Heal the Bay

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February 7, 2008

Ms. Tracy Egoscue, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

**Re: Comments on the Tentative Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System Permit (NPDES) – City of San Buenaventura Ventura Water Reclamation Facility (NPDES Permit No. CA0053651) and Tentative Time Schedule Order (TSO) for the Ventura Water Reclamation Facility dated January 7, 2008.**

Dear Ms. Egoscue:

On behalf of Heal the Bay, we submit the following comments on the *Tentative WDRs and NPDES Permit for the City of San Buenaventura Ventura Water Reclamation Facility* ("Tentative Permit" or "Permit") and the *Tentative TSO for the Ventura Water Reclamation Facility* ("TSO") dated January 7, 2008. As requested in the Regional Board's cover letter, we limit our comments to changes in this draft version of the Permit and TSO.

Heal the Bay was in general support of the **previous** version of the Permit. Specifically, we strongly supported the decision to incrementally decrease the Ventura Water Reclamation Facility ("VWRF") discharge to the Santa Clara River Estuary ("SCRE") until there is zero discharge to the Estuary. However due to the significant changes in the Tentative Permit dated January 7, 2008, including the removal of this provision, we now oppose the Permit. We urge the Regional Board to return to the approach outlined in the previous draft that decreases the discharge until there is zero discharge in the Estuary. Our concerns are further outlined below.

**The Regional Board should require that the discharge be removed from the Estuary.**

The VWRF has discharged to the Santa Clara River Estuary ("SCRE" or "Estuary") for approximately forty-five years. This discharge is in direct conflict with the State Water Quality Control Board's *Water Quality Control Policy for the Enclosed Bays and Estuaries of California* ("EBE Policy"), passed in 1974, which mandates that wastewater discharges to estuaries be phased out as soon as practicable. SWRCB Resolution No. 74-43. According to the EBE Policy, exceptions may be granted *only* in the rare circumstance where a regional board finds that the discharge enhances the estuary. In earlier versions of the Permit, Regional Board staff concluded that enhancement was not demonstrated. As a result, the previous draft permit required the incremental elimination of the discharge. However in the Tentative Permit, Regional Board staff backpedals on this decision and reaches no clear conclusion on a determination of enhancement that is required by the EBE Policy. No significant information has been provided to substantiate the change in the Permit or the current Regional Board staff position that not enough information was provided to determine enhancement. The Tentative Permit states:

> "The Board also presently lacks the information necessary to determine what if any negative impacts would occur to the Estuary if the discharge was

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> prohibited, and therefore lacks the current information necessary [to] dispute the previous enhancement finding. The Board has conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge." Tentative Permit at 8.

Clearly, water quality is not being enhanced by the discharge. High nutrient levels, chronic metals exceedances and unknowns about emerging contaminant concentrations in the discharge all continue to be major water quality concerns. These issues have all been described in detail in our previous comment letters. Also on its own merit, the fact that a TSO for nutrients is included in the Permit package clearly demonstrates that the threshold of water quality enhancement is not being met. Based on these facts, the Regional Board has no choice but to conclude that the burden of enhancement has not been met and require the discharge be removed from the Estuary. We urge the Regional Board to return to the approach outlined in the previous draft that decreases the discharge until there is zero discharge in the Estuary. The extensive species monitoring program outlined in the previous draft permit will ensure that sensitive species impacts are not occurring due to this alternation in flow. The previous permit allowed modification in discharge reduction requirements based on monitoring results that demonstrate ecological harm.

**The Regional Board should specify critical elements of a watershed-wide study.**

During the stakeholder process several resource agencies have raised concerns about potential impacts to sensitive species from a decrease in flow to the Estuary. They hold that removing the wastewater discharge may lead to less habitat area and less frequent breaching that could impact the tidewater goby and steelhead trout. Further, they maintain that **any** decrease in the current average daily discharge of 9 mgd would be detrimental, despite that fact the only Regional Board determination of enhancement was based on a discharge volume of 5.6 mgd. However, stakeholders such as the Fish and Wildlife Service and NOAA Fisheries have not provided studies such as a baseline flow study or any other evidence that support this hypothesis. The Tentative Permit requires that the discharger complete a "watershed-wide" study that addresses many of the flow concerns and data gaps. We agree that such a study is needed. The Regional Board should specify the components that need to be explored in the study. Specifically, the study must 1) quantify sources of flow to the Estuary; 2) determine the optimal flow and volume in the Estuary; 3) determine the optimal spatial distribution for aquatic habitat in the Estuary; and 4) quantify upstream uses that reduce the natural flow to the Estuary. The study must be completed in 2 years. The watershed-wide study will be able to inform the Regional Board and the resource agencies about necessary flows to maintain species habitat and any upstream flow diversions and uses that are reducing these necessary flows

**The Regional Board should remove the discharge cap of 9 mgd and require a reduction in flow with the first milestone of 5.6 mgd to be met within the 5 year permit term.**

The Tentative Permit sets a cap on allowable discharge to 9 mgd, until the watershed-wide study is completed. However, there is no reason to maintain the current flow in the Estuary while the study is being completed. As mentioned above, there has been no scientific information provided that supports maintaining this discharge volume of 9 mgd. In fact, the current permit

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states that "[t]he running 30-day average volume of treated wastewater discharged to the Santa Clara River shall not be less than 5.6 mgd." Of note, 5.6 mgd is based on the results of the 1976 Enhancement Study conducted by the Discharger. Further, the SCE Policy requires the discharge to be removed from the Estuary as enhancement was not demonstrated. Thus instead of setting a cap at 9 mgd, at a minimum the Regional Board should require that the discharge volume be reduced to 5.6 mgd within the 5 year permit term.

**The Regional Board should consider including feasibility study and conceptual design requirements for a treatment wetland system in the Permit.**

Several creative solutions have been proposed during the stakeholder process that may alleviate many stakeholder concerns. At the stakeholder meeting on January 29, 2008, a significant amount of discussion took place regarding the installation of a treatment wetlands system similar to that used to treat the City of Arcata's discharge. A properly designed and sited treatment wetlands system could alleviate concerns about nitrogen loading and attenuation in the Estuary and could "polish" the effluent without reducing flows to the Estuary. Of note, wetland treatment has been shown to help in the partial removal of some pharmaceuticals, surfactants, and fire-retardants (ibuprofen, gemfibrozil, alkylphenol ethoxylates, *tris*(3-Chloropropyl) phosphate, and *tris*(2,3-Dichloropropyl) phosphate ).[1] In addition, constructed treatment wetlands have also been shown to remove up to 100 percent of some pesticides.[2] Also there would likely be many side-benefits from the system such as reducing flooding problems and creating habitat for sensitive species such as birds. Of note, the City owns a large parcel of land (approximately 60 acres) adjacent to the VWRF. The Regional Board should consider adding language in the Permit that requires the completion of a feasibility study within the next year and conceptual design and sizing of the wetland system within three years. Pending the results of the watershed study, permitting and environmental review should be completed and construction should be initiated by the end of the life of the permit.

**Miscellaneous**

***The Regional Board should require additional effluent monitoring, if the discharge exceeds 14 mgd.***

The Tentative Permit states that "[t]he maximum daily flow…shall not exceed the design capacity of 14 MGD. This prohibition is not applicable during wet weather storm events." Tentative Permit at 17. Although this prohibition does not apply during major storm events, the discharger must still meet effluent limitations during these periods. Thus, the Regional Board should require additional effluent monitoring of all parameters listed in the Monitoring and Reporting program on each day that discharge exceeds the 14 MGD capacity.

[1] Gross et al. 2004. Occurrence and fate of pharmaceuticals and alkylphenol ethoxylate metabolites in an effluent-dominated river and wetland. *Environ Toxicol and Chem* 23(9): 2074-2083.
[2] Schultz R, Peall SKC. 2001. Effectiveness of a constructed wetland for retention of nonpoint-source pesticide pollution in the Lourens River catchment, South Africa. *Environ Sci Technol* 33:973-980.

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***The Regional Board should reevaluate the proposed WER to determine if the study appropriately accounts for variability in rainfall and water quality conditions. This information should also be available for public review.***

The Tentative Permit includes modified copper effluent limitations. Staff bases these modifications on a water effects ratio ("WER") study conducted by the discharger and summarized in the *Updated Enhancement Study of the Santa Clara River Estuary*. The results of the copper testing are only very briefly summarized in this study. It is unclear how Regional Board staff sufficiently evaluated the proposed WER based on the very limited amount of information provided in this study. Is there another report that the Regional Board evaluated?

There are several critical elements of WER development that are not sufficiently described in the study. For instance, the report does not answer any questions about sampling conditions. For example, were wet and dry weather samples collected? Was 2004/2005 an appropriate year to take samples? The study design must account for variability in water quality and rainfall conditions. Ideally, four sampling events (2 wet and 2 dry) per year over five years are needed to develop a WER that accurately reflects site specific conditions. Further, it is unclear why a WER of 1.77 was chosen, when there is a calculated WER of 1.58 on September 28, 2004. Why was 1.58 not selected? In order to be protective, the lowest calculated WER should be used. Also, was only one species (*Mytilus* sp.) chosen for testing? Using only one species does not appropriately account for varying sensitivities among species that inhabit the Lagoon. The Regional Board should reevaluate the proposed WER with these questions in mind, as the chosen value must be adequately protective and the Regional Boards action sets precedent.

***The Regional Board should revise the Sediment Monitoring Program to include monitoring sites that would likely be the most impacted by the discharge and a reference site.***

The Monitoring and Reporting Program calls for a local benthic trends survey at three monitoring stations. We strongly support benthic community monitoring. However, it is unclear if the selected monitoring locations are in areas of the Estuary that would likely have the greatest impact from the discharge. Also, site 003 is not included on the map. How were these sites selected? Also, ideally there would be a fourth site far away from the discharge that serves as a reference location for comparison purposes. Has a reference site been selected? The Regional Board should clarify these elements in the Monitoring Program.

***The Regional Board should require sediment testing to at least a one-foot depth.***

The sediment/chemical monitoring section calls for a grab sample to be taken from the top two centimeters of sediment. While it is true that the surficial sediments are the primary exposure pathway, limiting the scope to sediments in the top 2 cm is completely inappropriate. Examining just the very top layer of sediment does not give sufficient insight on the ecological health of the waterbody. Many benthic species are known to inhabit much deeper sediments. Also sediments can be dynamic and can move and be buried due to a single storm event. Thus, the Regional Board should require core samples of at least a foot.

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If you have any questions or would like to discuss any of these comments, please feel free to contact us at (310) 451-1500.

Thank you for your consideration of these comments.

Sincerely,

Kirsten James, MESM
Water Quality Director

Mark Gold, D.Env
President