with zero discharge would result in 41 acres of open water habitat.

Specific Impact: Southern California steelhead trout is the largest species that depends on the SCRE for vital life-history and ecological function and should be at the forefront in the existing and future models. This species utilizes all areas of the estuary including the open water habitat. The SCRE has long been recognized as important rearing habitat for steelhead trout fingerling and smolt until they reach maturity as adults to survive the tough conditions of the Pacific Ocean.

Why impact would occur: The SCRE receives groundwater inflow upstream in the Santa Clara River. Water quality conditions in the estuary have the potential to affect juvenile

steelhead. The SCRE currently has approximately 108 acres of open water which provides a combination of fairly shallow open water and water that is generally deep enough to provide some protection from terrestrial and larger avian predators. The Project proposes to divert current flows that would result in a reduction of open water habitat, and decrease the amount of water that dilutes contaminants from surface runoff and concentrations of nutrients and other contaminants present in the groundwater upwelling such as total dissolved solids, sulfates, manganese (Burton et al. 2011) during dry weather closed berm conditions. Alternative 4, identified in the DEIR as the superior alternative, proposes a 100 percent diversion and would eliminate flows that currently dilute contaminants.

Evidence impact would be significant: Habitat conditions in the SCRE could be unsuitable or lethal to any out-migrating juvenile steelhead during closed sand berm conditions due to a decrease in the VWRF discharges.

Surface runoff from local urban and agricultural uses located along the Santa Clara River flows into the SCRE. High levels of pesticides can alter benthic macroinvertebrate assemblages and reduce prey availability for steelhead and estuarine species (Grimmaldo et al. 2009; Anderson et al. 2014). Pesticides may also disrupt olfactory sensory neurons necessary for salmonid species homing and predator avoidance (Anderson et al. 2014).

The Stillwater Report (Stillwater, 2018) recommends 1.9 MGD for the Enhancement Discharge Levels, CDL, and Maximum Ecologically Protective Diversion Volume (MEPDV). The 1.9 MGD minimum average flow reflects Alternative 3 (60 Percent Diversion) and would include sufficient contingency to account for the level of uncertainty described in the City's Estuary Studies, Stillwater (2018) report, and unforeseen factors. CDFW believes this flow represents a conservative best estimate to maintain ecological functions, minimize reduction of surface water and habitat for wildlife, and monitor changes to habitat and species in SCRE.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: CDFW recommends a minimum average flow of 1.9 MGD for dry weather closed sand berm conditions to ensure enough open water habitat is present for steelhead and tidewater goby to avoid predation, and water is flowing during dry weather periods to dilute contaminants from surface runoff and groundwater upwelling.

Mitigation Measure #2: CDFW recommends water samples and sediment samples to be collected in the SCRE to analyze toxicity levels for invertebrates.

Comment #2: Groundwater Dependent Ecosystems

Issue: CDFW has a vested interest in the sustainable management of groundwater, as many sensitive ecosystems and public trust resources are dependent on groundwater. The Oxnard Basin is a critically overdrafted basin (COB). The final EIR should consider and analyze impacts to groundwater dependent ecosystems (GDEs) in the Project.

Specific Impact: The Oxnard Basin is subject to critical conditions of overdraft when continuation of present water management practices could result in significant adverse environmental, social, or economic impacts. For this reason, additional extractions to COBs (depending on the specific reason for its listing) are likely to have adverse impacts.

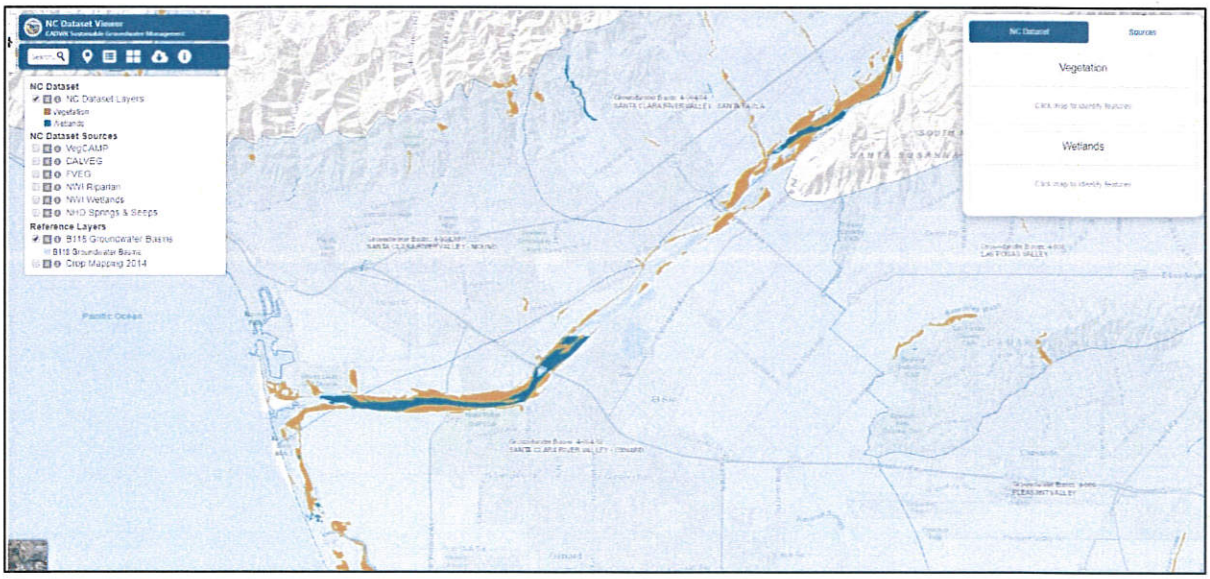
Why impact would occur: The Department of Water Resources (DWR)'s Natural Communities Commonly Associated with Groundwater Dataset identifies many potential GDEs in the Project's geographic scope (DWR 2019). The potential GDEs identified in orange in Figure 1 of DWR's dataset likely consists of phreatophytic vegetation, which rely on water supply from the groundwater table.

Evidence impact would be significant: Phreatophytic vegetation is a critical contributor to nesting and foraging habitat for a wide range of species and can be affected by depth to groundwater (Naumburg et al. 2005, Froend and Sommer 2010). This sensitivity to groundwater level thresholds means that localized pumping and recharge actions altering groundwater levels, such as those proposed in the Project, can impact the health and extent of phreatophyte vegetation. Both decreasing (drying out) or increasing (drowning) groundwater elevation has the potential to stress phreatophytes depending on the plant species and the groundwater elevation and duration (e.g., short term wetness/dryness versus prolonged wetness/dryness). Proposed groundwater management actions included in the Project should be managed with consideration to impacts to potential GDEs.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: The final EIR should verify the existence of GDE that could be affected by the Project and identify vegetation communities (e.g., species compositions, structural diversity, and integrity) and associated rooting depths/optimal groundwater table elevations. This will allow Project proponents to: 1) determine which proposed phase or alternative is most likely to impact GDEs based on basin hydrology; 2) deploy representative groundwater monitoring stations within GDEs to track groundwater levels and vegetation responses over time; and, 3) establish thresholds/triggers for adaptive management to respond to stressed vegetation as needed. If the Project is expected to result in habitat benefits to GDE's, monitoring should be utilized to track and confirm positive and negative outcomes.

Figure 1: Potential groundwater dependent ecosystems within the Oxnard Basin and the proposed Project areas.



Comment #3: Groundwater Impact Analysis

Issue #1: The DEIR on page 3.6-9 states, "[a] very significant area in Ventura County is experiencing subsidence, including the project area (County of Ventura 2013). Data suggests that groundwater has been extracted from the aquifers underlying the Oxnard Basin at a rate that exceeds the rate of replenishment, referred to as 'overdraft'". An evaluation of subsidence impacts to GDEs from the Project should be included in the EIR.

Issue #2: The DEIR on page 3.9-56 states, "[f]or wells near the coast, groundwater extraction could promote seawater intrusion under certain operating scenarios. Avoiding sweater intrusion would be accomplished through extraction of the injected water within a short time frame to avoid excessive subsurface migration. Similarly, long-term storage of injected water in the Oxnard Basin could displace naturally recharged groundwater". An evaluation of increase saltwater intrusion or the displacement of naturally recharged groundwater to GDEs from the Project should be included in the EIR.

Specific impact: The DEIR lists on page 3.9-57 specific actions to be implemented if potable wells are found to be adversely affected by the aquifer storage and recovery (ASR) operations through a reduction in water quality or impeding access to groundwater.

Why impact would occur: The Project proposes phases that may increase groundwater production and treatment. Increased groundwater extraction during dry water years can lower groundwater tables. This lowering of the groundwater table can potentially cut phreatophytes off from a water supply causing vegetation stress (and possibly death) depending on vegetation needs and duration of lower quality groundwater levels. Groundwater recharge with treated water may also raise local groundwater table elevations. As increased recharge raises the groundwater table, phreatophyte roots can be 'drowned' in fully saturated soil zones causing vegetation stress (and possibly death) depending on vegetation needs and duration of high groundwater levels. Groundwater activities such as pumping, treating, extracting, and recharging within two (2) month intervals may further contribute to possible subsidence.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: The final EIR should address how the groundwater activities such as pumping, treatment, extracting, and recharging within two (2) month intervals may impact GDEs. CDFW also recommends that the City coordinate with the Fox Canyon Groundwater Management Agency to discuss effective/reliable methods to monitor and manage for impacts to GDEs.

Comment # 4: Vegetation and Habitat Communities

Issue: Chapter 3.4.3. of the DEIR identifies within the Project area arroyo willow thickets, mulefat thickets, riverwash herbaceous, coyote brush scrub, giant read breaks, hardstem bulrush marsh, dune mat, shining willow groves, Pacific silverweed marsh, creeping rye grass turf, and FWS-designated critical habitat (DCH) for southwestern willow flycatcher. These vegetation communities such as the arroyo willow thickets, mulefat thickets, riverwash herbaceous, and FWS- DCH for southwestern willow flycatcher are present in the Santa Clara River adjacent to the proposed groundwater wells, but are not quantified.

Specific impact: Impacts to specific habitat communities and vegetation adjacent to proposed groundwater wells (see Figure 3.4-1) are not provided (quantified) in the DEIR. All impacts to sensitive habitat communities should be identified, mapped and quantified in the final EIR. Without an impact analysis and proposed avoidance, minimization and mitigation measures, impacts to vegetation and habitat communities should be considered significant and unmitigated under CEQA.

Why impact would occur: Increased groundwater extraction during dry water years can lower groundwater tables, which can potentially cut phreatophytes off from water causing vegetation stress (and possibly death) depending on vegetation needs and duration of lower quality groundwater levels. Groundwater recharge with treated water may also raise local groundwater table elevations, potentially resulting in root "drowning" in fully saturated soil zones causing vegetation stress (and possibly death).

Evidence impact would be significant: The Project area includes sensitive species such as southwestern willow flycatcher, and least Bell's vireo, yellow warbler, and yellow breasted chat that depend on the sensitive riparian habitat. The DEIR should list specific habitat community acreages, provide the calculations for the potential loss of acreages, and propose avoidance/minimization and mitigation measures. Without this information in the EIR, adverse impacts to these sensitive vegetation and habitat communities should considered significant and unmitigated under CEQA.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure # 1: CDFW recommends that the City identify the vegetation and habitat communities within the GDEs and conduct floristic-based assessments of special status plants and natural communities following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959). Please note, this protocol has been recently updated and the 2018 version referenced here should be used.

Comment #5: Focused Pre-Construction and Post-Construction Aquatic Surveys

Issue: The Project may potentially affect existing aquatic species and/or their habitats.

Specific impact: Project implementation may result in reduced reproductive capacity, population declines, or local extirpation of rare, special-status, or threatened and endangered species.

Why impact would occur: Project implementation could substantially reduce aquatic species habitat and/or degrade the quality of habitat, which may cause aquatic populations to drop below self-sustaining levels.

Evidence impact would be significant: CDFW considers adverse impacts to habitat for aquatic species, for the purposes of CEQA, to be significant without mitigation. Project-related impacts to aquatic species and their habitats, supported by current survey results, should be analyzed in the EIR.

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: CDFW recommends that focused surveys for fish, amphibians, and marine species be conducted with focus on identifying special status species and species abundance. CDFW recommends that aquatic surveys be conducted by a qualified fisheries biologist to identify the fish species and quantify the fish populations that are present within: 1) the areas within the open water habitat of the SCRE; and, 2) upstream of the SCRE adjacent to the proposed groundwater pumping well sites along the Santa Clara River. Focused species-specific surveys should consider seasonal variations and be conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable.

Comment #6: Focused Pre-Construction and Post-Construction Avian Surveys

Issue: The Project may potentially affect existing avian species and/or their habitats.

Specific impact: Project implementation may result in reduced reproductive capacity, population declines, or local extirpation of rare, special-status, or threatened and endangered species.

Why impact would occur: Project implementation could substantially reduce avian species habitat and/or degrade quality of habitat, which may cause avian populations to drop below self-sustaining levels.

Evidence impact would be significant: CDFW considers adverse impacts to habitat for avian species, for the purposes of CEQA, to be significant without mitigation. Project-related impacts to avian species and their habitats, supported by current survey results, should be analyzed in the EIR. As mentioned previously, impacts to avian SSC avian should be considered a significant direct and cumulative adverse effect under CEQA without implementing appropriate avoidance and/or mitigation measures (CEQA Guidelines §§ 15064, 15065, 15125[c] and 15380).

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: CDFW recommends that focused surveys for avian species be conducted with focus on identifying special status species such as California least tern, western snowy plover, southwestern willow flycatcher, least Bell's vireo, yellow warbler, yellow chat, and all raptor species. CDFW recommends that avian surveys be conducted by a qualified ornithologist prior to adoption of the final EIR to identify avian species that are present within: 1) the SCRE; and, 2) upstream of the SCRE adjacent to the proposed groundwater pumping well sites along the Santa Clara River. Focused species-specific surveys should consider seasonal variations and be conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable.

Comment #7: Deferred Mitigation

Issue: The DEIR concludes that the Project would result in a 90-100 percent reduction of VWRF discharges and cause a reduction of open water estuary acreages and mudflat estuary acreages by 55-62 percent. The Project would also reduce the acreage of spawning and rearing habitat for tidewater goby, rearing habitat for subadult steelhead, and foraging habitat for California least tern and western snowy plover.

Specific Impact: The SCRE currently receives an annual average of 4.7 MGD. The VRWF discharges have altered the baseline hydrograph and have created ecosystem reliance on the discharge flows. Project implementation will result in impacts to the SCRE, sensitive vegetation communities, and listed/sensitive wildlife. This could result in direct mortality, reduced reproductive capacity, population declines, or local extirpation of several sensitive species.

Why impact would occur: CDFW considers the Post Construction SCRE Monitoring, Assessment, and Adaptive Management Program (MAAMP) proposed in DEIR to address impacts and mitigation measures as deferred analysis impacts and mitigation to a future date after the Project has already been approved. Without a supporting impact analysis and proposed avoidance, minimization and mitigation measures in the EIR, impacts to vegetation and habitat communities should considered significant and unmitigated under CEQA.

Evidence Impact would be significant: CEQA Guidelines sections 15070 and 15071 require the EIR to analyze if the Project may have a significant effect on the environment as well as review if the Project will "avoid the effect or mitigate to a point where clearly no significant effects would occur". In order to analyze if a project may have a significant effect on the environment, Project-related impacts, including survey results for species that occur in the entire Project footprint should be included in the DEIR for public review. This information allows CDFW to comment on alternatives to avoid impacts as well as to assess the significance of the specific impact relative to the species (e.g., current range, distribution, population trends, and connectivity).

In addition, CEQA Guidelines section 15126.4(a)(1)(B) states "[f]ormulation of mitigation measures should not be deferred until some future time." CDFW considers the planned preparation of the MAAMP as a deferral of mitigation; therefore, it would not adequately avoid, minimize, or mitigate significant impacts in accordance with CEQA and not be disclosed during the DEIR review process. At a minimum, the EIR should include draft MAAMP for review and comment with the EIR.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends that the final EIR include specific information regarding potential impacts to streambed vegetation communities that may be considered groundwater dependent and could be affected by Project-related changes in the water quality and quantity of groundwater. This information should include the location and acreage of any impacts and proposed avoidance, minimization, and mitigation measures.

Mitigation Measure #2: The final EIR should evaluate the Project-related and cumulative effects of upstream water diversions. Such diversions can result in reduced fresh-water contributions upstream and should be factored into determining the appropriate baseline condition for recommendations.

Mitigation Measure #3: BIO-5 should be updated to implement a 5-year Pre-Construction SCRE Monitoring Program. The Monitoring Program should include:

a) Approaches and methods to establish pre-project baseline conditions;
b) The continuous deployment of four or five datasondes strategically placed within the SCRE to determine real-time, short-term, long-term, and seasonal variation of water

conditions within the estuary, water levels, temperature, salinity, pH, and dissolved oxygen. Data should be collected hourly, and downloaded every two weeks;

c) Protocol surveys:
    i) Water samples within the SCRE;
    ii) Sediment samples within the SCRE;
    iii) Surveys to collect data on the horizontal and vertical availability of nearshore and open water habitat to be maintained at a minimum amount of acreage to support adult Southern California steelhead trout;
    iv) Surveys to collect data on the width of buffer zones for willow riparian and mudflat habitats from roads, bridges, state facilities, and Ventura infrastructure to ensure continued use by wildlife; and,
    v) Identification and preservation of habitat elements that support special status species (e.g., wrack and dunes for birds and nearshore habitat for fish).

Mitigation Measure #4: BIO-6 should also be updated to include:

a) Statistics, sampling sizes, surveys, and methods used to detect significant changes and how it will be monitoring and analyzed;
b) Approaches to establish the proposed timeline and seasonal restrictions for data collection, monitoring, and proposed discharge reductions;
c) Monitoring of bathymetric or water depth measurements with acreage calculations;
d) Monitoring of species abundance, and habitat within the estuary (nearshore and open water areas) to document changes in water depth and species/habitat composition). Depth measurements should be conducted no less that weekly at two locations (upper third and lower third) in the open water area;
e) Seasonal and annual monitoring/quantification of changes in aquatic and terrestrial habitat types/distributions and sensitive species within the SCRE;
f) The continuous deployment of four or five datasondes strategically placed within the SCRE to determine real-time, short-term, long-term, and seasonal variation of water conditions within the estuary, water levels, temperature, salinity, pH, and dissolved oxygen. Data should be collected hourly, and downloaded every two weeks;
g) Measurable performance standards to verify sufficient ecological functions for all species;
h) Identification and analysis of the source of nutrients that exist within the shallow groundwater inflows and discharges from the treatment plant;
i) Regular sampling of SCRE sediment to monitor toxicity levels for invertebrates (prey for fish species);
j) Monitoring/control measures for invasive plant, animal, and aquatic species;
k) Developing all adaptive strategies for effluent discharge based on ecological needs of special status species that occupy SCRE including how to balance the competing needs of special status species. This may include an increase in discharge to dilute contaminants levels to benefit fish species during dry weather conditions, but this increase may breach the sand berm or cause nest failure along the sand berm;
l) Ecological parameters for the trigger thresholds;
m) Mechanisms for annual review of the minimum and maximum monthly average flows; and,
n) Courses of actions, adjustments to the discharge amounts, and mitigation measures to be implemented in the event that thresholds are triggered.

Mitigation Measure #5: To offset the loss of habitat acreage that supports sensitive species, CDFW recommends the following compensatory mitigation for the City's proposed changes to effluent discharge to the SCRE:

a) Arundo (*Arundo donax*) removal around the periphery and within the SCRE to promote overall increase in habitat quality for nesting birds;
b) Maintenance of wrack on the sandy beach areas of McGrath State Park for endangered terrestrial bird species;
c) Installation of new gauges to monitor effluent surface flows (down the Santa Clara River and into the SCRE) and groundwater upwelling (at the mouth of the SCRE) to collect and analyze data on the natural hydrology of SCRE and to inform needs for seasonal effluent discharge; and,
d) Creation of estuarine open water, freshwater, and mudflat habitat. If on-site mitigation is not feasible or would not be biologically viable and, therefore, would not adequately mitigation the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

Comment #8: Impacts to Streambed Resources

Issue #1: The final EIR should identify all perennial, intermittent, and ephemeral stream features, and any associated biological resources/habitats present within the entire Project footprint (including access and staging areas). The Project activities are within the bed, bank and channel of two ephemeral streams and the River. The Project may be subject to notification under Fish and Game Code § 1600 et seq. The Brine Discharge Pipeline for the Concentrate Outfall will cross the Arundell-Barranca drainage. The Advanced Treatment Water Pipeline will cross numerous streams such as the Brown Barranca and the Harmon Barranca drainages. The two potential connections for the Callugues Salinity Management Pipeline (SMP) Alignment will cross the Bubbling Springs drainage. Within the Santa Clara River, the Project activities and groundwater pumping from six groundwater wells may have an impact resulting in a measurable or visual change in water surface elevation or a visual reduction in the width of the stream surface flow. The final EIR should analyze all potential temporary, permanent, direct, indirect, and/or cumulative impacts to the above-mentioned stream areas that may occur as a result of the Project.

Comment #9: Discharge Location

Issue #1: The current discharge point should be evaluated for relocation further upstream in the estuary (e.g., closer to Victoria Avenue Bridge) to create more "natural" hydrology in the SCRE. The relocated discharge point would move the freshwater input away from the mouth of the estuary, further upstream.

Comment #10: Saltwater Intrusion

Issue #1: Saltwater contribution from wave over-wash can significantly contribute to the open water volume and increase the salinity within SCRE. Therefore, saltwater should be further studied and calculated directly into the water balance model. In addition, the City should identify the rate and contributions for filling of the SCRE (e.g., water-surface elevations relative to tides, wave action, stratification, limits of inundation), including changes to the bathymetry of the estuary following large storm events and changes to the beach dynamics associated with

dredge spoil placement. The City should also evaluate and quantify the contribution of groundwater to nutrient input and water volume in SCRE.

Issue #2: The final EIR should consider and address changes to SCRE hydrology, flows from the United Water Conservation District's water management practices, and proposed restoration actions at McGrath State Park.

Comment #11: Impacts to Streambed Resources

Issue #1: The Project may result in potential effects to marine resources from impingement and entrainment by the proposed subsurface intake system such as slant wells, beach wells, or infiltration galleries. CDFW prefers the method of drawing salt water from directionally drilled wells (slant wells) for desalination to avoid fish, fish egg, and larvae entrainment and impingement that would occur when using direct ocean intakes with wire mesh. Impacts to marine organisms other than fish may occur. These impacts to marine organisms should be analyzed in the final EIR. Additionally, long-term monitoring, testing, and fish impact analysis should be conducted if fish screens and direct ocean draw are proposed alternatives.

Comment #12: Desalination Brine Discharge and Water Quality

Issue #1: Discharge of brine effluent to the marine environment may cause potential harmful impacts to marine life. Several brine discharges should be analyzed, pilot tested, and chosen based on scientific data indicating it will avoid marine water quality impacts, marine species impacts, or based on data collected to show that impacts will be reduced to below a level of significance. The final EIR should fully describe potential marine environmental effects from each brine effluent discharge alternative. In addition, a detailed monitoring plan is recommended for any alternatives that propose direct ocean discharge of brine waste to ensure that the discharged effluent is fully mixed and is properly diluted for protection of marine resources.

Comment #13: General Construction Recommendations

Issue #1: Parking, driving, lay-down, stockpiling, and vehicle and equipment storage should be limited to previously compacted and developed areas and the designated staging area. No off-road vehicle use should be permitted beyond the project site and designated access routes. Disturbances to the adjacent native vegetation should be minimized. Nonnative plants, including noxious weeds (as listed by the California Invasive Plant Council), should be prevented from establishing in temporarily disturbed areas, either by hand-weeding or selective application of herbicide.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports be incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address:

CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife and assessment of CEQA filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the lead agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR for the Ventura Water Supply Project to assist the City of Ventura in identifying and mitigating Project impacts on biological resources. For any questions regarding this letter and further coordination on these issues, please contact Mary Ngo at (562) 342-2140 and Mary.Ngo@wildlife.ca.gov.

Sincerely,

Ed Pert
Regional Manager

ec: CDFW
Erinn Wilson, EPMI (Los Alamitos)
Randy Rodriguez, SES-Supervisory (Los Alamitos)
Mary Larson, SES-Supervisory (Los Alamitos)
Mary Ngo, SES-Specialist (Los Alamitos)

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Cris Morris, RWQCB, Chief, (Los Angeles)

Office of Planning and Research, State Clearinghouse, Sacramento

REFERENCES

Anderson, B., B. Phillips, J. Hunt, K. Siegler, J. Voorhees, K. Smalling, K. Kuivila, M. Hamilton, J.A. Ranasinghe, R. Rjeerdema 2014. Impacts of pesticides in a Central California Estuary *Enivron Monit,* 186:1801-1814.

Burton, C.A., Montrella, Joseph, Landon, M.K., and Belitz, Kenneth, 2011, Status and understanding of groundwater quality in the Santa Clara River Valley, 2007—California GAMA Priority Basin Project: U.S. Geological Survey Scientific Investigations Report 2011–5052, 86 p.

California Department of Water Resources (DWR). 2019. Natural Communities Commonly Associated with Groundwater Dataset. https://gis.water.ca.gov/app/NCDatasetViewer/

CDFW. 2019. California Natural Diversity Data Base (CNDDB). (https://www.wildlife.ca.gov/data/cnddb)

CDFW. 2019. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. (http://www.dfg.ca.gov/habcon/plant/).

Froend, R., and B. Sommer. 2010. Phreatophytic vegetation response to climatic and abstraction-induced groundwater drawdown: Examples of long-term spatial and temporal variability in community response. *Ecological Engineering*, 36:1191:1200.

Grimmaldo, L. F., A. R. Stewart, and W. Kimmerer. 2009. Dietary segregation of pelagic and littoral fish assemblages in a highly modified tidal freshwater estuary. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 1: 200–217.

Naumburg E., Mata-Gonzalez R., Hunter R.G., McLendon T., Martin D.W. 2005. Phreatophytic vegetation and groundwater fluctuations: a review of current research and application of ecosystem response modeling with an emphasis on great basin vegetation. *Environmental Management*. 35(6):726-40.

Stillwater Sciences. 2018. City of Ventura Special Studies – Phase 3: assessment of the physical and biological conditions of the Santa Clara River Estuary, Ventura County, California. Final Report. Prepared by Stillwater Sciences, Berkeley California for City of Ventura, California. February

Attachment B

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

September 24, 2019

Ms. Gina Dorrington
City of Ventura
501 Poli Street, Room 120
Ventura, CA 93002-0099
gdorrington@cityofventura.ca.gov

Subject: Comments on the Final Environmental Impact Report for the Ventura Water Supply Project (SCH# 2017111004), Ventura County

Dear Ms. Dorrington:

The California Department of Fish and Wildlife (CDFW) is providing the following comments for the administrative record in response to the City of Ventura's (City) 6 day advanced public notice of the Final Environmental Impact Report (FEIR) for the Ventura Water Supply Project (Project) prepared pursuant to the California Environmental Quality Act (Public Resources Code 21000 et seq.) and its administrative regulations (CEQA Guidelines)[1] with the City of Ventura acting as lead agency.

Comment #1: Applicability of Water Code Section 1211 on the Proposed Project

CDFW disagrees with the City's assertion in the FEIR that Water Code Section 1211 may not apply to discharges to the Santa Clara River Estuary (SCRE) which concludes the estuary is not a 'waterway' regulated by that statute (pg. 10.3-80 to 10.3-81; 10.3-144). The SCRE is a river that terminates at the ocean. As such, discharge into this estuary is regulated by Water Code Section 1211 and that there are impacts to aquatic life beneficial use. As a matter of fact, the State Water Resources Control Board (SWRCB) issued the 2015 Notice of Wastewater Change Petition WW0083 to the City for the same estuary and determined it to be watercourse subject to water code 1211. WW0083 Approval Order had stated in #7 that the reduction of discharge of treated wastewater will result in a decrease in the flow to the Santa Clara River. CDFW looks forward to providing recommendations during the wastewater change petition process for this proposed Project.

Comment #2: Mitigation Measure BIO-6

Issue #1: The Draft Environmental Impact Report (DEIR) and FEIR states that impacts will be less than significant with BIO-6 and the Monitoring, Assessment, and Adaptive

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

that will "avoid the effect or mitigate to a point where clearly no significant effects would occur" (CEQA Guidelines sections 15070 and 15071).

Issue #2: The FEIR further states that BIO-6 is a "project design feature" and "the program is not intended to 'mitigate' or offset any significant adverse environmental impacts of the Proposed Projects to sensitive environmental resources within the SCRE, including listed species and critical habitats because the preponderance of expert opinion based on the best available science supports a determination that the proposed project would not result in significant adverse impacts on those resources" (FEIR, Pg. 10.3-81).

Recommended Potentially Feasible Mitigation Measure: As described in our DEIR comment letter (April 22, 2019), CDFW believes the FEIR should include a draft MAAMP for review and comment with the EIR because the implementation of the MAAMP is described as mitigation measure BIO-6 of the DEIR that will "avoid and minimize adverse impacts to, and take of listed species within the SCRE resulting from Phase 1b reductions" (DEIR, Pg. 3.4-63).

Comment #3: Impacts to California Least Tern

Issue: CDFW is concerned of the lack of analysis in the DEIR and FEIR (FEIR, Pg. 10.3-113-10.3-114). regarding impacts to California least tern associated with a reduction of open water habitat. California least tern is an federal Endangered Species Act (ESA) listed and California Endangered Species Act (CESA) listed and fully protected species. "The availability of suitable foraging habitat near the SCRE, the enhanced quality of foraging in the SCRE, and improvements to nesting habitat would ensure that the impacts of the proposed projects would be less than significant" (DEIR, Pg. 3.4-54).

Why impact would occur: CDFW is concerned about this conclusion for a State listed and fully protected species. A reduction of open water habitat may result in nest mortality for California least terns.

Evidence impact would be significant: The Phase III study (Stillwater 2018) gives California least tern the "highest priority consideration because (a) they are endangered and fully protected under federal and State law…; (b) the SCRE provides high quality foraging habitat for least tern by concentrating prey, relative to open ocean habitat…" "Foraging habitat for California least tern is comprised of open water area and is greatest under current VWRF discharge…" "On balance, Scenario 1 (current VWRF discharge) provides the greatest support for RARE bird species primarily due to prioritization of open water foraging habitat for the least tern, with only minor declines in weighted assessment scores up to 70% VWRF discharge reduction (Scenarios 1-9)" (Page ES-14 of Phase III study, Stillwater 2018).

According to the California Least Tern Breeding Survey (Frost, 2016, 2017), a lack of sufficient foraging resources is widely thought to be a significant factor limiting California least tern population growth and warrants additional study.

According to Dennis Woods (1995): "...inadequate food supply increases chick mortality due to both starvation (decreased feeding rates) and predation (because of the prolong absence of foraging parents from their chicks) (Bukacinksi et al. 1998). Decreased prey availability has demonstrated to negatively affect the reproductive success of common terns by increasing foraging times required by adults for successful prey capture (Courtney and Blokpoel 1980). When parents are foraging for their chicks, and themselves, they cannot also be attending those chicks. The extended absence of adults can leave tern chicks vulnerable to death by exposure (hyper- or hypothermia) and predation" (Courtney and Blokpoel 1980, Parades and Zavagala 1998). Dennis Woods' "observations provide comparative information on the provisioning and attendance of young California Least Terns. Under "normal" conditions, Least Tern chicks under one week of age are brooded or attended for at least 95% of the day (Johnson 1995, Keane 1987, Thompson et al. 1997). In 1998, only chicks at Huntington Beach were attended at "normal" rates, checks at NAS Alameda, Venice Beach and Mariner's Point were not attended more than 51% of the time. Chick mortality at these three sites, apparently the result of starvation, was likely exacerbated by the prolong absence of parents from nests" (Pg. 18).

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: CDFW recommends a minimum average flow of 1.9 MGD for dry weather closed sand berm conditions to ensure enough open water habitat is present for foraging California least tern. As described in our DEIR comment letter (April 22, 2019), 1.9 MGD will support an open water habitat that will also benefit steelhead and tidewater goby to avoid predation and ensure that water is flowing during dry weather periods to dilute contaminants from surface runoff and groundwater upwelling.

Mitigation Measure #2: As described in our DEIR comment letter (April 22, 2019), CDFW recommends that focused surveys for avian species be conducted with focus on identifying special status species such as California least tern, western snowy plover, southwestern willow flycatcher, least Bell's vireo, yellow warbler, yellow chat, and all raptor species. CDFW recommends that avian surveys be conducted by a qualified ornithologist prior to adoption of the final EIR to identify foraging and nesting avian species that are present within: 1) the SCRE; and, 2) upstream of the SCRE adjacent to the proposed groundwater pumping well sites along the Santa Clara River. Focused species-specific surveys should consider seasonal variations and be conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable.

Mitigation Measure #3: CDFW recommends that California least tern breeding surveys be conducted by a qualified ornithologist to document the successful nesting of

California least terns prior to discharge reductions, and during the discharge reductions for at least 5 years. This survey data shall include quantifying breeding numbers, and nesting success for each breeding colony. Factors determining breeding success, such as predation, starvation, or egg and chick abandonment shall be recorded. with This survey data should be included in the MAMMP annual report and be provided to CDFW, USFWS, and SWRCB.

Comment #4: Habitat Restoration and Mitigation

Issue: CDFW disagrees with the City's position that the loss of habitat acreage that supports sensitive species does not require mitigation because of the propose net benefits of the project. As described in our DEIR comment letter (April 22, 2019), one example to offset loss of habitat acreage is arundo (*Arundo donax*) removal around the periphery and within the SCRE which would promote an overall increase in habitat quality for nesting birds.

Recommended Potentially Feasible Mitigation Measure: As described in our DEIR comment letter (April 22, 2019), to offset the loss of habitat acreage that supports sensitive species, CDFW recommends that the City commit to Arundo (*Arundo donax*) removal around the periphery and within the SCRE to promote overall increase in habitat quality for nesting birds as compensatory mitigation for the City's proposed changes to effluent discharge to the SCRE.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife and assessment of CEQA filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the lead agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

CONCLUSION

CDFW appreciates the opportunity to comment on the FEIR for the Ventura Water Supply Project to assist the City of Ventura in identifying and mitigating Project impacts on biological resources. For any questions regarding this letter and further coordination on these issues, please contact Mary Ngo at (562) 342-2140 and Mary.Ngo@wildlife.ca.gov.

Sincerely,

Erinn Wilson
Environmental Program Manager I

ec: CDFW
Dolores Duarte, Executive Secretary (San Diego)
Mary Ngo, SES-Specialist (Los Alamitos)

Chris Dellith, U.S. Fish and Wildlife Biologist (Ventura)
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Brittany Struck, National Marine Fisheries Service
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state.clearinghouse@opr.ca.gov

REFERENCES

CDFW. 2019. California Natural Diversity Data Base (CNDDB). (https://www.wildlife.ca.gov/data/cnddb)

Frost, N. 2016. California Least Tern Breeding Survey, 2015 season. California Department of Fish and Wildlife, Wildlife Branch, Nongame Wildlife Program Report, Sacramento, CA. (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=122436)

Frost, N. 2017. California least tern breeding survey, 2016 season. California Department of Fish and Wildlife, Wildlife Branch, Nongame Wildlife Program Report, 2017-03. Sacramento, CA. 20 pp + Appendices.

Stillwater Sciences. 2018. City of Ventura Special Studies – Phase 3: assessment of the physical and biological conditions of the Santa Clara River Estuary, Ventura County, California. Final Report. Prepared by Stillwater Sciences, Berkeley California for City of Ventura, California. February

Woods, D.M. 1995. Aspects of California Least Tern Breeding Biology: Chick Feeding Rates and Their Relationship to Fledging success, and The Spatial Distribution of Nests in A Breeding Colony. UCLA: Los Angeles. (https://shareok.org/bitstream/handle/11244/11650/Thesis-2000-W894a.pdf?sequence=1)

Heal the Bay

WISHTOYO
CHUMASH FOUNDATION

January 6, 2020

Ms. Renee Purdy, Executive Officer
Regional Water Quality Control Board
Los Angeles Region
320 W 4th Street, Suite 200
Los Angeles, CA 90013

Sent via email to: losangeles@waterboards.ca.gov and raul.medina@waterboards.ca.gov

RE: WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF VENTURA - VENTURA WATER RECLAMATION FACILITY, VENTURA COUNTY DISCHARGE TO THE SANTA CLARA RIVER ESTUARY VIA WILDLIFE PONDS VIA OUTFALL 001 (ORDER R4-2020-XXX; NPDES NO. CA0053651).

To Ms. Purdy:

Heal the Bay is a non-profit environmental organization with over 30 years of experience and 15,000 members dedicated to making the coastal waters and watersheds of Greater Los Angeles safe, healthy and clean. Wishtoyo Foundation ("Wishtoyo" dba Wishtoyo Chumash Foundation) is a Native-led non-profit whose mission is to protect the culture of Chumash Native Americans and indigenous Peoples, and the environment on which all people depend. Wishtoyo's Ventura Coastkeeper Program works to protect waterways and their beneficial uses in Ventura County. On behalf of Heal the Bay and Wishtoyo, we respectfully submit the following comments on the Waste Discharge Requirements for the City of Ventura – Ventura Water Reclamation Facility, Ventura County Discharge to the Santa Clara River Estuary via Wildlife Ponds via Outfall 001 (Tentative Permit).

- **Although we would like to see reduction of the discharge of effluent from the Ventura Water Reclamation Facility (VWRF) to the Estuary to a continued discharge level (CDL) of 0-0.5 million gallons per day (MGD) as soon as possible to protect the Santa Clara River Estuary's (Estuary's) native and endangered species, ecological health, and natural beneficial uses, given the concerns of the resource agencies, we support the phased approach to reach the final CDL of 0-0.5 MGD by no later than 2030, as outlined in the Tentative Permit.**
- The Permit should provide an opportunity for all interested Resources Agencies, Wishtoyo, and Heal the Bay to provide comment on the Transition Plan; the Pre-Construction Monitoring and Assessment Program; and the Post-Construction Monitoring, Assessment and Adaptive Management Plan (MAAMP) for the Los Angeles Regional Water Quality Control Board (Regional Board) Executive Officer to review prior to approval of any of these Plans.
- We support numeric toxicity effluent limits and the use of the test of significant toxicity (TST) statistical analysis, but the Permittee must immediately initiate a toxicity reduction evaluation (TRE) in response to a chronic toxicity violation.
- Samples that are not detected (ND) or detected but not quantified (DNQ) should be properly incorporated into multiple sample analyses.
- Reporting for anticipated non-compliance or modifications cannot lead to unenforced violations of water quality standards.
- When no sample is taken and no reasonable justification is provided, a monitoring violation

must be accordingly determined, with appropriate enforcement action.
These comments are discussed in further detail below.

Although we would like to see reduction of the discharge of effluent from the VWRF to the Estuary to a CDL of 0-0.5 million gallons per day (MGD) as soon as possible to protect the Estuary's native and endangered species, ecological health, and natural beneficial uses, given the concerns of the resource agencies, we support the phased approach to reach the final CDL of 0-0.5 MGD by no later than 2030, as outlined in the Tentative Permit.

In 2012, Heal the Bay and Wishtoyo entered into a settlement agreement with the City of Ventura (City) to address the discharge of treated wastewater to the Estuary, which negatively impacts the ecological health of the Estuary by increasing the load and concentration of contaminants of emerging concern and of nutrients, which can cause eutrophic conditions; by raising surface water levels, which contributes to unseasonal Estuary berm breach events; by reducing the natural salinity levels, which creates favorable conditions for non-native species that prey on and out-compete the Estuary's native and endangered species and also reduce the ecological health of the Estuary; and by reducing habitat quality for native listed bird species that rely on the Estuary.

As per the opinion of the Technical Review Team (TRT) and the Scientific Review Panel (SRP), best science demonstrates that to adequately protect the Estuary's native and endangered species (including Southern California Steelhead, Tidewater Goby, California Least Tern, and the Western Snowy Plover) and to restore these species' habitat, the discharge of effluent from the VWRF to the Estuary must be reduced to 0-0.5 MGD as soon as possible, with a discharge of 0 MGD to be achieved depending on the results of adaptive management. Now that extensive and rigorous research has been completed to identify the necessary CDL based on the best available science, we would like to see reduction of the discharge to a CDL of 0-0.5 MGD as soon as possible. However, we understand that the resource agencies have expressed concerns about the reduction of effluent discharge below a CDL of 1.9 MGD. Although we would like to see reduction of the discharge to a CDL of 0-0.5 MGD as soon as possible, which is needed to protect the ecological health of the Estuary, the Estuary's native endangered species, and the Estuary's natural beneficial uses, given the concerns of the resource agencies, we support the phased approach to effluent discharge reduction as outlined in the Tentative Permit, which will begin with a reduction of the discharge to a CDL of 1.9 MGD in 2025, followed by adaptive management and additional discharge reduction to 0-0.5 MGD by no later than 2030.

The Permit should provide an opportunity for all interested Resources Agencies, Wishtoyo, and Heal the Bay to provide comment on the Transition Plan, the Pre-Construction Monitoring and Assessment Program, and MAAMP for the Regional Board Executive Officer to review prior to approval of any of these Plans.

But for one request for modification, Wishtoyo and Heal the Bay support the approach and language in the Permit section: Special Studies, Technical Reports and Additional Monitoring Requirements, including for the Transition Plan, the Pre-Construction Monitoring and Assessment Program, and MAAMP. We request that the Permit should provide an opportunity for all interested Resources Agencies, Wishtoyo, and Heal the Bay to provide analysis on the Transition Plan, the Pre-Construction Monitoring and Assessment Program, and MAAMP for the Regional Board Executive Officer to review

prior to approval of any of these Plans. Such a process is needed to ensure sufficient information is collected for the Regional Board and all resource agencies to permit/achieve the SRP's and TRT's recommendation to reduce the discharge of effluent from the VWRF to the Estuary to 0-0.5 MGD. Such input prior to Executive Officer approval is necessary because these critical plans and special studies, unlike in prior NPDES permits for the VWRF, are not detailed in this draft permit and require agency, Wishtoyo, and Heal the Bay input and review prior to Regional Board approval to ensure their adequacy. To ensure that this process occurs, we request the following language changes be made to the Tentative Permit:

Page 16, Section VI.C.2.a.

"The Transition Plan, including plans for preparation of the MAAMP, will be shared with, and analyzed by the Regional Water Board and all interested Resources Agencies, as well as Wishtoyo Foundation (Wishtoyo) and Heal the Bay prior to Executive Officer approval."

Pages 16 and 17, Section VI.C.2.a.(a)

"The discharger shall coordinate preparation of the monitoring and assessment program with the Regional Water Board, USFWS, NMFS, ~~and~~ CDFW, Wishtoyo, and Heal the Bay. The plan must be submitted to the Regional Water Board after being shared with, and analyzed by the Regional Water Board and all interested Resources Agencies, as well as Wishtoyo Foundation (Wishtoyo) and Heal the Bay, 180 days after the effective date of the permit and shall be implemented upon approval of the Executive Officer."

Page 17, Section VI.C.2.a.(b)

"The discharger shall coordinate preparation of the MAAMP with the Regional Water Board, USFWS, NMFS, ~~and~~ CDFW, Wishtoyo, and Heal the Bay."

AND

"The ~~plan~~ MAAMP, which shall be implemented upon approval of the Executive Officer, must be submitted to the Regional Water Board after being shared with, and analyzed by the Regional Water Board and all interested Resources Agencies, as well as Wishtoyo Foundation (Wishtoyo) and Heal the Bay, as soon as possible, but at the latest as an attachment to the next Report of Waste Discharge, which is due six (6) months prior to the expiration of this NPDS Permit."

We support numeric toxicity effluent limits and the use of the TST statistical analysis, but the Permittee must immediately initiate a TRE in response to a chronic toxicity violation.

We support numeric toxicity effluent limits and the TST statistical analysis.

The TST statistical analysis provides an unambiguous "pass" or "fail" measurement of a test concentration's toxicity, and its low false positive and false negative rates provide more statistical power to correctly identify a test concentration as toxic or non-toxic. Although the TST statistical analysis is not promulgated, there is United State Environmental Protection Agency guidance on the TST statistical

analysis, which has withstood vigorous peer review.[1] Considering the pace at which policy changes can be made at a federal or state level, we applaud the Regional Board for incorporating an analysis approach that is scientifically robust and protective of California aquatic ecosystems. We strongly support the role of the reversed acute and chronic null hypotheses to provide dischargers with an incentive to improve the precision of test results by improving laboratory procedures and/or by increasing the number of replicates used in a given toxicity test.

The Permittee must immediately initiate a TRE in response to a chronic toxicity violation.

To protect aquatic life, regional Basin Plans include narrative objectives allowing for no toxicity because toxic conditions do not need to persist to have a devastating effect on critical species. Objectives within the Clean Water Act and the State Implementation Policy both echo this goal to eliminate toxicity. Given these objectives, there should be strict enforcement capabilities for exceedances of toxicity limits in the Tentative Permit, as well. The Regional Board currently treats an exceedance of toxicity objectives not as an enforceable violation, but as a trigger for an accelerated monitoring program, which has been proven to be an ineffective method of addressing toxicity.[2] If the Permittee receives a failing test result, they must be considered in violation of the limitation. At a minimum, the use of accelerated monitoring to determine violation or compliance must be conducted within a single calendar month. For this case, we would recommend that the Tentative Permit require that two out of three samples taken within a calendar month receive a TST "pass" to receive no toxicity violation, or that two out of three samples taken within a calendar month receive a TST "fail" to receive a toxicity violation. The two samples (or three, if necessary) must be collected within a single calendar month to make a timely determination of violation or compliance. Additionally, the Permittee must immediately initiate a TRE in response to a chronic toxicity violation, which would be aligned with the requirements of the draft statewide toxicity provisions.[3]

Sources of chronic toxicity in receiving waters must be identified and remediated.

As currently written in the Tentative Permit, "[i]f the chronic toxicity median monthly threshold of the receiving water at both upstream and downstream stations is not met, but the effluent chronic toxicity median monthly effluent limitation was met, then accelerated monitoring need not be implemented" (Attachment E, Page E-18, Footnote 20). However, if chronic toxicity is observed in receiving waters, the sources of the toxicity must be identified and remediated in order to protect in-stream aquatic health. If the Permittee is able to determine that the discharge from the VWRF is not causing or contributing to the in-stream chronic toxicity, we agree that the Permittee shall not be responsible for the identification

[1] Fox, J.F., D.L. Denton, J. Diamond, R. Stuber. 2019. *Comparison of False-Positive Rates of 2 Hypothesis-Test Approaches in Relation to Laboratory Toxicity Test Performance.* Environmental Toxicology and Chemistry, v. 9999, p. 1-13. https://setac.onlinelibrary.wiley.com/doi/abs/10.1002/etc.4347

[2] Stevenson, C., K. James, M. Gold. 2009. *License to Kill: The Ineffectiveness of Toxicity Testing as a Regulatory Tool in the Los Angeles Region, 2000-2008.* https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/docs/comments/cmmnts012111/mark_gold_attachment.pdf

[3] California State Water Resources Control Board. *First Revised Draft: Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California."* 2019. https://www.waterboards.ca.gov/water_issues/programs/state_implementation_policy/docs/toxicity_2019_provisions_1strevdraft.pdf

of the source of toxicity. However, we recommend that the Regional Board clearly identify, in the permit, the entity that shall be responsible for identifying the source of the chronic toxicity.

Samples that are ND or DNQ should be properly incorporated into multiple sample analyses.

As currently written in the Tentative Permit, "[w]hen 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 DNQ or ND, the Permittee shall compute the median in place of the arithmetic mean…" (Page 26, Section VII.B.). This approach potentially excuses the exceedance of water quality objectives as long as there are enough ND or DNQ sample results. We recommend that the Regional Board require that the Permittee report either the actual test result or the method detection limit for each sample, as described in the California State Water Resources Control Board ND/DNQ Guidance,[4] and use this data to compute the arithmetic mean when determining compliance with a measure of central tendency of multiple sample analyses.

Reporting for anticipated non-compliance or modifications cannot lead to unenforced violations of water quality standards.

As currently written in the Tentative Permit, "[t]he Discharger shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR section 122.41(l)(2).)" (Attachment D, Page D-7, Section V.G.). We suggest the following clarifying language be added to Attachment D, section V.G., to ensure that the Regional Board review the proposed changes/anticipated noncompliance and determine if this is allowable, and to ensure that other parties should be able to review the proposal and provide comments on the potential impact the proposal will have on in-stream aquatic health:

"The Permittee shall ~~give advance notice to the~~ submit a plan for public review and Regional Water Board approval of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR section 122.41(l)(2).) Reporting anticipated noncompliance does not preclude enforcement action by the Regional Water Board in the event of effluent limit violations under this permit during the period of anticipated noncompliance.

When no sample is taken and no reasonable justification is provided, a monitoring violation must be accordingly determined, with appropriate enforcement action.

For any one calendar month during which no sample (daily discharge) is taken and no reasonable justification is provided, a violation must be accordingly determined for that calendar month, with appropriate enforcement action.

As currently written in the Tentative Permit, "[f]or any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to the AMEL" (Page 26, Section VII.C.). However, it is important that samples are taken on schedule as required by the permit, unless there are safety concerns, or sampling was otherwise not possible. We understand that skipping a sampling event without reasonable justification is usually

[4] California State Water Resources Control Board. *ND/DNQ Guidance.* file:///C:/Users/amoe/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/QMW8J0O4/nd_dnq_guidance.pdf

determined as a monitoring violation rather than a water quality violation, and request that clarifying language be added to the permit. We recommend the following language be added to the first paragraph under Section VII.C. of the Tentative Permit:

"For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to the AMEL. If no reasonable justification (i.e. unsafe sampling conditions, no discharge, etc.) is provided in the absence of a sampling event for a calendar month, the associated monitoring report shall be rejected. If a monitoring report Is not submitted and accepted, a violation shall be determined pursuant to Water Code section 13385(h)(i) and section 13385.1(a)(1)."

For any one calendar week during which no sample (daily discharge) is taken and no reasonable justification is provided, a violation must be accordingly determined for that calendar week, with appropriate enforcement action.

As currently written in the Tentative Permit, "[f]or any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week with respect to the AWEL" (Page 27, Section VII.D.). However, it is important that samples are taken on schedule as required by the permit, unless there are safety concerns, or sampling was otherwise not possible. We understand that skipping a sampling event without reasonable justification is usually determined as a monitoring violation rather than a water quality violation, and request that clarifying language be added to the permit. We recommend the following language be added to the first paragraph under Section VII.D. of the Tentative Permit:

"For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week with respect to the AWEL. If no reasonable justification (i.e. unsafe sampling conditions, no discharge, etc.) is provided in the absence of a sampling event for a calendar week, the associated monitoring report shall be rejected. If a monitoring report Is not submitted and accepted, a violation shall be determined pursuant to Water Code section 13385(h)(i) and section 13385.1(a)(1)."

For any 180-day period during which no sample (daily discharge) is taken and no reasonable justification is provided, a violation must be accordingly determined for that 180-day period, with appropriate enforcement action.

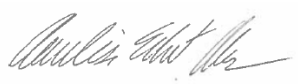
As currently written in the Tentative Permit, "[f]or any 180-period during which no sample is taken, no compliance determination can be made for the six-month median effluent limitation" (Page 28, Section VII.H.). However, it is important that samples are taken on schedule as required by the permit, unless there are safety concerns, or sampling was otherwise not possible. We understand that skipping a sampling event without reasonable justification is usually determined as a monitoring violation rather than a water quality violation, and request that clarifying language be added to the permit. We recommend the following language be added to the first paragraph under Section VII.H. of the Tentative Permit:

"For any 180-day period during which no sample (daily discharge) is taken, no compliance determination can be made for the six-month median effluent limitation. If no reasonable justification (i.e. unsafe

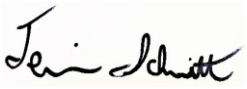
sampling conditions, no discharge, etc.) is provided in the absence of a sampling event within a 180-day period, the associated monitoring report shall be rejected. If a monitoring report Is not submitted and accepted, a violation shall be determined pursuant to Water Code section 13385(h)(i) and section 13385.1(a)(1).”

Thank you for the opportunity to comment on the Waste Discharge Requirements for the City of Ventura – Ventura Water Reclamation Facility, Ventura County Discharge to the Santa Clara River Estuary. We look forward to continuing our collaborative work with the City and with Regional Board staff in order to protect the Estuary from the negative effects of the City’s discharge of effluent. If you have any questions concerning these comments, please contact the undersigned staff.

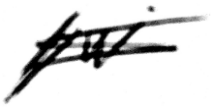
Sincerely,



Annelisa Ehret Moe
Water Quality Scientist
Heal the Bay



Tevin Schmitt
Watershed Scientist
Wishtoyo Foundation



Jason Weiner
Senior Counsel
Wishtoyo Foundation