United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
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Ventura, California 93003

IN REPLY REFER TO:
PAS 1191.1303.7292

May 30, 2007

Blythe Ponek-Bacharowski
Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, California 90013

Subject: Comments on the Issuance of National Pollutant Discharge Elimination System (NPDES) Permit No. CA0053651, Ventura Water Reclamation Facility, Ventura County, California.

Dear Ms. Ponek-Bacharowski:

We are writing to follow up on a meeting attended by Jeff Phillips of my staff on May 8, 2007, with you, representatives from your office, the City of Ventura (City), the City's consultants, the California Department of Parks and Recreation (State Parks), Heal the Bay, and other agencies and organizations. At issue are Order number R4-2007-XXXX (Order) and the National Pollutant Discharge Elimination System permit number CA0053651 (NPDES) regarding discharge of tertiary treated wastewater to the Santa Clara River estuary via outfall number 001. Currently, the City discharges approximately 8 millions gallons of tertiary treated waste water per day directly into the Santa Clara River estuary. Your Order consists of requiring the City to decrease the discharge by 1 million gallons per day per year so that in 8 years from September 1, 2007, discharges are completely eliminated. We are concerned about the potential effects of the Order and NPDES conditions on the federally endangered tidewater goby (*Eucyclogobius newberryi*).

The U.S. Fish and Wildlife Service's (Service) responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act prohibits the taking of any federally listed endangered or threatened species. Section 3(18) of the Act defines "take" to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Service regulations (50 CFR 17.3) define "harm" to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species. Exemptions to the prohibitions against take may be obtained through the

Service in two ways: through interagency consultation for projects with Federal involvement pursuant to section 7, or through the issuance of an incidental take permit under section 10(a)(1)(B) of the Act.

We have the following comments and concerns regarding the wastewater discharge requirements for the City of Ventura – Ventura Water Reclamation Facility into the Santa Clara River estuary:

We believe the current state of the Santa Clara River estuary is not an ideal condition. In the upper and middle watershed, large volumes of water are removed through diversions and groundwater pumping, leading to a lack of river inflow to the estuary during most of the year. Furthermore, when enough stormwater enters the watershed to flow to the estuary, the runoff is often of very low quality due to land uses higher in the watershed (Enhancement Study 2005). Consensus amongst the various agencies and organizations is that the estuary should be returned to a more "natural" condition. However, we believe the wastewater discharge the City provides to the estuary is likely simulating a more 'natural' state than no discharge at all because it replaces water removed from the Santa Clara River upstream, before it reaches the estuary.

We understand that the wastewater discharge is elevated in nitrate, copper and otherwise not of great quality; however, toxicity testing of the wastewater discharge shows very little toxicity, probably less than the river input. Furthermore, that while approximately 10 percent of the Santa Clara River estuary water and sediment samples exhibited measurable effects to water fleas (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), bivalves (*Mytilus galloprovincialis*), amphipod (*Eohaustorius estuaries*), and/or green algae (*Selenastrum*) in laboratory toxicity testing, those samples did not appear to be correlated to influence from the Ventura Water Reclamation Facility discharge, or to excess copper concentrations specifically (Enhancement Study 2005).

Under current conditions, the estuary breaching regime in summer may not be significantly different than historic conditions when the river likely provided water input through much of the dry season. The water budget presented at the May 8, 2007, meeting and posted on the Regional Water Quality Control Board (RWQCB) website (RWQCB 2007) shows that if wastewater discharge is reduced to less than about 5 million gallons per day, the estuary will no longer breach during the dry season. The water budget analysis concluded that the estuary will remain dominated by freshwater (due to groundwater input), which could be beneficial for the tidewater goby. Frequent breaching of the estuary mouth can stress tidewater gobies by causing water fluctuations that compromise shallow breeding areas, and by introducing rapid spikes in salinity as ocean water enters the estuary; however, tidewater gobies are adapted to such fluctuations and have fared well in the Santa Clara River estuary for over 45 years under the current conditions. Additionally, it is possible by eliminating wastewater discharge to the estuary, which results in less frequent or no breaching, may favor invasive species, such as the African clawed frog (*Xenopus laevis*). The African clawed frog population,

which preys on tidewater gobies in the estuary, could expand in a predominantly freshwater system.

Regular breaching helps to flush the lagoon of non-native predators and is also likely to reduce harmful temperature increases and algae blooms in the estuary. Some risk exists that if the estuary mouth remains closed, and a significant algal bloom occurs (the risk depends somewhat on the levels of nutrients in the groundwater), then a collapse in dissolved oxygen concentrations could occur and potentially trigger a catastrophic die-off of fish, including tidewater gobies, and other wildlife. A monitoring plan, even a good one, would probably not be able to anticipate and head off an event like this.

During the May 8, 2007, meeting it became clear that a more integrated planning approach to the wastewater discharge specifically, and the estuary management in general, is sorely needed. The estuary is a very complex system and proposed changes to the wastewater discharge could potentially impact:

- Groundwater levels; which can have an impact on flooding in the adjacent State Parks campground, nearby wetland restoration projects, agricultural operations and drainage, and McGrath Lake;

- Flooding dynamics, sediment deposition patterns, and breaching patterns. Breaching patterns have a direct effect on the biology of the estuary including salinity levels, surface water elevations, estuary water temperature, buildup of algae, and associated effects on dissolved oxygen; and

- Tidewater goby and steelhead habitat and recovery efforts.

Managing the estuary based on any single factor without considering the others, whether it be done based on water quality standards, or endangered species protection and recovery, or protection of the State Parks campground from flooding, or quality of the ocean water outside of the estuary mouth, is likely to result in a ripple of unintended consequences to the other components of the system. We recommend that the long term decision of how to manage the wastewater discharge and the estuary in general, be considered by a larger body of stakeholders that can develop recommendations, which take into account the entire physical, recreational, and biological watershed system. We recognize that you need to issue a permit quickly for the next 5-year discharge permit cycle, but that permit could require a more comprehensive planning process that would come up with solutions and recommendations for the next 5-year permit; solutions that would address the function of the watershed and estuary as a whole.

Based on the current and historical status of tidewater gobies in the Santa Clara River estuary, we believe that under current conditions in the watershed, the wastewater discharge provides conditions that are beneficial to this population of tidewater gobies. The discharge channel, with its deeper low-salinity water and sheltered side channel

protected from floods and currents during estuary breaches, is an important refuge for tidewater gobies and may play a pivotal role in re-populating the estuary after large disturbance events. The estuary population of tidewater gobies, in turn, is significant for the recovery of the species as a whole, and is thought to serve as a source of re-colonization for other estuaries in the region where populations may be extirpated by localized disturbance events. While we believe the tidewater goby are currently dependent on the wastewater discharge (for freshwater, breaching cycle / invasive species control, and refuge), the Service would prefer and support a solution that could provide the same benefit, through habitat restoration and water budget management throughout the watershed, without the wastewater discharge.

If you and the City decide to proceed with the ramping down and eventual elimination of the wastewater discharge, we would support an intensive biological monitoring program to measure changes in the estuary system and impacts to tidewater goby, migratory birds, and other wildlife. Part of the monitoring process should include opportunities to actively seek habitat enhancements. Furthermore, if the Order and NPDES permit are issued to the City, take of tidewater goby is likely occur and we would recommend that you work with the City to obtain exemption to the prohibitions against take either through interagency consultation pursuant to section 7, or through the issuance of an incidental take permit under section 10(a)(1)(B) of the Act.

We appreciate the opportunity to comment on the Order and NPDES permit, and look forward to working with you to find ways to avoid impacts to listed species. If you have any questions regarding this matter, please contact Chris Dellith or Jeff Phillips of my staff at (805) 644-1766, extension 227 and 368, respectively.

Sincerely,

/s/ Chris Dellith

Steve Henry
Assistant Field Supervisor

cc: Betty Courtney, California Department of Fish and Game
Mark Capelli, NOAA Fisheries
Barbara Fosbrink, California Department of Parks and Recreation
Karen Waln, City of Ventura
Robyn Stuber, Environmental Protection Agency

References Cited

Enhancement Plan. 2005. Comprehensive analysis of enhancements and impacts associated with discharge of treated effluent from the Ventura Water Reclamation Facility to the Santa Clara River estuary toxicology, ecology, and hydrology final report. Prepared by: Nautilus Environmental, 5550 Morehouse Drive, Suite 150, San Diego, California 92121.

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