Item 13
Response to Comments
for
Tentative Order Dated April 27, 2007

City of San Buenaventura
Ventura Water Reclamation Facility
Tentative NPDES Permit and Time Schedule Order

Between October 12, 2000 and December 14, 2006, the Regional Board issued seven individual Time Schedule Orders (TSOs) to the City of San Buenaventura. These TSOs provided time to address the first issue: whether saltwater vs. fresh water California Toxic Rules should be applied for the effluent limitation calculations; to the ultimate issue: whether the discharge from the Ventura Water Reclamation Facility enhances the Santa Clara River Estuary (Estuary).

Regional Board staff met with the City, Resource Agencies and other Interested Parties to review the Updated Enhancement Study and the City's conclusions (meetings held at the Ventura Water Reclamation Facility on March 27, 2006 and June 12, 2006). The concerns were raised with respect to both continuing and eliminating wastewater discharge to the Estuary. There are "Pros" and "Cons", addressed by the City, Resource Agencies and other Interested Parties, on effluent discharge reduction.

The tentative NPDES permit and TSO were transmitted for the public review on April 26, 2007. The comment due was originally set on May 30, 2007, and was extended to July 11, 2007. The Regional Board received written comments both on **maintaining** and **eliminating** the discharge from the Facility. Here are **maintaining** vs. **eliminating** the discharge comments:

Maintaining Discharge – It is important for maintaining federally endangered Tidewater Goby and Steelhead habitat in the Estuary. It was suggested that, under the current conditions in the Santa Clara River Watershed, the City's wastewater discharge to the Estuary provides conditions that are beneficial to the Tidewater Goby and Steelhead population. Here are the summaries of letters, which support maintaining the discharge, from Federal agencies as bellow:

Both the National Oceanic and Atmospheric Administration (NOAA) (See Attachment of Comment Letter dated on July 13, 2007) and Fish and Wildlife Service (FWS) (See Attachment of Comment Letter dated on May 30, 2007) recommend that the Regional Board **allow** the discharge to continue from the Ventura Water Reclamation Facility into the Estuary, because the Estuary has been designated as critical habitat for the endangered tidewater goby and steelhead, and the Estuary is used by both adult and juvenile tidewater goby and steelhead during their life cycle. NOAA and FWS believe that the existing wastewater discharge enhances the aquatic habitat in the Estuary for tidewater goby and steelhead by:

1. providing additional rearing and foraging habitat for both species;
2. providing refuge for both species from predators;

3. enhancing migration flows for steelhead;
4. providing acclimation areas for both juvenile and adult steelhead during the transition to and from salt and freshwater environments;
5. enhancing the quantity and quality of aquatic for both species (The water from the Facility has fewer nutrients and less toxic than upstream water inputs);
6. providing the Estuary with a more 'natural' state than no discharge at all; and,
7. providing regular breaching, which helps to flush the lagoon of non-native predators and is also likely to reduce harmful temperature increases and algae blooms in the Estuary.

In addition, the Regional Board received comment letters from the Ventura Audubon Society (See Attachment of Comment Letter dated on July 9, 2007), United Water Conservation District (See Attachment of Comment Letter dated on May 29, 2007), Entrix (See Attachment of Comment Letter dated on July 10, 2007), Nautilus Environmental (See Attachment of Comment Letter dated on July 9, 2007) **supporting** the discharge, based upon the same reasons as listed above. They also believe that the discharge from the Facility provides the habitat for water fowl and native species, such as southwest pond turtles and red-legged frogs,

Eliminating Discharge – The Regional Board also received comment letters from the California Department of Parks and Recreation (See Attachment of Comment Letter dated on July 9, 2007), a Professor with University of California at Los Angeles (See Attachment of Comment Letter dated on July 3, 2007), and Heal the Bay and Wishtoyo Foundation (See Attachment of Comment Letter dated on June 6, 2007) in favor of **eliminating** the discharge. They believe that the current discharge may:

1. cause eutrophication in the Estuary (The eutrophication results in the low DO, which can stress endangered species and the other organisms in the Estuary);
2. deteriorate water quality in the Estuary (The water quality deterioration can stress endangered species and the other organisms in the Estuary);
3. cause flooding in the campground of the McGrath State Beach; and,
4. cause frequent breaching of the mouth, which can stress tidewater gobies, by causing water fluctuations and introducing rapid spikes in salinity as ocean water enters the Estuary;

Conclusion
Regional Board staff see these issues as a scientific disagreement between all commentors and find merit in all of the comments. Therefore, staff have taken a "middle" approach to slowly ratcheting down the volume of the discharge with vigilant monitoring of the condition of the endangered species.

(The following Table summarizes the comments received from interested parties with regard to the above-mentioned facilities' Tentative Permit. The response to most of these comments associated with the endangered species are undetermined at this time.)

Part 1 – Maintaining Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
Letter from National Oceanic and Atmospheric Administration (NOAA) Dated on July 13, 2007					
1.	Currently, the City discharges approximately 8 millions gallons of tertiary-treated wastewater per day directly into the Estuary. The Board's 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. NMFS is concerned about the potential effects of the Board's order on the endangered Southern California Distinct Population Segment (DPS) of steelhead *(Oncorhynchus mykiss)* and critical habitat for this species, and would like to provide the following comments. NMFS recommends that the Board not take this action because the Estuary has been designated as critical habitat for endangered steelhead, and the estuary is used by both adult and juvenile steelhead during their life cycle. NMFS believes that the existing wastewater discharge enhances the aquatic habitat in the estuary for steelhead by: (1) providing additional rearing and foraging habitat for juvenile steelhead, (2) providing refuge for steelhead from predators, (3) enhancing migration flows for steelhead, and (4) providing acclimation areas for both juvenile and adult steelhead during the transition to and from salt and freshwater environments (Quinones and Mulligan 2005, Boughton et al. 2006). Because surface water diversions and groundwater pumping within the Santa Clara River watershed have reduced the amount of surface flow that enters the estuary to historically low levels, the releases of tertiary treated wastewater into the Estuary are one of the main sources of water for the Estuary during a significant portion of the year, and the releases enhance the quantity and quality of aquatic habitat for steelhead. NMFS believes that endangered steelhead in the Estuary will be adversely affected if the Board approves this Order. Adverse effects would include increasing water temperatures and reducing dissolved oxygen within the estuary to levels which are harmful to steelhead, interfering with migration patterns, and	X		Regional Board staff agree and respect the concern of the resource agencies charged with protection of endangered species. However, many commentors believe that the discharge from the Facility is detrimental to the Estuary and to the endangered species. In an attempt to balance the concerns of the resource agencies and those entities with opposite views, as well as implementing the general prohibition of the Enclosed Bays and Estuary Policy, Regional Board staff have taken a middle-ground approach to permitting this Facility by slowly ratcheting down the volume of discharge to the Estuary incrementally over a 10-year period, slowly phasing out the discharge. Monitoring will ensure that any change to the population of endangered species will be detected before there is harm to the population. There will be a Workshop held at the December 6, 2007 Board Hearing in order to allow Resource Agencies and Interested Parties to present their concerns regarding the Enhancement and Endangered Species issues. The Board will ultimately have to decide whether the discharge from the Facility enhances the Estuary, the tidewater goby, and steelhead habitat, and whether the discharge should be allowed to continue.	None necessary

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	reducing the quantity and quality of aquatic habitat within the estuary. If the Board decides to proceed with this proposed Order, NMFS requests that the Board pursue a section 7 consultation with NMFS through the Environmental Protection Agency to ensure that its action is consistent with the Endangered Species Act and does not adversely effect, or result in unauthorized take of, endangered steelhead.				
Letter from City of San Buenaventura Dated on July 11, 2007					
1.	We are concerned that your agency would consider, as part of the proposed NPDES permit for our Facility a mandated action to withdraw flows from the Estuary that clearly enhance and preserve these very values.	X		However, since there are varying opinions on this matter, Regional Board staff partially agree. See Response to Comment No. 1 to NOAA.	None necessary
2	In particular, we are troubled by the detrimental effects this proposed permit will have on the survival and recovery opportunities for the endangered Tidewater Goby and Southern California Steelhead. Although the Estuary is located in a watershed that has historically been significantly impacted by human activity, currently, the Estuary is thriving in comparison to many others in Southern California. For example, the Santa Clara Estuary goby population is a primary source for the U.S. Fish and Wildlife Service's efforts to repopulate the species in other Southern California estuaries. The current environmental values within the Estuary are directly dependent on continued flows due to the existing condition of the watershed.	X		See Response to Comment No. 1 to NOAA.	None necessary
3.	It appears that well-intentioned advocates for the environment are rigidly and narrowly interpreting laws and policies instead of applying them holistically and carefully to take into account specific local environmental impacts. We respectfully disagree with the assertion by Heal the Bay that the Board must act to remove the discharge from the estuary under provisions of the State Water Resources Control Board Policy for the Enclosed Bays and Estuaries of California. We can appreciate the complexity of law and regulation that bear on this permit process. They parallel the complexity of the Estuary	X		See Response to Comment No. 1 to NOAA.	None necessary

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	environment itself and make it difficult to identify whether it is possible to act in a way to avoid harming the estuary and the endangered species it supports, as the currently proposed NPDES Permit is certain to do. The complexity of the legal issues and estuary environment gives rise to extremely complex policy decisions for the Board and the City.				
4.	To help us better understand the implications of these laws and regulations, and related policy issues and decisions, we have sought help from legal experts at the firm of Nossaman, Guthner, Knox and Elliott, LLP. Their analysis, (Attachment A), indicates the Board has the authority to take alternative permit actions, consistent with applicable environmental regulations and policies and the City's policy goals, that both preserve the benefits of continuing the discharge to the estuary and conform to the requirements of law.	X		See Response to Comment No. 1 to NOAA.	None necessary
5.	It has also been asserted by Heal the Bay, that rather than enhance, the discharge harms the Tidewater Goby. Out of our great regard for that organization and its director, we have re-examined the scientific studies done that come to quiet different conclusions. Their concerns have caused us to ask again how certain the environmental experts are about the evidence for enhancement and the evidence supporting their conclusions that withdrawal of the discharge will harm the current environmental values and species of the estuary. The experts reasoned response, also attached (Attachments B and C), indicates the concerns raised by Heal the Bay are not persuasive in light of the particular conditions in the Santa Clara River Estuary watershed. The overwhelming body of scientific evidence and opinion remains convincing that the outcome of removing the reclaimed water flows currently supporting the estuary habitat will be an estuary that is smaller and significantly less healthy than it is now. It will host fewer organisms, likely have less diversity, and there is significant risk that its continued viability as critical habitat for endangered and threatened species such as the Tidewater Goby and Southern California Steelhead, will be lost.	X		See Response to Comment No. 1 to NOAA.	None necessary

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6.	Several participants in the study review process have suggested that reclamation should be expanded. We agree that reclamation is beneficial and desirable. Our Ventura Water Reclamation Facility has reclaimed water for irrigation since the 1960's and we continue to do so to the maximum extent allowed by existing permit conditions. While it may be possible to increase reclamation further, the science is clear that diverting all flow from the Estuary to any other purpose, including reclamation, will damage the estuary and its endangered species and habitat.	X		See Response to Comment No. 1 to NOAA.	None necessary
7.	We are aware that a number of measures have been suggested to mitigate the damage that would result from ceasing discharge. They have included redirecting the discharge a short distance upstream so the benefits to the estuary are still obtained without technically discharging to the estuary and potentially reducing upstream diversion of natural river flow. None of these mitigations are without impacts, reducing upstream diversions is not a measure within the City's jurisdiction or control, and worse, the evidence indicates that none provide the same value to the Estuary provided by continuing flows.	X		See Response to Comment No. 1 to NOAA.	None necessary
8.	For example, moving the discharge upstream (what our engineers describe as an "infall" alternative), may avoid having a direct pipe from the wildlife ponds into the estuary, but it accomplishes little else. If implemented, some water losses would occur before flows reach the estuary, requiring larger releases to achieve the same benefit, and the off-channel refuge so critical to the Tidewater Goby currently provided would be gone. In exchange for these lesser benefits, we would expend power to pump water upstream, further burdening our energy systems and increasing the carbon footprint of our wastewater treatment.	x		This is only one of alternatives provided during the meetings with resource agencies, interested parties, and stakeholders. There were always "pros" and "cons" for every single alternative. See Response to Comment No. 1 to NOAA.	None necessary
9.	Similarly, while it may be possible to "take" water from current uses upstream to replace the reclaimed water discharge, that alternative is not within the control of the City as proposed	x		This is only one of alternatives provided during the meetings with resource agencies, interested parties, and stakeholders. There were always "pros" and "cons" for every single alternative. See	None necessary

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	permittee. Further, the alternative raises many water rights and other legal questions we cannot speculate on here. Potential impacts of such an action are easier to grasp. Reducing the diversion of water now supporting the rich agriculture of the Santa Clara River Valley would have broad economic and social impacts for valley communities and Ventura County as a whole. Reductions in diversions at the Freeman Diversion by the United Water Conservation District (United) as suggested during this process has even broader implications for agriculture across the Oxnard Plain and lessens the ability of United to effectively combat saltwater intrusion into the underlying aquifer.			Response to Comment No. 1 to NOAA.	
10.	It is also easy to speculate that water conservation can create enough "new" water in the river system to offset the loss represented by the removal of the discharge. We too are hopeful that conservation technologies will continue to improve over time, but the timing on these future improvements and whether water made available by these improvements would benefit or even reach the estuary is highly uncertain. As a result, the risks posed by this alternative to the estuary are too substantial, given the certainty of environmental harm associated with removal of flows upon the estuary, and the uncertainty surrounding the creation of "new" water both with respect to timing and quantity.	X		This is only one of alternatives provided during the June 12, 2006 meeting with resource agencies, interested parties, and stakeholders. See Response to Comment No. 1 to NOAA.	None necessary
11.	Considering potential environmental impacts of these alternatives to the estuary alone, and disregarding the cost of alternative facilities, the cost of operating these facilities and all the negative social outcomes, we question whether it is prudent to proceed with the present proposal mandating removal of flows from the estuary. In every potential alternative proposed, both the estuary and at least one other environment are degraded. It therefore does not appear reasonable to proceed down this path.	X		Regional Board staff agree the City's concerns with potential environmental impacts of every alternative to the Estuary alone. These alternatives were provided during the meetings with resource agencies, interested parties, and stakeholders. There were always "pros" and "cons" for every single alternative. See Response to Comment No. 1 to NOAA.	None necessary
12.	The City began this current permit renewal process in 2000 by expressing our conviction based on past scientific and technical	X		Since the year of 2001, the City had been very cooperative in conducting a number of studies including Salinity Study, Metal	None necessary

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	evidence that continuing to support the estuary with reclaimed water is essential to maintaining this valuable resource. But we qualified that conviction with our willingness to be shown wrong by newly developed objective scientific studies and evidence addressing specifically the Santa Clara Estuary and watershed, its species and habitats. In preparing to embark on these studies, we heard and included specific questions Board Staff felt were critical to understanding the estuary system and the values and risks associated with either sustaining or stopping the discharge of flows. We invited other interested parties, including Heal the Bay, to review the scope of the proposed analyses and similarly provide their questions to be addressed during the studies and process.			Translator Study, Residence Species Study, Updated Enhancement Study, and Recycled Water Market Study. The results of these studies are still largely inconclusive and have been challenged by the California Department of Parks and Recreation, Heal the Bay, and Wishtoyo Foundation. See Response to Comment No. 1 to NOAA.	
13.	After concluding the studies involved in this process, a new and better understanding of the estuary and of the river system has resulted in underscoring the environmental benefits of supporting the estuary habitat with reclaimed water originally established in 1976. We will be the first to acknowledge that future change will occur. Conservation technology will change, treatment technology will change, our scientific understanding will change and our social and economic priorities will change. Based on the direction of change in water supply and availability apparent today, it will likely be toward less abundant and more costly water. Still, it would be tragic for the estuary if we were to take this action to remove water from the estuary so critical to it's health and the survival of species such as the Tidewater Goby based only on the speculation that the direction of change in water supply conditions will reverse itself and other water will become available to replace the loss.	X		There are opposing operations on this matter. See Response to Comment No. 1 to NOAA.	None necessary
14.	Given the expert conclusions and recommendations that have been submitted to the Board regarding the environmental consequences of the proposed permit, including the opinions of trustee agencies, the City believes it's inappropriate for the Board to take final action on the permit at the upcoming public hearing scheduled for August 9, 2007 (postponed to December 6, 2007). We understand at the meeting the Board will be	X		See Response to Comment No. 1 to NOAA.	None necessary

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	hearing testimony pertinent to the City's discharge, the tentative permit and the tentative Time Schedule Order. The City strongly supports and recommends changing the format of the Board's consideration of this matter on August 9 from that of a permit action to a workshop or study session. This will provide the Board additional time to evaluate how the relevant technical and other commentary can and should inform the Board's decision in developing environmentally prudent permit conditions (see Attachment A, pages 2-3).				
15.	We urge you to reject, as did the framers of the Policy for the Enclosed Bays and Estuaries, the idea that one regulatory size fits all environmental situations. Instead we welcome working collaboratively with you to help us preserve a healthy, vital and essential habitat in the Santa Clara River Estuary.	X		See Response to Comment No. 1 to NOAA.	None necessary
Letter from Ventura Audubon Society, Inc. Dated on July 9, 2007					
1.	We primarily object to the requirement that the discharge to the Estuary be reduced annually until it is eliminated.	X		See Response to Comment No. 1 to NOAA.	None necessary
2.	In a reading of your "Comprehensive Analysis of Enhancements and Impacts Associated with Discharge of Treated Effluent from the Ventura Water Reclamation Facility to the Santa Clara River Estuary" we find fault with the lack of information presented on the bird life that uses the estuary and the potential adverse impact of eliminating the discharge.	X		The waterfowl-monitoring program will be added into the revised Monitoring and Reporting Program, if the Board decides that the discharge from the Facility has to be reduced or eliminated.	Pending
3.	To eliminate the discharge would severely impact the bird life that depends on the Estuary and the wildlife ponds on the current facility. To divert the treated water elsewhere would probably result in the elimination of the wildlife ponds and reduce the standing water in the estuary.	X		See Response to Comment No. 1 to NOAA.	None necessary
4.	On Page 216 no mention is made of the support the discharge gives to species of special concern, specifically the California Least Tern, nor of the support it gives to migratory waterfowl. The current area of the Estuary is approximately 10% of the surface water area present in the late 1800's. Surface waters are vitally important to the California Least	X		The waterfowl-monitoring program will be added into the revised Monitoring and Reporting Program, if the Board decides that the discharge from the Facility has to be reduced or eliminated.	Pending

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	Tern. Currently the 150 adult terns that nest at McGrath State Beach depend on the Estuary and the wildlife ponds for foraging. (Pers. Obs.) This use of the wildlife ponds and the Estuary can be observed daily from mid-May until September. A study I participated in found that terns forage in areas that meet two criteria; calm water and water near the nest sites. The Estuary and the wildlife ponds meet both these requirements. In 2004 Least Terns nesting at McGrath moved their chicks approximately 1/2 mile north along the beach to the south river edge after the chicks hatched so that the "haul distance" was reduced for adults bringing fish to feed the chicks during the 3 weeks between hatching and fledging. This year Least Terns nested on the beach right adjacent to the south bank of the river. Elimination of the wildlife ponds and reduction of the surface area of the Estuary would mean that the nearest calm water would be Ventura Harbor and could result in reduced chick survival or abandonment of the area by Least Terns; These impacts were not considered in your "Comprehensive Analysis".				
5.	Currently the Estuary is an important resting area for California Brown Pelicans. Daily, this summer, there have been over 500 pelicans utilizing the Estuary and adjacent beach. No mention of the impacts on these birds was found in your "Comprehensive Analysis".	X		The waterfowl-monitoring program will be added into the revised Monitoring and Reporting Program, if the Board decides that the discharge from the Facility has to be reduced or eliminated.	Pending
6.	The Estuary is an important wintering area on the Pacific Flyway for migratory shorebirds and waterfowl. Every year the Ventura Audubon Society conducts a Christmas Bird Count. The Estuary and the Wildlife Ponds are counted as a separate sector. Over a 7 year period from 1997 to 2003 census takers found an average of ~100 species represented by an average of 4114 individual birds per count in this sector. Of that 79 species (~80%) represented by an average of 2564 birds per count (62%) were waterfowl and/or shorebirds that are dependent on the ponds and Estuary for resting and food. These numbers are from an approximately 5 hour long survey taken on one day in late December or early January each year. During shorebird migration in August and September the number of shorebirds present can be in the 10,000+ range daily. During waterfowl migration in late November and early December several thousand ducks use the wildlife ponds and the Estuary daily.	X		The waterfowl-monitoring program will be added into the revised Monitoring and Reporting Program, if the Board decides that the discharge from the Facility has to be reduced or eliminated.	Pending

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7.	The wildlife ponds and enhanced surface waters of the Estuary help offset the tremendous loss of habitat for these birds that resulted from development of the area and upstream diversion of surface waters.	X		See Response to Comment No. 1 to NOAA.	None necessary
8.	The elimination of the wildlife ponds and reduction of the discharge to the Estuary would have a severe adverse impact on these migratory and wintering birds. No mention of these impacts was found in your "Comprehensive Analysis".	X		The waterfowl-monitoring program will be added into the revised Monitoring and Reporting Program, if the Board decides that the discharge from the Facility has to be reduced or eliminated.	Pending
9.	The "Comprehensive Analysis" discussed the possibility that discharging effluent to the Estuary might mean the Estuary bar goes out causing temporary drainage of the Estuary. This could be a fortuitous event in August and September as the resultant mudflats would provide foraging habitat for the thousands of migratory shorebirds that use the area as a stopover and their southward migration to wintering areas.	X		See Response to Comment No. 1 to NOAA.	None necessary
10.	The "Comprehensive Analysis" did not find any significant degradation of the water quality or contamination of the Estuary sediments caused by the discharge. The proposed elimination of the discharge to the Estuary appears to be just following a policy and not designed to enhance the Estuary. We are aware of the increased nutrient load that the discharge carries. No consideration was given to discharge upstream that would give time for bio-filtering and maintain the surface water availability for Least Terns and migratory waterfowl.	X		See Response to Comment No. 1 to NOAA.	None necessary
Letter from Entrix, Inc., Dated on July 10, 2007					
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1.	**<u>Tidewater Goby</u>** This federally endangered species has occurred in relatively large numbers for the last ten years or more in the Santa Clara River lagoon and to our knowledge has continuously inhabited the lagoon. It is part of a distinct genetic grouping (the LA/VENTURA Unit of the Recovery Plan) consisting of only three native populations: Ventura River, Santa Clara River, and	X		See Response to Comment No. 1 to NOAA.	None necessary

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	the Ormond Beach lagoon. The populations at Malibu and Topanga creeks were artificially created when fish from the Ventura River were placed into Malibu Lagoon in 1991. Some of the descendents of these apparently dispersed to Topanga Creek where they appeared for the first time about 10 years later. Thus only three native, original populations of the LA/VENTURA Unit exist and the Santa Clara River population is the largest and most robust in this Recovery Unit. Thus it is indispensable for ultimate recovery of this unique genetic unit. Tidewater gobies occur exclusively in coastal lagoons or near stream mouths in larger estuaries like San Francisco Bay. Adapted to the low salinity areas of estuaries, they are isolated by long expanses of coastal marine water separating such estuaries in California's Mediterranean climate regime. They can disperse a few miles upstream of lagoons into low gradient streams like the lower Santa Clara River, but have not been documented to do so in the Santa Clara. They do not willingly enter the marine environment and the evidence indicates that larger juvenile or adult fish can be washed out and occasionally colonize nearby sites, typically less than about 10 miles down coast. All reproduction takes place in coastal lagoons and not in tributary streams or coastal marine waters, even though there is evidence of spawning in a wide variety of salinities in the laboratory. The coastal lagoons are critical to the survival of tidewater gobies.				
2.	**Santa Clara River** The long term historical changes in southern California rivers over the last few hundred years have been documented extensively and have largely reduced the amount of coastal lagoon habitat available at sites like the mouth of the Santa Clara River (Swanson et al. 1990, U. S. Fish and Wildlife Service 2005; Boughton et al. 2006). The combination of Mediterranean climate, storm direction, and extensive sandy sediments carried down by rivers created a system of lagoons closed off to the ocean for most of the dry season. The original	X		See Response to Comment No. 1 to NOAA.	None necessary

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	concentrated winter runoff and brimming groundwater basins kept the coastal lagoons perched higher than the adjacent ocean and maintained relatively low salinities. Tidewater gobies, as well as a great suite of organisms, adapted to and require these habitat conditions to survive. From the earliest European contact, a wide variety of uses developed for the water in the drainage and its removal began very early. By the early 1900s more water was extracted than was available and such overdraft allowed saline water to invade inland and to contaminate wells near the coast. Since that time various efforts directed some flows back into the river to recharge the water table to prevent salt water intrusion. The Ventura Water Reclamation Facility (VWRF) is one of the largest contributors of relatively high quality freshwater to the Santa Clara drainage near the coast and on the balance is beneficial to the population of tidewater gobies.				
3.	**Beneficial Uses** The input of the VWRF affects the lower river in several ways including: 1) size or aerial extent of habitat, 2) depth of the habitat, 3) frequency and intensity of breaching and draining events, and 4) water quality. 1. All the recent studies agree that the VWRF inputs maintain the lagoon in a larger size for most of the dry season than it would be with only the remaining inputs of the now largely appropriated upstream drainage flows. Larger lagoon size maximizes the available habitat for tidewater gobies and undoubtedly has allowed the large populations documented for at least the last 10 years. This size also maximizes marginal habitats that are important as refuges during high winter flows to prevent fish from being washed into the ocean and lost to the population. Many former marginal areas undoubtedly were lost as the river has become progressively constrained between levees down to Harbor Boulevard and the backwater area and outflow channel of the VWRF provides by far the largest such refuge in the	X		See Response to Comment No. 1 to NOAA.	None necessary

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	system today. Other refuge areas on the south side are much smaller and vary depending on the level of the lagoon. In addition they do not have inputs of freshwater to maintain connectivity between refuge and lagoon and are more likely to strand fish after flood waters recede. The refuge area in and near the VWRF are most important during "average" and stronger than normal rainfall years when the majority of the lagoon loses virtually all of its vegetative cover, exposing fish to predation. Our surveys for tidewater gobies in the system have documented individuals all the way up the channel to its outfall from the plant. 2. The greater the lagoon size, the deeper some parts of the lagoon will be and typically a deeper (2 meters or more) central area of the lagoon exists just inside the barrier sand berm. Often higher salinity water can be trapped and will occupy the bottom water layer in these deeper areas and can provide the tidewater gobies a refuge from freshwater predators like African clawed frogs and green sunfish that can be abundant in the lagoon in some years (but are intolerant of marine waters). Tidewater gobies are euryhaline (can tolerate a wide variety of salinities) and can reproduce in waters of low salinity that also deter these non-native freshwater predators. Saline areas also satisfy the needs of young steelhead for exposure and acclimation to marine waters before departing to the ocean in the late fall or winter. 3. Breaching of the lagoon can be detrimental to the tidewater gobies since the habitat can be greatly reduced in size in a short period of time (hours to a few days). This can expose fish to desiccation and predation as well as depleting food organisms in the substrate. The severity of breaching depends on beach dynamics and tide levels at the time of breaching. During high tide the breaching will have much lower effect than during extreme low tides. If water seeps through the barrier berm fast enough it may prevent over				

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	topping of the barrier sand berm and prevent breaching from taking place. The adverse effects of lagoon breaching on tidewater gobies are related to the extent and duration of the resulting lowered water levels. The large local contribution of water from the VWRF undoubtedly allows a rapid recovery of the lagoon, certainly much faster than would normally be the case in the dry season. Lagoons that breach in the dry season without freshwater inflow can retain saline conditions and adversely affect tidewater gobies. Since the discharge water is beneficial to the lagoon in general, possibly some management practices that reduce or eliminate breaching can be developed. 4. Water quality is comprised of several factors of real or potential effects on tidewater gobies such as salinity, nutrients, toxic substances of various kinds, and the actual temperature of the water. Except for salinity tolerance, the actual effects of most kinds of water quality parameters are poorly understood for tidewater gobies. A. Relatively low salinities appear to be optimal for the life history of the tidewater goby despite their tolerance of a wide range of salinity. Large inputs of freshwater maintain such low salinities even if summer breaching introduces large amounts of marine water. The study by Kamman Engineering shows that brackish (low salinity) water conditions will be maintained by several combinations of breaching and outflows from VWRF, even with no outflows. However, their study does not take into account the loss of total habitat under low or no flow scenarios. The VWRF flows would maintain the greatest amount of low salinity habitat on a year round basis in the lower Santa Clara River. The VWRF flows would also minimize the influence of salt water in the dry season when lenses of salt water on lagoon bottoms can abnormally increase water temperatures and contributing to anoxia. In addition excessive salinities adversely affect other native sensitive species				

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	like southwestern pond turtles and redlegged frogs. B. Nutrients contained in effluent water can be detrimental as a general cause of eutrophication; high nutrient levels stimulate overproduction of planktonic and macroalgae. The overabundance of algae can cause anoxia which can lead to fish kills. Tidewater gobies actually have been observed to come to the surface and utilize aerial oxygen and may not be adversely affected by periodic brief anoxic events (a few hours) in the water column. More serious are anoxic sediments that the gobies cannot use for breeding burrows constructed by the males. Excess planktonic algae can block the sunlight from reaching the bottom of the lagoon. Thus macrophytes do not develop, reducing the amount of protective cover for tidewater gobies and other organisms. The water from the VWRF has fewer nutrients than upstream water inputs, likely reducing potential effects of nutrient enhanced freshwater. The reduction of nutrient input is probably one of the most important issues that needs to be addressed in restoration of coastal lagoon habitats. C. The VWRF flows are relatively constant temperature and well within the tolerance limits of tidewater gobies. However, since they remain warmer than ambient in the winter its possible they could support exotic species that otherwise would die out in winter. While some exotic fish exist in the lagoon area, no evidence exists that the discharge channel serves as a refuge for them since they also occur in the main lower Santa Clara River. Wastewater discharges have provided refuge for warm-water exotics in other situations in the southwestern United States, including coastal estuaries in the southern Los Angeles Basin. The VWRF outfall was even a recipient of young steelhead transferred from the Freeman Diversion during dry years. The temperature and oxygen requirements for steelhead				

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	are more stringent than for tidewater gobies so no adverse effects on tidewater gobies should be anticipated. D. The effects of other toxic substances on tidewater gobies have not been studied. Since the VWRF water is lower in most if not all of these than other local inputs and the tidewater goby population is robust, little or no current effect is apparent. It could be that the dominance of the VWRF flows is buffering the effects of other lower quality flows. If so, reduction of VWRF flows might allow these lower quality flows to dominate and degrade the water quality of the lagoon. E. As noted above, tidewater gobies appear to be relatively tolerant of varying oxygen concentrations, even periodic low values that can be detrimental to other fishes like topsmelt or steelhead. Oxygen content of the water depends on the temperature, amount of nutrients, and degree of mixing of the lagoon water. Typically mixing is achieved by wind and since most of the lagoon is relatively shallow (a meter and a half or less deep) the water stays oxygenated. The strong flow of the input channel of the VWRF should provide strong mixing and oxygenation in the channel and nearby arm of the lagoon. This is important on this northwest corner where tall willows and Arundo tend to block the effects of the wind. Wind more strongly effects the southern and inland margins of the lagoon. At times during the warm months mats of floating green algae can develop and these act to prevent wind mixing of the lagoon as well as preventing light penetration into the water column. Both effects can contribute to low oxygen levels in the water column. The strong flow from the outfall channel counters these impacts. As documented above many of the desirable features of habitat for tidewater gobies are provided by the discharge of the				

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	VWFT. In many ways it is substituting for substantial freshwater inflow that existed before about 250 years ago at the initiation of European influences on land use. Although monitoring efforts have documented a robust population in the Santa Clara River estuary, the benefits to the tidewater goby population have not been studied specifically to allow conclusive judgments connecting changes in the fish populations to environmental factors in the lagoon, including the input of the VWRF. The methods for accomplishing such a monitoring program for fishes are well known (for example see chapters in Schmitt and Osenberg 1996 and Busch and Trexler 2003). As pointed out in the Comment letter from the U. S. Fish and Wildlife Service, such efforts should be a multi-agency responsibility via some kind of overall drainage or lagoon management or land-use plan. Clearly a variety of environmental and land use issues impinge on the Santa Clara River drainage and will be best addressed for the long term by an overall plan that incorporates as many issues and stakeholders as possible. Regardless of the long term outcome, clearly the current conditions are largely favorable for, and support, a robust population of tidewater gobies. Any change in these conditions needs to take into account maintaining this population during any transition to similar or changing hydrological conditions.				
Letter from City of San Buenaventura Dated on May 30, 2007					
A.	**<u>Chapter 1 part A of the Enclosed Bays and Estuaries Policy:</u>** *Pursuant to Chapter 1 part A of the Enclosed Bays and Estuaries Policy, the discharge of treated wastewater to the estuary is prohibited after December 1, 2018, unless there has been a determination from responsible resource agencies that sustenance flow is required to support endangered species habitat.*			The Regional Board has not specified the manner of compliance with the general prohibition to discharge conditions in the tentative permit. It was suggested that recycling the wastewater may be one alternative. It is up to the Discharger to comply with the Regional Board's requirements, and 10 years have been granted to remove the discharge from the Estuary.	None necessary

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	The end goal of zero discharge to the Estuary, 365 days per year, can never be achieved through reclaimed water irrigation. Seasonal demands for reclaimed water typically peak in summer-fall periods and are at minimum levels during winter and early spring. If a user base could be developed which would use 100% of effluent volumes available in the winter-spring period, increased need during dryer seasons would result in harm to the customers who have committed to reclaimed water use. Conversely, if a user base could be developed which had dry season demands equal to the available reclaimed supply, reduced wet season demands would result in average use of approximately half the total annual reclaimed water output. The implications are that maximum safe reclaimed market development would have to occur by year 5 in order to achieve the 50% removal milestone set for that year. The alternative of developing a customer base that would use all of the reclaimed water volume available (10 MGD, 3.6 billion gallons annually) would require significant storage. Discounting annual variability in demand, the storage volume required would be 2 billion gallons. No such storage capacity exists or can be developed. Equally important, no market exists for such a volume of reclaimed use and no such market can be developed nor can facilities necessary to deliver these volumes be developed in the time frame outlined in the tentative permit. Therefore to comply with the estuary discharge prohibition the City would have to permit, design, and construct an ocean outfall at an estimated cost of more than $80 million. Such a project might be executed within the 10-year time frame of the permit, but will not result in the gradual annual decreases envisioned.				

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B.	**pg. 6; II. FINDINGS; A. Background; paragraphs 6:** *This NPDES renewal proposes to lift the requirement of maintenance flows of 5.6 MGD to the Estuary so that reclamation can be increased and discharge to the Estuary incrementally decreased by 1 MGD each year.* The City cannot achieve annual incremental 1 MGD flow reductions as prescribed. As noted in A., the completed reclaimed water market survey indicates a maximum potential for 2 MGD total irrigation reuse demand. No industrial or other reuse options with a 10 MGD demand are locally available making the reduction through increased reclamation impracticable. Moreover, the best available data predicts that such reductions will at some point have a negative impact on the estuary function, particularly for species of concern such as tidewater goby and southern steelhead.		X	See Response to Comment No. A to City of San Buenaventura.	None necessary
C.	**pg. 7; II. FINDINGS; A. Background; paragraphs 7:** *The conclusions of the Study were largely inconclusive. However there was concern expressed that a swift reduction in the volume of fresh wastewater to the Estuary could result in loss of habitat and adverse impacts on the Tidewater Goby.* Board staff has dismissed the findings of the enhancement study without documenting conclusions that lead to this determination. These are declarative statements and not findings of fact. In fact, the enhancement study was a scientific investigation into both impacts and benefits of the discharge that was conducted by experts at great cost, and its findings have not been refuted in a meaningful way by any of the participants in the workshops. Briefly, the enhancement study noted that the discharge replaces dry weather surface flows in the Santa Clara River that have been lost to upstream diversions, and improves habitat and water quality in the Estuary for tidewater goby and southern steelhead.	X		See Response to Comment No. 1 to NOAA.	None necessary

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	Since this study was conducted with Board approval and Board staff's concurrent input and evaluation and in fact did influence the direction of the ongoing study during its execution. It is reasonable to conclude that Board staff could have shared any further concerns about the direction of the study during its execution and could have shared any misgivings about the conclusions of the report before promulgating a new permit that dismisses the study's findings. This did not occur. Board staff's determination that the report is inconclusive would appear to be based on the fact that there was no written support from Resource Agencies but one non-governmental organization (NGO) was opposed. While the particular opposing organization was offered opportunities to participate in the process of developing the scope of the study and to comment on the results of the study, this did not occur. Further, no factual evidence supporting opposition has been provided by the NGOs to the City's knowledge. Conversely, it should be clearly noted that none of the Resource Agencies actively supported removing the discharge, which would have been very easy for them to do given the circumstances involved. Nonetheless, the Resource Agencies deserve a detailed explanation of where the study was considered deficient, and a further opportunity for consultation.				
D.	**pg. 7; II. FINDINGS; B. Facility Description:** *The Facility Description should read:* The treatment system consists of screenings and grit removal, primary sedimentation, flow equalization, activated sludge nitrification and partial denitrification, tertiary filters, chlorination and dechlorination, primary sludge thickener, dissolved air flotation (DAF) secondary sludge thickening, anaerobic digestion, and dewatering (using plate and frame filter presses). All of the Class B anarobically digested sludge is dewatered and composted to class A at Lost Hills, Kern County and then	X		Regional Board staff agree.	Suggested change has been made.

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	land applied to a cotton farm in Kings County. Screenings and grit are disposed of at the Toland Road landfill. Compliance with this order's incremental discharge reduction and eventual elimination, as required by the Enclosed Bays and Estuary Policy will necessitate the construction of an alternative discharge facility, most likely an ocean outfall. The cost of an ocean outfall would force the City to contemplate alternative treatment unit processes as a new level of service.		X	See Response to Comment No. A to City of San Buenaventura.	None necessary
	The City further considers the requirement to move the effluent from the Estuary as an unfunded mandate. The requirement to relocate the effluent discharge results in a new service, most likely an ocean outfall, and therefore is subjected to the unfunded mandates provisions of The Constitution of California Article XIII B, Section 6, which requires the State to provide a subvention of funds to reimburse the local government for the costs of increased level of service. The City proposes to allow the current litigation and anticipated appeals process, which involves this Regional Board, to proceed with the application of resulting case law as appropriate in the future.		X	See Response to Comment No. A to City of San Buenaventura.	None necessary
	Additionally, the design scope for the Upgrades Phase II project for VWRF was based in part on projected continuation of discharge to the Estuary. The City will re-evaluate the current scope elements considering the potential relocation of the discharge from the Estuary to the ocean through an outfall. The process for re-evaluation of the elements of Upgrades Phase II would be based on current state of the art for ocean discharge, which includes secondary treatment without nitrification or chlorination.	X		Regional Board staff appreciate the additional information.	Non necessary
E.	<u>pg. 14; II. FINDINGS; P. Endangered Species Act; paragraphs 1:</u> *This order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited or becomes prohibited in the future, under either the*				

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	California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Acct (16 U.S.C.A. sections 1531 to 1544)…The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act. These statements would seem to acknowledge that if, as predicted by studies, reducing the discharge induces stress through loss of habitat and poorer water quality, this would be considered take and should result in stopping further flow reduction. No such language is included in the permit. At the very least, the proposed discharge permit should include language indicating that the phased reduction of the discharge be contingent upon receipt of a take permit from the appropriate resource agencies. This language would trigger constructive review by those agencies. Potentially, the City is being mandated by the Board to violate provisions of law administered by other agencies. Elsewhere in the tentative permit the City is required to monitor tidewater goby populations to determine if there is a "negative" impact to the tidewater goby as the discharge is being ratcheted down (note that southern steelhead will respond adversely to reduced water quality much more quickly than will the tidewater goby). Any evidence of negative impact would be defined as "take", which puts the City at risk without a permit.		X	The permit contains the following language on Section III. DISCHARGE PROHIBITIONS A: "Pursuant to Chapter I, Part A of the Enclosed Bays and Estuaries Policy, the discharge of treated wastewater to the Estuary is prohibited after December 31, 2018, unless there has been a determination from responsible resource agencies that sustenance flow is required to support endangered species habitat."	None necessary
	In 2006, the City proposed a monitoring program with periodic reporting intended to evaluate impacts of reduction over a period sufficient to assess these impacts during a minimal range of local climatic conditions. This proposed program suggested that the period between incremental changes would be 3 to 5 years to achieve a valid assessment, since annual variations in goby populations can be large and could obscure the presence of actual impacts. Conversely, since the cumulative change at the end of a 5-year period under the language of the draft permit would be a 50% reduction in flow augmentation, adequate evaluation of incremental impacts		X	The City will be required to continuously monitor the impacts from the incremental decrease over a 10-year period.	None necessary

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	across even small climatic variation would not be possible. Some projection of impacts to estuary function was made through modeling and professional judgment as part of the estuary water balance study completed in April 2007 and represent the best information currently available regarding what the Estuary might look like at different stages of effluent discharge. While no further modeling work is contemplated, this study indicated that shallow groundwater and local surface run-off would dominate the Estuary as effluent flows were reduced. Moreover, circulation would also be affected as the frequency of breaching events would be reduced and ultimately eliminated. Even given that monitoring will be carried out, it is not possible for the City to make any assurances that a determination of no impact made over the short term will adequately predict that no impact will occur under a different set of conditions over a longer time frame and, consequently the risk of potentially significant impacts will be increased. Thus the Board should not require the City to make any significant alterations to the discharge volume without reasonable opportunity to evaluate long-term impacts of such change.				
F.	**pg. 16, IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS; A. Effluent Limitations; 1. Final Effluent Limitations-Effluent Transfer Station; paragraph a:** *The Discharger shall maintain compliance with the following effluent limitations with compliance measured at the Effluent Transfer Station as described in the attached MRP…The Discharger shall monitor the discharge of tertiary-treated effluent at the Effluent Transfer Station as follows.* Table 3 on page E-7 delineates the measurement parameters including Total Waste Flow and Total Chlorine Residual.				

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	Moving the point of compliance to upstream of the wildlife ponds coupled with the construction of an ocean outfall could eliminate these ponds entirely. It is a commonly held community value that these ponds are a beneficial resource that deserves consideration. Once effluent is diverted to an ocean outfall the water level in the ponds will recede through percolation, which will eliminate the ponds. The City recommends retaining the compliance and sampling points that have been in place since 1978.		X	If an ocean outfall is taken into the place as the discharge point will be used in the future, the current wildlife ponds may be dry out. However, for the compliance purpose, the Discharge must get **all** representative effluent samples at the Effluent Transfer Station. The Discharger currently collects all effluent samples at the Effluent Transfer Station but acute and chronic toxicity, which are collected at the current Outfall located at the Estuary. In addition, the Discharger uses the wildlife ponds as a part of dechlorination process. This is not a good practice. The wildlife ponds should be treated as a part of the receiving water system. The compliance point must be at the Effluent Transfer Station. Therefore, a new outfall is relocated upstream of the wildlife ponds at 34°, 14', 22.46" N and 119°, 15', 58.84" N.	None necessary
	The City will deliver reclaimed water from the Effluent Transfer Station as soon as practicable. If enacted, in order to comply with the flow volume measurement the City proposes to use an existing total flow meter located after tertiary filters and before chlorination as satisfactorily adjacent to the Effluent Transfer Station. Subtracting effluent flow diverted for reclamation will calculate the total flow released to the wild life pond system.	X		Regional Board staff partially agree. The City can temporarily use an existing total flow meter, located after tertiary filters and before chlorination, to monitor the total waste flow. By June 30, 2008, the total waste flow device must be installed and function properly at the Effluent Transfer Station.	Changes have been made.
	At this time, there are no provisions available to monitor Total Chlorine Residual at the ETS. A monitoring system will have to be designed, equipment purchased, and constructed. To complete this project and meet the requirements by September 1st, 2007 is not possible. There would also be a considerable cost that has not been budgeted for. Because all of these facilities were constructed and built to achieve compliance in accordance to the existing Discharge Permit, they exist at the Effluent Lagoon discharge to the Estuary.		X	The tentative permit has required the Discharger to monitor residual chlorine at the Effluent Transfer Station. The Discharge may propose an interim measure for residual chlorine.	None necessary
	The Board Staff reasoning for changing the monitoring point is mainly to produce a recycle water flow to our users that is consistent with the water quality measured at our existing MRP.	X		Regional Board staff agree. In addition, the safety and sanitation of recycled water has to be considered.	None necessary
	Interim measures that would achieve the same goal, that can be used until a permanent solution can be adopted is possible.	X		The Discharge may propose an interim measure for residual chlorine.	None necessary

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	The receiving waters of concern for this tentative NPDES permit, is the Estuary. We have been completely successful in meeting the 0.1 ppm, with the monitoring and dechlorination equipment now in use. The effluent chlorine residual is dissipated as it passes through the wildlife ponds, requiring less Sulfur Dioxide to be released into the Estuary.		X	The wildlife ponds are not part of the wastewater treatment system. Therefore, they cannot be used to reduce chlorine residual.	None necessary
	Recycle water can be delivered to our users without going through the wildlife ponds. The recycled water used to supply our reclaimed water users can be drawn from the Effluent Transfer Station, completely bypassing the wildlife ponds. This would eliminate the possibility of bacterial recontamination as it passes through the wildlife ponds.	X		Regional Board staff agree.	None necessary
	The newly proposed Discharge Permit should allow us to continue to monitor for Total Chlorine Residual and dechlorinate at the existing Dechlorination Facility. Flow monitoring to the Estuary can remain at the existing location or we can implement the proposed alternative method. All other sampling parameters, as specified on Table 6. Effluent Limitations, would be sampled at the Effluent Transfer Station.		X	The total chlorine residual must be collected at the Effluent Transfer Station in order to avoid the possibility of bacterial recontamination as it passes through the wildlife ponds. The City can temporarily use an existing total flow meter, located after tertiary filters and before chlorination, to monitor the total waste flow. By June 30, 2008, the total waste flow device must be installed and function properly at the Effluent Transfer Station.	Some change has been made.
G.	**pg. 29; VI. PROVISIONS; C. Special Provisions; 2. Special Studies, Technical Reports and Additional Monitoring Requirements; a. Special Studies; paragraph ii:** *The monitoring aspects of this work Plan should cover the following:* (a). The level of impact on the tidewater goby's population as a result of incremental decrease in the discharge from the Facility of 1 MGD per year; *(b). The population and number trends from the "Fish Survey";* *(c). The influences of groundwater on the Estuary; and,* *(d) Evaluations of different discharge volume scenarios, which may affect breaching frequency, ground water influence, and water quality.*				

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	On April 30, 2007 the City submitted a water balance study in the Estuary, which fulfills (c) and (d) of the section. The water balance demonstrated that flow reduction would eliminate breaching during summer months and the resulting water quality would resemble McGrath Lake.		X	The natural breaching of the Estuary is not a predictable occurrence. Recent winters have caused the Estuary to grow in size changing the configuration of the beach with the creation of internal lagoons. These lagoons increase the capacity of the Estuary, allowing for larger amounts of water to be contained. The ratio of water in the Estuary, the height and width of the sandbar, ground water pressure and tidal action, at a minimum, all have a role. Since these factors are subject to dynamic change, basing a decision as critical as this simply on a breaching schedule and the change it brings to water quality in the Estuary, seems unwise. Therefore, the Discharge needs to address (c) and (d).	None necessary
	To serve as a baseline the City completed a fish survey on May 21, 2007 and will complete another in October 2007 with the results and analysis compiled into a report to be included with the 2007 Annual Report. Until flow reduction is achieved no further fish surveys are contemplated.		X	The condition of the Estuary is dynamic. The each result of Fish Survey won't be guaranteed to be the same. Therefore, the Discharge needs to annually conduct the fish Survey twice a year in order to construct the fish data base in the Estuary.	None necessary
H.	**ATTACHMENT E – MONITORING AND REPORTING PROGRAM:**				
	Page E-5; Table 1- Monitoring Station Locations - Receiving water station R-005 was labeled station L-5 in the previous permit. Clarification needs to be provided with regards to the labeling of this station to distinguish labeling proposed from labeling in permits prior to 2000 that were labeled R-5.	X		Regional Board staff agree.	Change has been made.
	Page E-7; Table 3 – Effluent Monitoring – Due to changes made to effluent disinfection in 2004, there has been a significant decrease in Dibromochloromethane (43.3 UG/L) and Dichlorobromomethane (91.1 UG/L). Dibromochloromethane ranged from .84 – 1.56 UG/L in 2005 and 1.2 – 3.3 UG/L for 2006, well below the effluent limitation of 34 UG/L. Similar reduction were noted for Dichlorobromomethane ranging from 2.5 –5.5 UG/L in 2005 and 5.0 – 8.6 UG/L in 2006. The effluent limitation is 46 UG/L.	X		Regional Board staff agree. The effluent concentrations for dibromochloromethane, and dichlorobromomethane have been reduced due to the modification made to effluent disinfection in 2004. The effluent data of the above two chemicals between May 2004 and November 2006 did not show any reasonable potential to exceed the CTR-based criteria. Therefore, the effluent limits for these three chemicals have been deleted from the April 27, 2007 tentative permit, as well as the interim limits.	Changes have been made.

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	It was discovered in 2005, that Bis(2-Ethyhexyl)Phthalate was being performed on the 24 hour composite sample and not the grab. In November 2005, analysis was performed on both samples with the following results 11.3 UG/L for the composite and ND (non-detect) for the grab. The value of 36.7 UG/L listed was in February 2004. In 2006, all samples were below the detection limit.	X		Regional Board staff agree. The final effluent and interim limits for bis(2-Ethyhexyl)Phthalate have been deleted from the revised tentative Permit.	Changes have been made.
	All cyanide analyses for 2005 and 2006 were below detection limit of 5.0 UG/L.	X		The Discharger modified the treatment process. Between May 2004 and August 2007, the analytical results of cyanide in the effluent were all non-detected. Regional Board staff agree to delete the effluent limits for cyanide.	Changes have been made.
	Based on the reduction of the above constituents we do not understand the Board required increase from quarterly to monthly monitoring. Also, the complete list for 624 and 625 would have to be analyzed to monitor for Dichlorobromomethane, Dibromochloromethane and Bis(2-EthylHexyl)Phthalate.	X		The influent and effluent monitoring frequencies for dichlorobromomethane, dibromochloromethane, and bis(2-ethylhexyl)phthalate have been modified as semiannually and quarterly, respective. However, these chemicals in the effluent monitoring program need to be monitored monthly until the end of 2008. If the results are non-detected or less than the CTR-based criteria, then the monitoring frequency can be reduced from monthly to semiannually. If any result exceeds the CTR-based criteria after the effective date of January 25, 2008, the monitoring frequency shall remain as monthly.	Changes have been made.
	Department of Health Services has not approved any methods for Pharmaceutical or Emerging Chemicals (EC). The monitoring of EC is set for August 2007.	X		Regional Board staff agree. The footnotes for these chemicals have been revised as "…<u>These chemicals need to be monitored, only when the analytical methods for these chemicals are applicable and approved by the California Department of Public Health (CDPH).</u> These chemicals need to be monitored in August."	Changes have been made.
	Page E-17; Table 4a – Receiving Water Monitoring – It will cost over $24,000, for the analyses alone, for the changes made in the receiving water program. Past data does not support the findings for increasing the monitoring of Dichlorobromomethane, Dibromochloromethane and Bis(2-Ethylhexyl)Phthalate or changing 2,3,7,8-TCDD (Dioxins) to the analyses of the 16 dioxins congeners.	X	X	Regional Board staff agree to decrease receiving water monitoring frequencies for dichlorobromomethane, dibromochloromethane, and bis(2-ethylhexyl)phthalate as semiannually due to no reasonable potential to exceed the CTR-based criteria. The receiving water monitoring for all 16 dioxins congeners has been required to monitor in all recently adopted NPDES permits.	Some changes have been made.

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	Page F-35; Table 7- Summary of Reasonable Potential Analysis – It shows a maximum Dibromochloromethane of 40.7 UG/L and 2.9 UG/L for Dichlorobromomethane. From 2002-2006, our records do not show a value over 2.9 UG/L for Dibromochloromethane. During the same period of time Bis(2-EhtylHexyl)Phthalate was found in only one sample with a concentration of 2.92 UG/L below the effluent limitation of 5.9 UG/L.	X		Regional Board staff agree to modify. Maximum effluent concentrations of dibromochloromethane, dichlorobromomethane, cyanide, and bis(2-ethylhexyl)phthalate have been revised as 5.5 µg/L, 8.6 µg/L, ND<5 µg/L, and ND<2.5 µg/L, Respectively.	Changes have been made.
	During the chronic toxicity frequency-testing period from 2002-2006, Selenastrum (algae) was most susceptible to the outfall effluent. The effluent had no effect on Ceriodaphnia or Fathead Minnow. The receiving water had the greatest effect on reproduction and growth for Ceriodaphnia and equal effects on growth for Fathead and Algae. Chronic toxicity failures at receiving water stations from 2002-2006 suggest something other than the discharged effluent is contributing the toxicity in the receiving water. The receiving waters had 14 Ceriodaphnia, 6 Fathead, 7 algae and the outfall effluent had 3 failed algae. Based on the above information the effluent and receiving water monitoring should be quarterly for these constituents.	X		Regional Board staff agree to correct the typographic error of the receiving water monitoring frequency for the chronic toxicity as quarterly. However, the effluent monitoring frequency for the chronic toxicity must remain as monthly, because the effluent chronic toxicity data **do** show the reasonable potential to exceed 1 TUc.	Some change has been made
	Summary:				
	The discharge prohibition actions considered in this permit may put the Estuary environmental values at risk, which triggers the need for a responsible resource agency consultation before taking this action. The Board should enter into consultation with resource agencies to obtain their expert opinion on the effects of discharge reduction on protected species before requiring actions that available evidence suggests may be detrimental.	X		See Response to Comment No.1 to NOAA.	None necessary
	The statements declaring the May 2005 Estuary Enhancement Study as inconclusive and highly inconclusive do not include supporting documentation. In the face of the available evidence the Board should not make the decision to remove the discharge from the estuary without such supporting information.	X		See Response to Comment No.1 to NOAA.	None necessary

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	Increasing reclamation cannot achieve this tentative permit's goals of incremental ratcheting down the effluent discharge volume to the Estuary and eventual discharge elimination over a period of time. Incremental reduction essentially necessitates construction of alternative discharge facilities, most likely an ocean discharge through an outfall. An outfall cannot be permitted, designed, and constructed within the time period of this permit. The Board should instead require reasonable steps to achieve a discharge goal supported by scientific research, expert opinion, and realistic timelines. The City is submitting as an attachment to these comments an engineer's estimate work plan to permit, design and construct an ocean outfall.	X		If the Board decides that the discharge from the Facility has to be reduced or eliminated, then the ocean discharge may be an ultimate alternative. Time needed to construct a new outfall will be considered by the Regional Board in granting a compliance schedule.	None necessary
	Two of the special studies required by this permit, a Reclamation Market Survey, and Estuary Water Balance are complete. The permit should reference the Technical Memorandums that discuss the results of this research and sections implying ongoing additional efforts should be removed or amended to discuss specific goals and time frames. These documents are available to the Regional Water Board as of April 30, 2007 as required by TSO R4-2006-0093. These studies are included as part of the administrative record by attachment to these comments.	X		Regional Board staff agree. The references to "Technical Memorandums" have been added.	Changes have been made.
	The fish survey is intended to provide the Board with baseline information on the quantity of the Tidewater Goby utilizing the current outfall and adjacent lagoon area as preferred habitat. The first survey was conducted on May 29, 2007 with the second scheduled for October 2007. The results will be included as part of the City's 2007 Annual Report. Sections implying additional fish surveys beyond 2007 should be eliminated.		X	The condition of the Estuary is dynamic, therefore, each result of a Fish Survey will probably vary. The Discharger needs to annually conduct the fish Survey twice a year in order to construct the fish data base for the Estuary.	None necessary
	Finally moving the point of compliance to upstream of the wildlife ponds coupled with the construction of an ocean outfall could eliminate these ponds entirely. It is a commonly held community value that these ponds are a beneficial resource		X	See Response to Comment No. F to City of San Buenaventura.	None necessary

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	that deserves consideration. Once effluent quality is reduced to secondary standards and diverted to an ocean outfall the water level in the ponds will likely recede to that of the Estuary, which will eliminate the ponds. The City recommends retaining the compliance and sampling points that have been in place since 1978. The City agrees to deliver reclaimed water from the Effluent Transfer Station as soon as practicable.				
	Conclusions and Recommendations: The provisions of this permit as written will require the City to construct an ocean outfall at an estimated cost exceeding $80 million; an action that available evidence strongly suggests will detrimentally impact protected Estuary environmental values. To comply the City must discontinue the current improvement program and investigate all available alternatives.	X		If the Board decides that the discharge from the Facility has to be reduced or eliminated, then the ocean discharge may be an ultimate alternative.	None necessary
	The Estuary is a dynamic highly modified system that currently demonstrates the ability to sustain desirable environmental values. Before the Board implements further significant modification to this system, exposing these values to unknown risk in the process, it should accumulate all available information. The fact that permit renewal process precedes the ability to compile the information to improve understanding should not force permit provisions that the best available evidence suggests are detrimental.	X		Regional Board staff agree. Therefore, the regional monitoring program, and special studies as the following have been proposed in the Monitoring and Reporting Program. These will address: • The level of impact on the Tidewater Goby's population as a result of an incremental decrease in the discharge from the Facility of 1 mgd per year; • The population and number trends from the "Fish Survey; • The influences of groundwater on the Estuary; and, • Evaluations of different discharge volume scenarios, which may affect breaching frequency, groundwater influence, and water quality.	None necessary
	The City believes the Board should instead renew this permit with provisions that provide Board staff direction to complete the stakeholder involvement process by seeking resource agency consultation, which includes expert scrutiny of the available evidence before taking action. Acting in this conservative manner will protect environmental values and obtain an outcome based on the best science available.		X	Regional Board staff disagree. There were numerous meetings including the recent October 19, 2007 meeting that discussed the possible impacts of maintaining and eliminating discharge on the Estuary over the past 4 years. There were no unanimous agreement on every single issue between resource agencies, environmental groups, interested parties, and stakeholders. Therefore, Regional Board staff have taken a middle-ground approach to permitting this Facility. See Response to Comment	

Part 1 – Maintaining Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
				No. 1 to NOAA.	
Letter from United Water Conservation District Dated on May 29, 2007					
1.	**<u>Introduction:</u>** The Santa Clara River Estuary is extremely important to both tidewater goby and steelhead either during all or part of their life history stages. The Tentative Waste Discharge Requirement, Order No. R4-2007-XXXX will require the city to reduce the discharge to the estuary by 1 mgd per year and eventually discontinue the discharge altogether. The Regional Board stated at the meeting on May 8, 2007 that the objective of the annual reduction is to allow the city to evaluate impacts to the two special status fish species during the incremental decrease in discharge. The Regional Board is quoting the State Board Resolution No. 95-84 which states that discharges to estuaries be phased out at the earliest practicable date unless the discharge would enhance the quality of the receiving waters above that which would occur in the absence of the discharge. Surface water diversions and groundwater pumping have reduced the amount of surface water available to the estuary. At present, the majority of the water entering the estuary during the dry season and during drought years is from the Ventura Water Reclamation Facility discharge. The discharge point empties into a backwater area that is located on the northern edge of the estuary within a heavily vegetated area that is shielded from flood events such as the events that occurred in the 2004-2005 rain season. A reduction and eventual elimination of this discharge to the estuary would eliminate this backwater area that is important to the continued existence of tidewater gobies and is most likely important to steelhead rearing in the Estuary. Coastal and inland southern California has a distinctive, endemic native freshwater fish fauna. Today, all of the native freshwater and some of the euryhaline species are extirpated or severely reduced in numbers within their native range (Swift et	X		See Response to Comment No. 1 to NOAA.	None necessary

Part 1 – Maintaining Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	al. 1993). Two of these species include the tidewater goby (*Eucylogobius newberryi*) and the southern California steelhead trout (*Oncorhynchus mykiss*).				
2.	**Tidewater Goby:** The tidewater goby (*Eucylogobius newberryi*) was federally-listed in 1994. The Santa Clara River Estuary is extremely important to all life history stages of tidewater goby. Open areas are critical for breeding, while vegetation is critical for overwintering survival (providing a refuge from high flows) and probably feeding as well (Moyle 2002). Tidewater gobies are susceptible to extirpation especially in estuaries that have been heavily encroached upon such as the Santa Clara River Estuary. During unusually heavy flooding, some tidewater goby populations could become extinct locally because strong flows could easily push fish out to sea where they would most likely perish (Lafferty et al. 1999a). Backwater habitats within estuaries are important refuge sites to tidewater gobies during these flood events.	X		See Response to Comment No. 1 to NOAA.	None necessary
3.	**Potential Tidewater Goby Impacts:** A decrease in surface water and the loss of backwater habitats in the north half of the estuary (the only backwater habitats in the estuary) from the reduction and eventual elimination of treated wastewater discharge to the estuary will increase the likelihood of extirpation of the Santa Clara River Estuary tidewater goby population. Presently 23 (17 percent) of the 134 documented localities are considered extirpated and it is estimated that 55 to 70 (41 to 52 percent) of the localities are naturally so small or have been degraded over time that long-term persistence is uncertain (USFWS 2005). With many populations considered susceptible to extirpation, the Santa Clara River Estuary population is extremely important in southern California since it is currently large comparable to other southern California estuaries and has the potential to re-establish other adjacent populations following catastrophic flood	X		See Response to Comment No. 1 to NOAA.	None necessary

Part 1 – Maintaining Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	events. The loss of treated wastewater discharge during drought years could cause goby die-offs from stranding and poor water quality and cause an increase in bird predation within shallow water. Tidewater goby die-offs did occur in some estuaries during the 1987-1992 drought (Lafferty et al. 1999b). The proposed annual ratcheting down of 1 mgd could cause die-offs if a drought occurs during the monitoring timeframe. It is during times of environmental stochastisity such as unpredicted droughts that gobies would need to leave an estuary to disperse (via a short ocean migration) to more favorable estuaries (if possible) but they would not have an opportunity because during these conditions, the sandbar would have closed the estuary to the ocean. In Lafferty et al. 1999b, they estimated an extirpation rate of the Santa Clara River tidewater goby population at 0.47 and a recolonization rate at 0.60 which means there is a fairly high extirpation rate especially compared to other large estuary extirpation rates in southern California. The recolonization rate of 0.60 is higher than the extirpation rate which means that recolonization is possible and would probably be from the Ventura River population. This extirpation rate would increase with a reduction in surface flow to the estuary and the recolonization rate would decrease if the sandbar is closed more frequently throughout the year.				
4.	**Steelhead:** The southern California steelhead trout (*Oncorhynchus mykiss*) was federally-listed as endangered in 1997. The Santa Clara River Estuary is extremely important to the juvenile, smolt, and kelt life history stages and serves as a migration corridor for adult steelhead migrating from the ocean. Steelhead smolt downstream migration can occur during a wide variety of hydraulic conditions from wet years to dry years (UWCD data). Downstream migrant smolts most likely either spend little time	X		See Response to Comment No. 1 to NOAA.	None necessary

Part 1 – Maintaining Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	in the estuary acclimating to a saline environment before emigrating to the ocean or they oversummer when the estuary is closed to the ocean for an extended period of time during dry conditions. Rearing steelhead require good water quality and instream cover to survive in the estuary. Boughton et al. 2007 describe a life-history group of steelhead as *lagoon anadromous* that spend either the first or second summer as juveniles in seasonal lagoons. This is based on studies conducted in seasonal lagoons in Santa Cruz and San Francisco where high densities of juvenile steelhead have been observed rearing in these lagoons. Also high juvenile steelhead growth rates have been observed in these seasonal lagoons and it is well known that this growth is important to the survival of steelhead immigrating to the ocean.				
5.	**Potential Steelhead Impacts:** The reduction and eventual elimination of treated wastewater discharge to the estuary would reduce the wetted perimeter of the estuary eliminating backwater and adjacent littoral habitats that provide cover for refuge to steelhead. Studies conducted by Nautilus Environmental and Kamman Hydrology and Engineering indicate that water from the shallow groundwater table will infiltrate and partially fill the estuary in place of the treated wastewater effluent. This shallow groundwater is most likely polluted with pesticides and fecal coliform from adjacent agricultural practices. No studies of this water source and the potential impacts to special status species have been conducted to my knowledge. So, not only will there be a loss of important backwater habitats, this new source of water could have an impact. Some of the comments at the May 8, 2007 meeting appeared to be based on the notion that this water source would bring the estuary back to a historic natural condition. There have been impacts to the shallow groundwater table that need to be evaluated before treated wastewater is eliminated from the estuary. Additionally, the reduction and eventual loss of a constant water source that has been discharged to the estuary for years could disrupt the	X		See Response to Comment No. 1 to NOAA.	None necessary

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	important lagoon anadromous life history stage for juvenile steelhead.				
6.	**Endangered Species Consultation:** Section 7 of the Federal Endangered Species Act of 1973 requires that any federal agency confer with the jurisdictional federal agency that is responsible for a federally-listed species if an action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat proposed for a listed species. There appeared to be some confusion at the May 8, 2007 meeting in Ventura regarding this formal consultation. The Tentative Waste Discharge Requirement (Order No. R4-2007-XXXX) may affect the federally listed tidewater goby and steelhead including designated critical habitat so formal consultation with the USFWS and NMFS under Section 7 of the federal Endangered Species Act should be required through the U.S. Environmental Protection Agency.		X	The consultation will be called by USEPA after the Regional Board makes a decision that the Resource Agencies do not agree with.	
7.	**Problems with Proposed Monitoring:** Tidewater goby populations can experience large fluctuations naturally so it would be difficult to know if an impact is from a decrease in discharge or natural variability. The Santa Clara River Estuary is highly dynamic meaning that the physical habitat within the estuary is in continual flux primarily from freshwater and tidal hydraulic processes and long shore drift. Based on this condition it is extremely difficult to define a baseline and success criteria. The tidewater goby population in the Santa Clara River Estuary could become extirpated during the study if there is a loss of backwater habitats during the ratcheting down of treated wastewater effluent.	X X X		We agree that it could be difficult to separate changes due to the discharge from those caused by other factors. By collecting monitoring data and comparing them to other areas, we hope to evaluate this. We agree that it could be difficult to define a baseline and success criteria, but adequate monitoring data should help establish the natural range of conditions within the Estuary. Gradual decreases in flow are intended to avoid sudden lose of habitat and allow the tidewater goby to adapt to the changing conditions.	None necessary

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	There are no methods that can quantify the optimum amount of water tidewater gobies need such as "weighted usable area" quantified during PHABSIM exercises for salmonids in streams. This is because tidewater gobies can exist in large numbers within some of the smallest estuaries in California but they are susceptible to extirpation because they lack backwater habitats and some are satellite populations that turn on and off (presence-absence) following large flood events such as Arroyo Hondo and Cojo Creek Lagoons in the Conception Coast area. Steelhead don't appear to be a focus in the monitoring scheme and the proposed action could reduce the amount of rearing habitat for smolts and eliminate this habitat during dry years when downstream migration can still occur (United Water unpublished information).	X X		Consultation with federal and state resource agencies and review of habitat conditions throughout the state should allow some estimation of optimal habitat conditions for the tidewater goby. Additional monitoring may be required to access potential impact to steelhead. The Regional Board can always require additional studies/information etc., under a 13267 request.	
8.	**Enhancement of the Estuary:** The regional water board stated during the May 8, 2007 meeting that the City of Ventura has not presented a strong case that the treated wastewater discharged to the estuary enhanced the quality of the receiving water in the estuary as required in State Board Resolution No. 95-84. As stated in the introduction, it is unfortunate that a number of special status aquatic species now rely on treated wastewater effluent for their continued existence. The treated effluent from the Ventura Water Reclamation Facility enhances tidewater goby habitat in the form of backwater habitats within the northern extend near the outfall. If the discharge is discontinued these important backwater areas will cease to exist. As stated in the tidewater goby section of this letter, backwater habitats are important rearing areas for gobies. The biggest concern here is that if an extreme flood event were to occur in the Santa Clara River and there are no backwater habitats present in the estuary, the Santa Clara River tidewater goby population could become extirpated. For example, during the 2004-2005 rain season the region experienced heavy flooding. The Santa Clara River Estuary was completely washed out by flood flows well over	X		See Response to Comment No. 1 to NOAA.	None necessary

Part 1 – Maintaining Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	100,000 cubic feet per second. Tidewater gobies that were in the estuary were most likely swept out to the ocean and perished. The backwater habitats resulting from the treated wastewater effluent were shielded from the floods and tidewater gobies that were rearing in these habitats most likely re-establish the population.				
9.	**Conclusions and Recommendations:** Based on the presence of two special status fish species in the Santa Clara River Estuary it is a concern that the Regional Water Quality Control Board is requiring the City of Ventura to reduce and eventually eliminate the treated wastewater discharge to the estuary without conducting detailed studies to understand the potential impacts to these species from this action. As stated above there are benefits to tidewater gobies from the formation of backwater habitats that are formed near the discharge point at the north end of the estuary. These benefits were addressed in a study by Entrix, Inc. (2004) that looked at the "Beneficial Uses" to tidewater gobies in the estuary. These beneficial uses were described as tidewater goby utilization of backwater habitats in the northern half of the estuary near the wastewater outfall. The backwater habitats that the wastewater effluent creates should be considered as an enhancement to the receiving waters of the estuary since they enhance the physical habitat for tidewater gobies and most likely steelhead as well. If the Regional Board decides to continue with the proposed action, it is recommended that these actions take place to understand what impacts might occur from such an action. • Conduct a detailed study of the shallow aquifer (water quality) that is assumed to become the primary surface water influence to the estuary following the elimination of treated wastewater discharge.	X		Regional Board staff agree and will add to requirement for the discharger to propose and conduct "Special Studies"	Change has been made.

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	• Conduct a study on the potential effects the ocean might have on the salinity of the estuary in dry years following the elimination of treated wastewater discharge. The concern would be potential changes to the brackish Santa Clara River Estuary that has a seasonal freshwater character to a brackish system with a seasonal marine character. • A part of any water balance or water quality study should take into account other cumulative effects including but not limited to the increasing reliance on water resources from an increasing population in Ventura County. A study should attempt to predict the growth rate over decades including the increase in water use. • Conduct hydrologic modeling that will address the loss of backwater habitats based on various discharge scenarios. • Look at various alternatives to enhance the estuary so that these backwater habitats remain if the proposed action is implemented.				

Part 2 – Eliminating Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
Letter from California Department of Parks and Recreation Dated on July 9, 2007					
1.	The proposed Order to cease discharge of all tertiary treated water into the estuary by 2018 and current NPDES Permit recommendations on the surface seem positive steps toward returning the Estuary to a more natural function. Work completed by the City's consultant to evaluate the water balance in the system appear to indicate that the Estuary will fill with groundwater moving from across the Oxnard Plain. There is some disagreement between stakeholders about the current frequency of breach events and how that might change if the Estuary were to be fed only by ground water sources and seasonal river flows.	X		Regional Board staff agree that some more studies should be conducted in order to understand the current frequency of breach events and how that might change if the Estuary were to be fed only by ground water sources and seasonal river flows. These studies would be conducted through interested parties under the Watershed-wide Regional Monitoring Program. Once this Regional Monitoring Program has been designed, the existing monitoring program may be revised or monitoring re-directed.	None necessary
2.	At the May 8, 2007 workshop held by Regional Board staff regarding these proposed actions staff from my office raised concerns about the narrow view being taken by these proposed actions. While we understand the Regional Board's regulatory action is limited to evaluating the discharge and any "enhancement value" it might bring to Estuary function, State Parks as owner and steward of the Estuary and adjacent lands must take a broader and more holistic view. This Estuary is a significant resource within Southern California and within the State for a variety of reasons. The watershed is significant. The river is home to the Tidewater Goby and Steelhead. The Estuary is a stopover on the migratory flyway. It is part of a State designated Natural Preserve. It is adjacent to a coastal recreation area and campground. It is part of the historic river delta that includes remaining wetlands and McGrath Lake. Simply put the Estuary is part of a larger system of habitats and water resources that must be recognized and considered in its entirety. A narrow approach delivering a narrowly regulated action based on a single factor has the potential to cause unknown disruption to ESHA within McGrath State Beach. This would not be a responsible action on the Board's part.	X		We agree that a Watershed Approach is the best vehicle for assessing and protecting the entire watershed. However, the action before the Board is simply an NPDES permit reissurance. The Board can direct staff to work with the stakeholders in determining long term management plans for the watershed.	None necessary

Part 2 – Eliminating Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
3.	The natural breaching of the Estuary is not a predictable occurrence although some would like to present it as such. Recent winters have caused the Estuary to grow in size changing the configuration of the beach with the creation of internal lagoons. These lagoons increase the capacity of the Estuary allowing for larger amounts of water to be contained. The ratio of water in the Estuary, the height and width of the sandbar, ground water pressure and tidal action at a minimum all have a role in the equation that might lead to Page 2 predicting a breach. Since these factors are subject to dynamic change basing a decision as critical as this simply on a breaching schedule and the change it brings to water quality in the Estuary seems unwise.	X		Regional Board staff agree that the natural breaching of the Estuary is not a predictable occurrence. In order for the Regional Board to implement the State's Enclosed Bays and Estuaries Policy, the discharge must cease at the earliest practicable time. However, exceptions to this provision may be granted by a Regional Board only when the Regional Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge. Staff believes that the tentative permit implements the Policy while still assessing any negative impact to endangered species during an incrementally decreasing the volume of discharge to the Estuary over a 10-year period.	None necessary
4.	The conditions of the Estuary as they relate to water quantity and water availability and water quantity are intrinsically tied to providing habitat for the Tidewater Goby. To separate out these concerns as not substantive would be short-sighted. A simple calculation as to the amount of water that may be discharged does not do justice to the unique habitat of the Estuary.	X		Regional Board staff agree that "a simple calculation as to the amount of water that may be discharged does not do justice to the unique habitat of the Estuary." See Response to Comment No. 3 to the California Department of Parks and Recreation.	None necessary
5.	Any action taken by the Board to regulate the Facility's discharge must evaluate the consequences on that action on the entire system. It will require the input of stakeholders and scientists to examine at a minimum the lower Santa Clara River watershed, its potential for habitat protection, restoration and habitat sustainability. It must look at the local Basin Plan and the designations placed on the "waters of the State" and how any action may impact that Plan. It should not exclude from its study the potentials for restoration such as the removal of existing structures required for operation of the current discharge and benefits to the Tidewater Goby nursery.	X		See Response to Comment No. 2 to the California Department of Parks and Recreation.	None necessary
6.	We understand the need for issuance of a discharge permit at this time. While that is the case, we strongly encourage Board staff to develop recommendations to accompany the proposed NPDES permit that will require a system-wide study and planning process. Four years from now, when the next permit is	X		See Response to Comment No. 2 to the California Department of Parks and Recreation.	None necessary

Part 2 – Eliminating Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	being contemplated, data collected from a system review should be available to guide the shaping of long-term regulatory actions that will protect and restore the entire estuary system. Monitoring of every aspect of the system must be included within any action taken by the Board.				
Letter from a Professor of University of California at Los Angeles Dated on July 3, 2007					
1.	The FWS argument is the claim that "[u]nder 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." There is much uncertainty about the historical conditions at southern California coastal wetlands, including the Estuary. Detailed studies of the historical ecology of southern California river systems have just recently begun (e.g., the recent study by Stein et al. for the San Gabriel River), and no equivalent study of the Santa Clara River system has been completed. Although it is possible there was normally dry-weather flow in the lower Santa Clara River, it is also possible that the Estuary was typically separated from the ocean in the dry season by a sand barrier; there is accumulating evidence that this was the typical state for most southern California estuaries (David Jacobs, UCLA, personal communication). A much more thorough analysis must be completed before accepting the assertion that "the Estuary breaching regime in summer may not be significantly different than historic conditions."	X		Regional Board staff agree. However, a breaching study requirement has been existed in the Section VI.C.2.a.ii.(d). of the tentative permit.	None necessary
2.	Regardless of the natural dynamics of the Estuary system, existing knowledge about the tidewater goby does not support the USFWS assertion that reduced wastewater inflow would be harmful to tidewater gobies. In fact, the Service itself seems to recognize the benefits that would likely accrue, stating 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	X		NOAA, FWS, United Water Conservation District, Entrix, and Nautilus Environmental have a completely opposite view with this comment. They believe that the discharge from the Facility enhances the Estuary and benefits the endangered species in the Estuary. See Response to Comment No. 1 to NOAA.	None necessary

Part 2 – Eliminating Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	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." The impacts of breaching on tidewater goby populations are certainly a concern; I have personally observed many tidewater gobies stranded after Malibu Lagoon breached during the summer after it attained a sustained high water level. Given these acknowledged benefits of reduced wastewater inflow, it is hard to understand the logic behind the Service's conclusion that reduced wastewater inflow could be harmful to the tidewater goby. Simply because "tidewater gobies are adapted to such fluctuations and have fared well in the Estuary for over 45 years under the current conditions" does not mean that reducing wastewater would be harmful to the gobies; to the contrary, our current knowledge about the ecology of the tidewater goby suggests it would be beneficial. The USFWS does mention two potential threats to tidewater goby populations, the African clawed frog and eutrophication, but the responses of these threats to reduced wastewater inflow is highly speculative. In fact, it is much more likely that continued wastewater discharge into the Estuary would ***increase*** eutrophication than decrease it due to the high nutrient levels in the treated wastewater.		X	The Estuary is not CWA 303(d) listed for eutrophication.	
3.	While the USFWS clearly is concerned about the sustainability of the tidewater goby population in the Santa Clara River Estuary, and I commend them for that worthwhile concern, it seems to me that their fear about the potential negative impacts of reducing the wastewater discharge into the Estuary is misplaced. In my opinion, the net effect on tidewater gobies of reducing wastewater discharge into the Estuary would be positive, mainly from reduced impacts from breaching.	X		See Response to Comment No. 1 to NOAA.	None necessary.
Letter from Heal the Bay and Wishtoyo Foundation Dated on June 6, 2007					
I.	**Santa Clara River Estuary Discharge**				
A.	**Regional Board staff appropriately deny an exception to the *Water Quality Control Policy for the Enclosed Bays and***		X	In accordance with this policy, the draft NPDES permit requires that the discharge be phased out, but not if it determines that the	None necessary

Part 2 – Eliminating Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	***Estuaries of California* for the VWRF discharge:** 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. Of note, the discharge from the VWRF is the only remaining permitted point source discharge to an estuary in the State of California. The discharger conducted numerous studies over the past several years with the goal of demonstrating enhancement to the Estuary. However, the studies do not indicate that the discharge is enhancing the Estuary. In fact, monitoring data provided in the reports show that the VWRF discharge is negatively impacting water quality in the Estuary. As outlined in Cleanup and Abatement Order No. R4-2006-0012 ("CAO"), the VWRF has chronically exceeded both permit limits and monitoring and reporting requirements – with at least 255 violations of effluent limits alone – under Order Nos. 00-143, R4-2003-0059, and R4-2004-0095. CAO at 4. Although we acknowledge that the City has made improvements to the treatment process over the last few years, the Tentative Permit and TSO indicate that the VWRF cannot consistently meet final effluent limits for mercury, silver, cyanide, copper, lead, nickel, zinc, chlorodibromomethane, dichlorobromomethane, bis(2-ethylhexyl)phthalate and nitrogen species even under the modified treatment process. Tentative Permit at 19. Thus, the Estuary is negatively impacted by these elevated discharges of metals and nutrients. In addition, the un-natural hydrologic conditions created by the discharge likely negatively impact resident species. For instance, more frequent breaching may impact the tidewater goby by decreasing their rearing habitat			Facility's discharge enhances the Estuary that would occur in the absence of the discharge. See Response to Comment No. 1 to NOAA.	

Part 2 – Eliminating Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	and washing individuals out to sea. Appropriately, the Regional Board concludes that the burden of proof that the discharge is enhancing the Estuary was not met. In fact in response to the discharger's studies, the Regional Board found that "[t]he results were highly inconclusive on whether the discharge is beneficial to the Estuary, or if there was enhancement." Tentative Permit at 29. Thus, the Tentative Permit does not provide for an exemption to the *Water Quality Control Policy for the Enclosed Bays and Estuaries of California*. Instead, the Tentative Permit calls for a phased removal of the discharge from the Estuary. Heal the Bay is in full support of this approach.				
B.	**Species, including the federally endangered tidewater goby, are negatively impacted by VWRF's direct discharge to the Estuary:** At the May 8, 2007 stakeholder meeting, several stakeholders raised concerns about potential impacts to the tidewater goby from a decrease in flow to the Estuary. They hold that removing the wastewater discharge may lead to less frequent breaching and algal growth that could impact the tidewater goby. However, stakeholders such as the Fish and Wildlife Service have not provided studies or other evidence that support this hypothesis. In fact based on monitoring data collected over the last permit cycle, we are concerned that continuing the direct discharge to the Estuary will actually **negatively** impact resident species. These impacts are discussed in detail below. Further, the Regional Board proposes extensive monitoring that will "…ensure that endangered species residing in the Estuary are not adversely impacted by the incremental decrease in flow." Tentative Permit at 7. This monitoring will act as a "safety net" in the event that impacts occur.	X		NOAA, FWS, United Water Conservation District, Entrix, and Nautilus Environmental have a completely opposite view with this comment. They believe that the discharge from the Facility enhances the Estuary and benefits the endangered species in the Estuary. See Response to Comment No. 1 to NOAA.	None necessary
	i. High nutrient loadings from the VWRF to the Estuary likely impact resident species by spurring algal growth and				

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	lowering DO levels. The City's own monitoring data show that the VWRF is a major source of nutrients to the Estuary. For instance, between 2001 and 2005 the annual average nitrate concentrations in the effluent were 11.3, 12.8, 13.9, 14.7 and 16 mg/l, respectively. In 2005, the nitrate effluent concentration reached 23.8 mg/l. These numbers are very high compared to nitrate limits of 8 mg/l set in neighboring watersheds (Malibu Creek and LA River). Notably, this level is intended to address the drinking water standard of 10 mg/l nitrate plus nitrite, which is necessary to prevent toxicity to human infants (methemoglobinemia, also known as blue baby syndrome). **It is not adequate to address aquatic life uses.** This is illustrated by the current Nutrient TMDL for Malibu Creek, adopted by USEPA in 2003, which provides a summer season water quality objective of 1.0 mg/l total nitrogen. One of the reasons the Tapia Water Reclamation Facility NPDES permit prohibits dry weather discharge from April 15 to November 15 is because of nutrient impacts on Malibu Creek and Lagoon. Moreover, Heal the Bay studied threshold values for nutrients and algal cover in Malibu Creek using an empirical reference site approach and found that "[p]eriphyton cover exceeded nuisance levels (*i.e.* 30% cover) whenever average nitrate concentration was greater than 0.1 mg/l or average phosphate concentration was greater than about 0.15 mg/l." S. Luce and M. Abramson, *Periphyton and Nutrients in Malibu Creek* (2004). In comparing the VWRF data to the 8 mg/l limit, and even more appropriately the 0.1 to 1 mg/l objectives, it is evident that VWRF is discharging nutrients at levels which are very likely causing negative impacts to the estuarine environment.		X	Currently, there are no nitrogen Water Quality Objectives specified for the Santa Clara River Estuary, except for 10 mg/L, based upon the Maximum Contaminant Level to protect human health. The nutrient numeric endpoints for California estuaries to protect aquatic life are still at developing stage. The Estuary is not impaired for algae, low DO level, ammonia, and nitrogen compounds. In addition, the eutrophication associated with algal growth has never been reported in the Estuary.	None necessary
	Based on Heal the Bay's extensive monitoring experience in the Malibu Creek Watershed over the last eight years, the final nitrate and nitrite effluent limit of 10 mg/l is far too high. The Regional Board should closely evaluate SCRE monitoring data over the life of the current permit and assess, based on ambient nutrient concentrations and ecological assemblage analysis,		X	The only enforceable and justifiable objective for nitrogen species is specified in the Regional Board's Basin Plan, and that limit has been placed into the tentative Order.	None necessary

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	what a protective nitrate and nitrite effluent limit should be.				
	Elevated nutrient concentrations in POTW discharges can be extremely problematic in these types of stream systems. For instance, high levels of nutrients and slow moving water can lead to eutrophication and excess algal growth. In addition, elevated nutrient levels can lead to low dissolved oxygen concentrations that can negatively impact aquatic life. *See, e.g.*, Richard Ambrose and Antony Orme, *Lower Malibu Creek and Lagoon Resource Enhancement and Management* (May 2000) at 8-16. ("Elevated nutrient and freshwater inputs are the primary anthropogenic causes of eutrophication. As described earlier, the lower [Malibu] creek and lagoon receive unnaturally high nutrient inputs from point and nonpoint sources within the watershed. Coupled with elevated freshwater flows and resulting low salinity levels, these nutrients promote conditions favorable to the growth of algae and other macrophytes. When these organisms die and decay, they consume dissolved oxygen in the lower creek and lagoon, completing the eutrophication cycle.").		X	See Response to Comment No. i to Heal the Bay and Wishtoyo Foundation.	None necessary
	In this case, existing water quality data indicate that DO levels are low during certain sampling events in the Estuary. For instance, Table 4-1a of the Resident Species Study provides average DO data from nine sampling stations throughout the Estuary. The lowest average DO values are 3.81 and 0.28 mg/l at sites B-1 and B-2, respectively. Resident Species Study at 4-1a[1]. Interestingly, these locations are the closest sampling sites to the VWRF discharge. It is also unlikely that these DO measurements were taken during the pre-dawn, critical conditions. A study in Malibu Creek performed by the Southern California Coastal Water Research Project found that high nutrient levels in Malibu Lagoon led to DO levels of 0 mg/l in the pre-dawn conditions. Obviously, low DO levels in the SCRE	X		Regional Board staff agree. Measuring DO in the receiving water must be conducted in the pre-dawn in order to evaluate the possible impact of the low DO levels on the Estuary, because there is no photosynthesis to generate oxygen during the night and all aquatic life depletes DO during the night.	Some changes have been made.

[1] Of note, much of the DO data in Tables 2-6, 2-7 and 2-9 are very suspect as levels above 20 mg/l are rarely found in Southern California estuaries. SCRE Report at 30. For instance, Heal the Bay has amassed many years of DO monitoring in Malibu Creek and has never even once found DO concentrations at these elevated levels. Concentrations ranging as high as 322 mg/l are completely unrealistic.

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	can have deadly impacts to the resident species such as the tidewater goby.				
	ii. Un-natural breaching will likely negatively impact the tidewater goby. As acknowledged in the Resident Species Study, "[t]he SCRE…is unique among southern California estuaries owing to the constant freshwater influx from the VWRF." Resident Species Study at 7-1[23]. Given this, there can be little doubt that the VWRF discharge has altered the seasonal variation in hydrology. The discharge in the dry season likely represents an un-natural condition. As acknowledged in the SCRE Report, "…it appears the existing Santa Clara River lagoon is experiencing more frequent breaching events than under natural conditions, especially during the summer periods due to treated effluent inflows." SCRE Report at 167. The more frequent breaching events likely negatively impact resident species such as the tidewater goby. In fact, the discharger's 2004 study entitled *VWRF Discharge Beneficial uses on the Distribution and Utilization of Santa Clara River Estuary Tidewater Goby* ("Goby Report") alludes to this fact. Monitoring efforts associated with the Goby Report and other studies conducted in the SCRE found that tidewater gobies were abundant and widespread in the Estuary when it had been closed to the ocean for a long time. Goby Report at 2-10. Further, the Goby Report states that the amount of goby spawning and rearing usable area decreases dramatically when the SCRE is open to the ocean, and the breaching events can	X		NOAA, FWS, United Water Conservation District, Entrix, and Nautilus Environmental have a completely opposite view with this comment. They believe that the breaching enhances the Estuary and benefits the endangered species in the Estuary. See Response to Comment No. 1 to NOAA.	None necessary

[2] The SCRE Report compares the Santa Clara River Estuary to Malibu Lagoon because they are the only estuaries in the Southern California BIGHT that have freshwater contribution from a wastewater treatment facility. Resident Species Study at 5-7. In contrast, the Tapia wastewater treatment facility has a discharge prohibition to Malibu Creek in the dry season between April 15 and November 15. Order No. R4-2005-0074. One reason behind the summer discharge prohibition is that the discharge creates an un-natural hydrologic condition in the Lagoon that could possibly lead to summer breaching of the berm.

[3] Of note, Section 5.0 of the Resident Species Study does not include the most recent data. For instance, Batiquitos Lagoon has been dredged and restored and is open year-round. Also, there are several reports and peer-reviewed papers authored by Dr. Richard Ambrose at UCLA on Malibu Lagoon that were not included in the review presented in the Study.

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	leave the goby breeding burrows completely dewatered. Goby Report at 5-2. In Malibu Lagoon, more frequent breaching during sensitive periods led to significant tidewater goby mortality. These impacts have been well documented by State Parks and the Santa Monica Mountains Resources Conservation District. Thus, the less frequent breaching that will result from the removal of the discharge to the Estuary will likely have a positive impact on the tidewater goby population.				
C.	**The discharger should explore water re-use and upstream discharge alternatives in greater detail:** Many stakeholders including Heal the Bay have indicated that a water re-use alternative should be aggressively pursued. At the May 8, 2007 meeting, the discharger presented the findings of a recycled water market assessment. The report concludes that the demand for recycled water market is a maximum of 1.9 mgd. Thus, they found that expanding this market alone will not use all of the treated water. The assessment makes several assumptions that are limiting. First, the water market is only evaluated within the City limits. There may be a sizeable market for recycled water in the surrounding unincorporated areas where these are enormous tracts of farm land, including farms that produce non-food chain crops such as sod farms. In addition the discharger should explore advanced treatment and water storage, as this could increase the market demand for recycled water. Expanding the recycled water market in combination with enhanced water conservation efforts could be a viable alternative to Estuary discharge.	X		Regional Board staff will encourage the City to continuously expand the recycled water market in combination with enhanced water conservation efforts. Such a statement has been added in the revised permit.	Change has been made.
	Another alternative to Estuary discharge that has not been explored in much detail is upstream discharge. Upstream discharge of denitrified effluent would allow time for the water to percolate into the ground and cause less direct impact to the SCRE. In addition, this alternative would allow for continued freshwater flows into the Estuary.		X	Moving the discharge upstream could be an option. However, during meetings held at the Ventura WRF on March 27, 2006 and June 12, 2006, discharge moved to upstream may not solve the problem, because the treated wastewater will eventually flow back to the Estuary. The cost of constructing pipelines is very expensive, and the treated wastewater would have been pumped upstream. In addition, the adverse impacts on upstream are unknown.	None necessary

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	An ocean outfall discharge is another alternative that has been discussed during various stakeholder meetings. While this would bring the discharger into compliance with the Bays and Estuaries Policy, this alternative is less preferable than those discussed above. Heal the Bay is a big proponent of beneficially re-using water to the greatest extent possible before ocean discharge is pursued. Although it is important for the discharger to be evaluating alternatives for disposal of the treated water, an alternatives analysis is only applicable to the current permit renewal if the Regional Board requires the completion of an alternatives analysis as a special study. We support such a requirement.	X 	 X	Regional Board staff agree. The California Water Code, Section 13360 specifically prohibits the Regional Board from specifying the manner of compliance with permit, requirements, prohibitions, etc Therefore, the suggested requirement is inappropriate.	None necessary None necessary
D.	**The current VWRF discharge degrades the Estuary from a Chumash cultural resources perspective:** The Santa Clara River is the crossroads of the Chumash Nation, which extends from Malibu to Morro Bay, and from Kern County to the Pacific coast. Two Chumash village settlements have been identified with the Santa Clara River--Kanapueteqnon and Muwu. Within the Santa Clara River watershed, tribal members continue to harvest natural resources including grasses for basket materials, ceremonial plants and stones, willow plants, sage, tule (cattail) plants, soapstone for making beads, bowls, and ceremonial pipes. The tribes have traditionally used the deer and steelhead as sources of food and trade among the villages that once spanned the length of the watershed. "Many village sites are located on stream levees that form high ground on the plains…Such locations were chosen by people for village and camp sites. Wetland areas are rich in resources. Lagoons and marshes are often ringed by a series of prehistoric sites."[4]	X		Regional Board staff agree with general description of the Chumash Nation but "the resident species composition" stated at the very end of the comment that we do not agree with, because there are no data of the resident species composition available prior to the discharge 45 years ago. See Response to Comment No. 1 to NOAA.	None necessary

[4] Parsons, Jeff, "Ormond Beach Paleo-Environments and their Archaeological Significance," prepared for Topanga Anthropological Consultants, 2004.

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	The River watershed is home to a condor population released by the Chumash Nation fourteen years ago. The condor symbolizes a sacred bond, a lifting of the spirits of the Chumash ancestors. Development that threatens the continued existence of the condor also threatens the sacred relationship between the Chumash and the condor that has existed for thousands of years. Natural open lands, not yet influenced by the impending development, along the River continue to play an important role in the ceremonial and religious practices of tribal members. Reburials and naming and healing ceremonies are still conducted along the river and pictographs and rock paintings close by illustrate the historical and cultural importance of the waterway to indigenous peoples. Three traditional cultural sites listed on the state of California's Sacred Lands Inventory maintained by the Native American Heritage Commission are located within one or two miles of the river and the watershed is home to over four hundred known archaeological sites. This river is a network of villages, gathering areas and ceremonial places. It has been a life source of survival for Native people for thousands of years. Thus the discharge to the SCRE over the last forty-five years has impacted this cultural resource of the Chumash Nation by greatly modifying its natural hydrology and the resident species composition.				
II.	**Specific Tentative Permit and TSO Comments**				
A.	**The TSO and Interim Limits inappropriately perpetuate the cycle of non-compliance:** The proposed TSO provides interim limits for ammonia, total nitrogen, nitrite and nitrate. Regional Board staff reason that the discharger cannot meet final effluent limitations since the full NDN process is not yet installed. Of note, full NDN has been in place for many local POTWs in Ventura and Los Angeles counties for years. Further, the Tentative Permit provides interim effluent limitations for mercury, silver, cyanide,		X	The limitations in the proposed permit for ammonia, total nitrogen, nitrite and nitrate are newly imposed limitations that were not in the existing NPDES permit, therefore, interim limits and a compliance schedule are warranted. Further, limitations for copper, lead, mercury, silver, and zinc are new limitations, based upon saltwater criteria, metal translator factors for copper and zinc, and water effect ratio for copper. Therefore, the compliance	None necessary

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	copper, lead, nickel, zinc, chlorodibromomethane, dichlorobromomethane, bis(2-ethylhexyl)phthalate. Tentative Permit at 19. Four of these constituents (silver, chlorodibromomethane, dichlorobromomethane, and bis (2-ethylhexyl)phthalate) are new interim limits that were not in the current NPDES permit. Also a less stringent interim limit for zinc than was previously permitted is provided in the Tentative Permit. Heal the Bay has significant concerns that the proposed TSO and Tentative Permit allow yet another excessive length of time for the City of San Buenaventura to achieve compliance with final effluent limitations that it has been subject to, and in violation of, for many years. At this juncture, the Permittee has had sufficient time to obtain compliance with permit limits. In fact, the Regional Board has already extended the compliance deadline an astounding five times since 2000 (see Order Nos. 00-144, 02-0195, 03-0059, 06-0034, 06-0093). Sequential compliance schedule exceedances are a chronic problem throughout the State and are one of the strongest arguments being considered by the State Board in their efforts to potentially modify statewide compliance schedule policy. The most recent Time Schedule Order, TSO No. R4-2006-0093 adopted in December 2006, gave the Permittee until December 31, 2007 to meet final effluent limitations for copper and nickel. The proposed TSO now provides another extension of these limits. When will the Permittee finally be held accountable for complying with a TSO and meeting final effluent limits? With this precedent, how will any discharger take a TSO seriously? How will receiving waters as critical as Santa Clara River Estuary ever be protected? Given the City's record of non-compliance and ineffectiveness during previous efforts to achieve full compliance, the Regional Board should require the Permittee to meet *final* effluent limits immediately. Expanding and weakening the interim limits is particularly inappropriate.			schedule and interim limits are warranted. The City has made progress on reducing metals, cyanide, trihalomethanes (THMs), and bis(2-ethylhexyl)phthalate removal in the discharge, and the only proposed interim limit is for copper, and that has been ratcheted down, according. The Discharger has installed ammonia addition equipment at the Facility since April 2004. The purpose of installing this equipment is to reduce the amount of chlorine added, which results in decreasing the formation of dichlorobromomethane and dibromochloromethane. Based upon the revised reasonable potential analyses, there are no reasonable potential to exceed the CTR-based criteria of dichlorobromomethane, dibromochloromethane, cyanide, and bis(2-ethylhexyl)phthalate. Therefore, there are neither effluent limits nor interim limits for dichlorobromomethane, dibromochloromethane, cyanide, and bis(2-ethylhexyl)phthalate.	Some changes have been made.
B.	**The Regional Board appropriately uses saltwater criteria in calculating effluent limitations:**				

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	The Regional Board appropriately uses saltwater criteria in calculating effluent limits, as the Santa Clara River Estuary is a ***saline*** environment. The Estuary supports numerous marine species and freshwater species. As stated in the VWRF's NPDES permit, "[i]n order to protect the beneficial uses, the limits for both fresh and salt water were compared, and the more stringent of the two was used to set each effluent limit within this permit. In this manner, the Regional Board is protecting the most sensitive environmental beneficial use." Order No. 00-143 at 3. This is an appropriate approach to take in the Tentative permit as well. The bottom line is that an Estuary is ***not*** a freshwater environment, so the more stringent saltwater criteria should be maintained in order to meet water quality standards and protect the estuarine environment.	X		Regional Board staff appreciate the support from the Heal the Bay on this matter.	None necessary
C.	**The Tentative Permit should include a daily maximum toxicity trigger:** The Tentative Permit includes a monthly median toxicity trigger of 1.0 TUc. Tentative Permit at 19. Other recently adopted NPDES permits include a monthly median toxicity trigger **and** a daily maximum trigger of 1.0 TUc (i.e. Burbank Water Reclamation Plant NPDES Permit at 36) Why is the Tentative Permit different than the others in regards to a toxicity trigger? This is unconscionable in light of the critical ecological resources in the SCRE and the Santa Clara River Watershed. Toxicity testing is the safety net for NPDES permits because permits do not require monitoring or have limits for all constituents that can cause receiving water toxicity. Thus, it is important to have a daily maximum trigger as well as a monthly median trigger. Regional Board staff should include a daily maximum toxicity trigger of 1.0 TUc in the Tentative Permit.		X	Although the recently adopted NPDES permits include a monthly median toxicity trigger and a daily maximum trigger of 1.0 TUc, the daily maximum trigger of 1.0 TUc has never been used as a required trigger for the implementation of accelerated chronic toxicity testing. Therefore, the Tentative Permit that only prescribes a monthly median toxicity trigger of 1.0 TUc is consistent with recently adopted NPDES permits. In the recently adopted NPDES permits, the daily maximum trigger of 1.0 TUc, when exceeded, serves as a warning for the Discharger that they may not be able to meet the monthly median of 1.0 TUc. When the daily maximum is triggered, the Discharger may collect additional samples to provide the Discharger the opportunity to meet the monthly median.	None necessary
D.	**The Regional Board should include an actual toxicity limit:** The Tentative Permit provides a 1 TUc "trigger" in accordance with State Board Order NO. WQO 2003-0012 which defers the issue of numeric chronic toxicity limits until a later date. The		X	Regional Board staff believe that the commenter requested a chronic toxicity limit instead of an acute toxicity limit in the Tentative Permit. Regional Board staff agrees that toxicity limits	None necessary

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	Regional Board should encourage the State Board to develop an appropriate numeric chronic toxicity limit as soon as possible. Too many major NPDES permits have gone forward without numeric effluent limits for chronic toxicity. As you would likely agree, toxicity limits are the safety net for NPDES permits because permits do not require monitoring or have limits for all constituents that can cause receiving water toxicity. An effluent limit of 1 TUc would protect beneficial uses and meets the narrative toxicity objective set forth in the Basin Plan.			are the safety net for NPDES permits because permits do not require monitoring or have limits for all constituents that can cause receiving water toxicity. The Regional Board has encouraged the State Board to develop an appropriate policy regarding the numeric chronic toxicity, as soon as possible, during hearings and during stakeholder meetings. However, the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential were under review by the State Water Resources Control Board (State Board) in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Board adopted Order No. 2003-0012 deferring the issue of numeric chronic toxicity effluent limitations until Phase II of the State Implementation Plan (SIP) is adopted. In the mean time, the State Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. This permit contains a similar narrative chronic toxicity effluent limitation, with a numeric trigger for accelerated monitoring. Phase II of the SIP has been adopted, however, the toxicity control provisions were not revised. On January 17, 2006, the State Board Division of Water Quality held a California Environmental Quality Act (CEQA) scoping meeting to seek input on the scope and content of the environmental information that should be considered in the planned revisions of the Toxicity Control Provisions of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. However, the Toxicity Control Provisions of the SIP continue unchanged. This Order contains a reopener to allow the Regional Board to modify the permit, if necessary, consistent with any new policy, law, or regulation. Until such time, this Order will have toxicity limitations that are consistent with the State Board's precedential decision.	

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E.	**The Monitoring and Reporting Program should include extensive ecological monitoring:** Appropriately, the Regional Board proposes extensive monitoring to "…ensure that endangered species residing in the Estuary are not adversely impacted by the incremental decrease in flow." Tentative Permit at 7. The monitoring should include fish and macroinvertebrate assessment. An Index of Biological Integrity score should be calculated from annual macroinvertebrate surveys.	X		Regional Board staff agree. The monitoring should include fish and macroinvertebrate assessment. An Index of Biological Integrity score should be calculated from annual macroinvertebrate surveys.	Suggested change has been made.
	This monitoring will act as a "safety net" in the event that impacts occur. If the monitoring indicates a major problem that the Regional Board and Resources Agencies determine is a direct result of reduction in effluent discharges, then and only then, shall the permit terms be revisited.	X		Regional Board staff agree that the monitoring including fish and macroinvertebrate assessment acts as a "safety net".	Suggested change has been made.
F.	**The Regional Board should maintain the frequency of monitoring for priority pollutants:** The Tentative Permit reduces the frequency of monitoring for numerous priority pollutants from monthly or quarterly to semiannually. Tentative Permit at F-52. Regional Board staff reason that these constituents did not demonstrate reasonable potential to exceed water quality standards, so more frequent monitoring is not necessary. Although reasonable potential was not triggered for these pollutants, semiannual monitoring is too infrequent to capture any changes or upsets in the system. Thus, the Regional Board should maintain quarterly monitoring for these priority pollutants.		X	Consistent with all of the POTW permits adopted by the Regional Board since the RPA procedure was developed in the SIP (in 2000), priority pollutants not showing RP have a monitoring frequency of semiannually because they are not expected to be present in the effluent.	None necessary
G.	**Miscellaneous:** • Mass emission limitations are based on the plant design flow rate of 14 mgd. Tentative Permit at F-22. This is not protective of receiving waters. The Regional Board should use the average effluent discharge flow, as this number represents the actual flow volume. By utilizing the design		X	40 CFR Part 122.45(b)(1) reads as follows, "In the case of POTWs, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow." The mass-based limits are consistent with Federal requirements and do not need to be changed.	None necessary

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	flow, the Regional Board is allowing much higher mass emissions than is merited based on plant operation. • The Tentative Permit requires that the discharger submit an "interim" Spill Clean-up Contingency Plan. Tentative Permit at 31. Why is this plan "interim"? When is the final plan to be submitted?	X		To make it clear, we deleted "interim" from this sentence: "Within ninety days, the Discharger is required to submit <u>a</u> ~~an interim~~ Spill Clean-up Contingency Plan, which describes the activities and protocols, …"	Suggested change has been made.
	• Regional Board staff use a hardness value of 400 mg/L to calculate several of the metal effluent limits. The Tentative permit states that the discharger provided receiving water hardness data ranging from 250-7500 mg/L and that 400 mg/L was used since "most" of the values were greater than 400. Tentative Permit at F-33. What is meant by "most"?	X		Hardness data monthly collected from five receiving water monitoring stations between January 2002 and December 2006 show that 4 of 967 are less than 400 mg/L. Regional Board staff will modify the statement as "Since most of the receiving water hardness data (963 of 967) are greater than 400 mg/L as $CaCO_3$, …"	Change has been made.
	• The Tentative Permit states that "[t]he addition of iron salt improved removal of copper (18.0 ug/L to 26.5 ug/L)…." Tentative Permit at 8. This appears to be a typographical error, as this represents an increase in the concentration of copper.	X		Regional Board staff agree. The typographical errors have been corrected as "the addition of iron salt improved removal of copper (~~18.0~~ <u>26.5</u> ug/L to ~~26.5~~ <u>18.0</u> ug/L)…."	Corrections have been made.
	<u>CONCLUSION:</u> The Estuary is part of a natural preserve and is an important ecosystem. As such, it should not continue to be altered by wastewater effluent discharges. Given the high probability that the VWRF discharge has negatively impacted and continues to impact the Estuary habitat and water quality, the discharger has failed to meet the threshold for an exception set forth in the EBE Policy – that the discharge is enhancing the Santa Clara River Estuary. Thus, in the Tentative Permit **appropriately requires the discharge to be incrementally removed from the Estuary** in order to comply with the *Water Quality Control Policy for Enclosed Bays and Estuaries of California*. Simply put – two wrongs do not make a right. While upstream diversions and runoff may decrease natural flows and worsen	X		Regional Board agree	None necessary

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	water quality, this is not a valid reason for the VWRF to continue to impact the Santa Clara River system. This is not consistent with Porter-Cologne or the overall intent of the EBE Policy. The Regional Board should explore upstream impacts and require a flow characterization study in the lower part of the watershed to better understand the impacts of river diversions on downstream flows to the SCRE. Regardless, species such as the tidewater goby will likely be more impacted by maintaining the status quo due to water quality impacts and more frequent breaching events than under the scenario where the discharge is eliminated. Further, the Regional Board is requiring extensive monitoring of the goby population to identify any issues that may result. In 1998 the Regional Board required Tapia to remove its discharge to Malibu Creek during the summer season (April – Nov). Yet there is no indication that the tidewater goby population was impacted in Malibu Lagoon (Dagit and Swift 2005). Maintaining the status quo in SCRE will allow for continued water quality and habitat degradation. Thus, it is imperative that the discharge be removed as recommended by the Regional Board.				