Items 21
Response to Comments
for
Tentative Order Dated February 20, 2008

City of San Buenaventura
Ventura Water Reclamation Facility
Tentative NPDES Permit

(The following Table summarizes the comments received from interested parties with regard to the above-mentioned facilities' Tentative Permit.)

Part 1 – Maintaining Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
Letter from City of San Buenaventura Dated on February 7, 2008					
1.	**<u>Studies Required by the Tentative Permit</u>** The City of San Buenaventura (City) believes that it understands the Regional Board's direction, provided at the December 6, 2008 Workshop and in recently held stakeholder meetings, to conduct additional studies to confirm the importance of continuing tertiary treated discharge to Estuary beneficial uses, and the exact volume reclaimed flows necessary to optimize and protect those beneficial uses, and functions and values of the Estuary. We further understand the Regional Board's guidance that Ventura Water Reclamation Facility (VWRF) should be preparing for increases in the volume of influent that are likely to result from a variety of sources, including not only local population growth, but also from a proliferation of influent sources, due to changing regulatory requirements and improvement in treatment processes. The City agrees with the Regional Board that, in the current environment, given water supply concerns, anticipated regional population growth, climate change impacts, and the pure resource value of water, the City must be very proactive in its efforts to treat and manage new influent sources for water reuse, rather than discharge.			No response necessary.	None necessary.

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	Accordingly, under the requirements of the Tentative Permit and with the guidance of Board staff, the City expects to:				
	• continue to conduct site-specific research for the Estuary to confirm and assure optimal discharge practices for continued protection and enhancement of beneficial uses (Estuary Study);	X		Estuary Study is a part of 1) a system-wide analysis and 2) a Comprehensive Plan, which were directed by the Board at the December 6, 2007 Workshop.	Changes made.
	• prepare additional research, that takes a critical look at conclusions of the Estuary Water Balance and Reclamation Market Study, and thoroughly evaluates discharge practices and increased effluent reclamation to most appropriately conserve water and address future increases in influent flow. The City believes this new research can serve to advance our long-range water resource planning efforts, as well as provide support to future water quality and water supply improvement plans. This study could also investigate the feasibility of expanding the use and function of existing and new constructed wetlands. (Reclamation Study);	X		These Studies have been added.	Changes made.
	• continue to actively participate in watershed planning efforts that will add to the existing regional data and develop a long-term integrated plan to conserve and improve watershed water quality;	X		This is also a part of 1) a system-wide analysis and 2) a Comprehensive Plan, which were directed by the Board at the December 6, 2007 Workshop.	None necessary.
	In general, we request that the Tentative Permit requirements be revised to reflect these three study efforts that the City understands the Regional Board expects to be conducted pursuant to the final permit.	X		A Finding that these three studies have been conducted has been added in the revised Order.	Changes made.
	In addition, in order for the Estuary Study to be successful in deepening our understanding of the role that volume of discharge plays in the biological and hydrological function of the Estuary, it must build upon, and be designed to collect data in a manner that takes into account, the prior research, studies and available data. For example, the Estuary Study should recognize, and a work plan devised for the Estuary Study should take into account:	X		Regional Board staff agree that the prior research, studies and available data should be used to deepen the understanding of the role which volume of discharge plays in the biological and hydrological function of the Estuary. However, as far as the conclusion of the City from the previous Estuary Study that the discharge from the VWRF does enhance the Estuary, the Regional Board presently has inadequate information with which to determine whether, and to what extent, the discharge that could be authorized by this permit continues to constitute an enhancement. The Board also presently lacks the information necessary to determine what, if any, negative impacts would	Changes made.

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				occur to the Estuary if the discharge was prohibited, and therefore lacks the current information necessary dispute the previous enhancement finding. The Board has conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge. Because of the lack of information available to the Regional Board, during the December 6, 2007 workshop, the Regional Board directed staff to investigate further on: 1. What is the optimum flow to maintain the estuary and the endangered species? Is the current 9 mgd annual average optimum; Will 15 mgd be detrimental? 2. How does the flow from the plant affect groundwater? Does it really "back-up" groundwater flow? 3. What is the optimum flow in the River needed to sustain endangered species? 4. What will happen if the flow is reduced? Will the Estuary shrink and there be less habitat available to the endangered species? The Regional Board also directed staff to: 1. Work with Stakeholders; 2. Look at a system-wide analysis; 3. Look at the feasibility of an upstream discharge, conservation measures, more percolation, or the construction of wetlands; 4. Look at the impacts to other species, such as Terns; 5. Come back with information that would give the Regional Board a better measure of what "Enhancement" is; and 6. Bifurcate the issues of the permit revision and a finding of enhancement.	
	• The City's current programs and the data generated thereunder, to monitor fish and invertebrate populations, including the existing benthic macro invertebrate monitoring program. This data should be built upon, and should not		X	The long-term monitoring/data collections/studies are necessary to provide the final Board's decision of whether the discharge enhances the Estuary. Therefore, the City is required to conduct these existing and future monitoring/data collections/studies.	None necessary.

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	be made obsolete; • Available existing and future information (as it is generated) regarding the availability, chemical composition and relative water quality of other potential water inputs to the Estuary; • Existing programs to monitor the status of the Estuary berm and lagoon closure on a daily basis; • Existing available information regarding sediment quality, and the minimal benefit, particularly when compared to costs, of generating additional sediment quality or toxics identification information, given currently available scientific information that concludes that sediments in the Estuary present no material toxicity or water quality concerns; • Rigorous biological and water quality monitoring programs already in place for the estuary. In addition, it will be critical as the City prepares a work plan to implement the next Estuary Study and Reclamation Study that the Regional Board provides guidance and approval with respect to purposes, objectives, and preparers of, and specific guidelines for the Studies, including, by way of example only, guidelines such as: appropriate indices to use for purposes of comparison of collected biological data (such as appropriate indices for use in southern California estuarine environments for interpretation of macro invertebrate data); guidance with respect to appropriate ways to account for the relationship of continuous discharges from Lake McGrath, agricultural runoff and seepage, and other surface runoff to predicted and observed water balance, biological, and water quality impacts; information regarding the ways in which data will be used that is collected; information regarding the indicator values that will be assigned to data collected; and safe ways to approach discharge volume questions that will not potentially result in take or adverse modification of habitat. The Regional Board needs to participate sufficiently in the design and implementation of the Estuary Study and the Reclamation Study so that the Board has independent confidence in the conclusions of the Studies, and the significant expenditures required to conduct the Studies are not wasted.		X	Regional Board staff agree to be part of the stakeholder process, as they have been in the past, and to continue to provide guidance for the Estuary Study. The Work Plan is required to be developed **with the input of the trustee resources agencies, environmental groups, stakeholders, as well as other interested parties**. However, the City will ultimately be responsible for submitting the Work Plan to the Regional Board within six months of the effective date of this Order and obtain the approval of the Executive Officer to conduct related studies. Regional Board staff understand and expect that not all stakeholder input will be relevant or necessary and that the City will focus on study subjects that will relate to the issues of enhancement of the Estuary.	None necessary.

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	Further, if the Regional Board feels that evaluation and participation in design of the Estuary Study and Reclamation Study are critical to Board confidence in the results of those Studies, the Board must use the statutory authority that it has, but the City does not, to assure participation in the preparation of the work plan by multiple-stakeholder interests. The City can only achieve a work plan development process that is conducted in collaboration with watershed stakeholders, and can only prepare Studies that garner the confidence of the wide variety of stakeholder if the Regional Board is committed to participating in the preparation of the work plan and the Studies, and is willing to exercise jurisdiction and influence, and provide guidance as necessary to attain stakeholder participation, and input, and to guide the content of the studies. The City has no authority to mandate stakeholder participation, and cannot be held liable for enforcement actions should stakeholders decline to participate in the studies that the Tentative Permit mandates.		X	Regional Board staff understand and expect that not all stakeholder input will be relevant or necessary and that the City will focus on study subjects that will relate to the issues of enhancement of the Estuary. It is expected that not all of the previous stakeholders will continue to show interest in these matters. However, the requirement is that the City **considers** the input of the stakeholders, not necessarily exact every wish of the group.	None necessary.
	The Tentative Permit provisions should be revised to: • identify the types of studies anticipated, as outlined above; • address the need to design the studies based on existing information and programs; • address the need for ongoing participation in and guidance from the Regional Board in the development and implementation of the studies, to assure their appropriate content and Regional Board confidence in their results; and • address the fact that the Regional Board, not the City has the authority and influence to assure stakeholder participation in the development and implementation of the Studies.		X	The requirements of the Work Plan are broad by design to facilitate and consider the input of the stakeholder group.	None necessary.
	In addition to conducting the additional Estuary Study and Reclamation Study, the City remains committed to participating in the regional watershed-wide planning and management efforts presently underway. We submit that, as we have agreed in our stakeholder meetings, the Estuary Study and Reclamation Study would be appropriate for the City to lead		X	The requirements of the permit do not require the City to necessarily conduct a Region-wide, Watershed-wide effort. Regional Board staff recognize that the issues should be related to the subwatershed area of the Estuary. However, other aspects of the Watershed should be **considered**, such as future releases from the current upstream diversions.	None necessary.

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	and conduct. Further, the City should participate in, and provide information and data to, watershed-wide planning and management efforts presently underway, including the studies sponsored by the United Water Conservation District and the Santa Clara River watershed study However, contrary to the current requirements of the Tentative Permit, these watershed-wide efforts do not need to be replicated by a City-led and funded study. The Santa Clara watershed is one of the most comprehensively studied watersheds in Southern California. Existing watershed planning and management efforts are well-designed, and the City has no special expertise, authority or jurisdiction that could improve upon their conduct, focus or participation. Therefore, burdening an individual discharger with an overly-broad duplicative watershed study that is detached from any possible influence of the VWRF discharge is not reasonable. With respect to studies to address inundation of McGrath State Park, while the City sympathizes with the difficulties created for the Park by the periodic inundation associated with the wet season and the presence of peak flows in the Santa Clara River, additional study of the situation is not likely to provide currently unavailable information. It must be recognizes that the Park was built on land reclaimed from the original Santa Clara lagoon and estuary. McGrath Lake is indeed the historic mouth of the Santa Clara River. The potential for inundation of portions of the Park has existed historically, and since its inception, the Park has manually breached the lagoon berm to alleviate naturally induced Park inundation resulting from wet weather and peak river flows. The City cannot currently control or address, and additional information will not reverse prior decisions to locate the Park on low-lying areas of the original Santa Clara floodplain and lagoon, prior flood control and levee construction decisions, or current peak river flows. At best, the City can, and remains committed to, working with the Park to implement operational activities that reduce or minimize wet weather inundation.		X	The provisions of the permit only require that this flooding be considered with respect to endangered bird species and other animals, as flooding may cause the loss of nesting habitat at the State Park. The relationship of the City's discharge to flooding at the State Park has not been established.	None necessary.

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	Based on our recent stakeholder meeting with the Regional Board, and the points summarized above, the City requests that the Regional Board revise the Tentative Permit and require the City to conduct the two studies discussed above and determined most appropriate for implementation in recent stakeholder meetings: the Estuary Study and the Reclamation Study. The Tentative Permit should also be revised to reflect provisions that call for the studies to build upon existing information, collect useful and appropriate data, and to reflect purposes and objectives designed to confirm and assure that the VWRF discharges continue to enhance the Estuary in an optimal way, and that the Ventura reclamation facilities are designed in a manner that achieves both appropriate water supply and conservation goals, while providing for the protection of Estuary beneficial uses. The Tentative Permit must eliminate provisions requiring duplicative watershed-wide planning and management studies, unnecessary sediment quality and toxicity identification studies, and inappropriate studies of McGrath State Park inundation.		X	As mentioned previously, the requirements for the Studies to be conducted by the City are broad enough to accommodate any proposals by the City. The proposals will be submitted in the Work Plan, and ultimately reviewed by Regional Board staff and if warranted, approved by the Executive Officer.	None necessary.
2	**The Water Quality Control Policy for Enclosed Bays and Estuaries of California [1] (Enclosed Bays and Estuaries Policy or EBE Policy) and Enhancement of the Estuary** In general, the City supports the direction that the Regional Board has taken in the Tentative Permit, allowing maintenance of VWRF discharge, and eliminating from the Tentative Permit those draft provisions that required reduction and eventual elimination of reclaimed flows from the Estuary. Given its commitment to environmental stewardship, the City supports this new direction because the overwhelming weight of scientific evidence, information, findings and conclusions (including the evidence and conclusions of the previously mandated and completed Enhancement Study and related Estuary biological, water quality and other technical studies), and the great weight of scientific information and opinion presented by experts (including information and opinion presented by renowned tidewater goby expert, Dr. Camm Swift,		X	The City opinion that the discharge enhances the estuary is on record. However, the Regional Board has directed its staff to obtain more information on this matter **before they can make the finding of enhancement**. That is the purpose of the required studies. Once there is enough information that supports the Board's finding of enhancement, if appropriate, the permit will be reopened for that purpose.	None necessary.

[1] State Water Quality Control Board Resolution No. 95-84, November 16, 1995.

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	the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service (NMFS) (collectively, the "Trustee Agencies")) support the determination that reduction or elimination of VWRF discharges would have (1) degraded the chemical integrity and quality of water within the Estuary, (2) resulted in "take" of the tidewater goby and potentially steelhead trout, as well as "adverse modification" of designated critical habitat for both species, in violation of the federal Endangered Species Act;[2] and, (3) adversely impacted beneficial uses in the Estuary, including, without limitation EST, MAR, WILD, RARE, MGR, SPAWN, and WET. While the City understands the Regional Board's consideration of opinion presented at stakeholder meetings and comments made in support of reducing and eliminating flows to the Estuary, we appreciate the Board's current recognition in the Tentative Permit that the Trustee Agencies did not concur with, or support opinion favoring reduction or elimination of flows. We also appreciate that the Board has considered the significance of the fact that such opinion is based on unsubstantiated extrapolation of study findings that addressed lagoons and water bodies that are physically very different from the Estuary in terms of water quality, chemical composition, and hydrological and biological function and value. Because the City supports the environmentally protective direction taken by the Regional Board in the Tentative Permit, we offer the comments in this Section to strengthen Tentative Permit provisions allowing continued reclaimed discharges to		X	As mentioned before, the Regional Board presently has inadequate information with which to determine whether, and to what extent, the discharge that could be authorized by this permit continues to constitute an enhancement. The Board also presently	None necessary.

[2] Since the release of the Tentative Permit, on January 31, 2008, the U.S. Fish and Wildlife Service announced its final determination incorporating the Estuary into finally designated critical habitat for the tidewater goby. 73 Fed. Reg. 5920, 5936 (Jan. 31, 2008). The Estuary was previously incorporated into finally designated critical habitat for steelhead trout.
[3] EBE Policy, p. 1.
[4] Id.
[5] EBE Policy, p. 4.
[6] We attach information provided to us by Nossaman, Guthner Knox and Elliott regarding the definition of 'enhancement' for purposes of the Bays and Estuaries Policy as Attachment A to this letter.

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	the Estuary to support and enhance the survival of sensitive species, their critical habitat, and other beneficial uses. It is the City's understanding that the Regional Board plans to revise the Tentative Permit to clarify a finding of enhancement or confirm the Board's previous permit finding of enhancement. Revisions to clarify the Board's finding of enhancement will be extremely important to properly support Tentative Permit provisions allowing continued VWRF tertiary treated discharge into the Estuary until additional analysis confirms and/or more specifically defines the volume of the discharge necessary to protect and optimize the Estuary's endangered species populations, critical habitat, and other beneficial uses. The City supports the Regional Board's intent to include, pursuant to the Bays and Estuaries Policy, findings in the Tentative Permit regarding the degree to which the VWRF discharges 'enhance' the Estuary because they are discharges that (1) prevent water quality degradation,[3] (2) protect the beneficial uses of waters of an enclosed estuary,[4] and (3) would consistently be treated and discharged in such a manner that would enhance, the quality of receiving waters above that which would occur in the absence of the discharge.[5] We hope that the Regional Board will take into account State Water Quality Control Order 79-20 (May 16, 1979) in making EBE Policy findings for inclusion in the Tentative Permit.[6] In Order 79-20, the State Water Quality Control Board (SWRCB) found that the determination of "enhancement" under the Bays and Estuaries Policy requires consideration of: '. . . (1) full uninterrupted protection of all beneficial uses which could be made of the receiving water body in the absence of all point source waste discharge, along with (2) a demonstration by the applicant that the discharge, through the creation of new beneficial area or a fuller realization, enhances water quality for those beneficial uses which could be made of the receiving water in the absence of all point source waste discharges.' In short, 'enhancement' is interpreted in the memo to require that		 X	lacks the information necessary to determine what, if any, negative impacts would occur to the Estuary if the discharge was prohibited, and therefore lacks the current information necessary dispute the previous enhancement finding. The Board has conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge. Regional Board staff disagree. The determination of enhancement under the Bays and Estuaries should be based upon the results of individual site-specific studies. The City needs to conduct more studies such as a system-wide analysis, a Comprehensive Plan, and a Wetland Feasibility Study in order the Board to determine whether the discharge from the VWRF enhances the Estuary. In addition, Mr. Stan Glowacki with NFS, one of the trustee agencies, testified that: "… **NFS also believes that more studies of the Estuary are needed to understand the aquatic ecosystems, to understand water quality fluxes that occur in the estuary, and to understand the use of the estuary by steelhead and other fish and wildlife. But we believe that these studies should be done before any reduction or elimination of wastewater releases occurs.**" As the commenter is aware, the Regional Board received conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge. That is why the Regional Board directed staff to revise the permit to include requirements to conduct more thorough studies which include: 1) a system-wide analysis that examines the biological, recreational, physical, chemical and hydrological relationships implicated in the	 None necessary.

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	a discharge not only provides full protection of beneficial uses which the receiving water body is capable of supporting[,] but also yields a positive water quality benefit. (Id. at p. 9, quoting the October 21, 1974 memorandum from Executive Officer Bill Dendy to Dr. David Joseph.) The SWRCB went on to explain in that Order, in applying this definition of enhancement to consideration of the City of Arcata's proposal discharge of secondary treated wastewater to Arcata (North Humboldt) Bay, that enhancement requires: • full secondary treatment, disinfection and dechlorination;, • compliance with any additional NPDES permit requirements issued by the regional board to protect beneficial uses; and • the fuller realization of beneficial uses or the creation of new beneficial uses either by or in conjunction with a wastewater treatment project, which can be met by the creation of additional marshlands or wetlands, such as the treatment marshes proposed by Arcata. (Ibid.)			watershed; and, 2) a Comprehensive Plan that addresses the function of the sub-watershed and Estuary as a single unit, in order to ensure whether the discharge from the VWRF enhances the Estuary. The commenter is also aware that the Bays and Estuaries Policy does not define what enhancement is. That determination is left to the discretion of the Regional Board and will depend upon site-specific factors, including the quantity and quality of discharge from the VWRF.	
	We respectfully suggest that the Regional Board could and should, despite some disagreement among stakeholders, rely on the overwhelming weight of scientific evidence and expert opinion in the record to support inclusion, pursuant to the Bays and Estuaries Policy and Order 79-20, of findings in Section II of the Tentative Permit similar to the following: (1) Beneficial uses of the Estuary in the absence of all point source discharges either would not exist, and/or if they would exist, they are not degraded by the VWRF discharge. As noted by the Regional Board at the December 6, 2007, there is no evidence that the discharge is causing toxicity or other harm to the beneficial uses of the Estuary based on the last more than 45 years of discharge records. In addition, the Estuary Study and related biological surveys conducted under the supervision of the Regional Board, as well as expert opinion of two biologists, the Trustee Agencies, and the Audubon Society, all unequivocally support the conclusion that the discharge is responsible for the existing aquatic, wetland and riparian		X	The Regional Board presently has inadequate information with which to determine whether, and to what extent, the discharge that could be authorized by this permit continues to constitute an enhancement. The Board also presently lacks the information necessary to determine what, if any, negative impacts would occur to the Estuary if the discharge was prohibited, and therefore lacks the current information necessary dispute the previous enhancement finding. The Board has conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge.	None necessary.

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	habitats within the Estuary, which are used and occupied by endangered, threatened and sensitive species, as well as a variety of birds and wildlife. Further, this information concludes that absent the discharge, reductions would occur in surface area of riparian, wetland and aquatic habitat and fish refugia areas, and declines in aquatic species mobility would result reducing the estuary's capacity to support wildlife and adversely affecting beneficial uses, including particularly, but without limitation, species and habitat related beneficial uses such as EST, MAR, WILD, RARE, MGR, SPAWN, and WET, that the Estuary is capable, with continued reclaimed flows, of supporting. (2) Beneficial uses of the Estuary are created by, and more fully realized within the Estuary due to the VWRF discharges. The same information discussed in the first finding unequivocally supports the conclusion that the beneficial uses of the Estuary, and particularly the species and habitat related uses, are a direct result of and/or are more fully realized and expanded by the discharge-related creation of additional aquatic, wetland and riparian habitat, including critical habitat for both the tidewater goby and the steelhead trout. As alluded to by the Regional Board in the December 6, 2008 workshop, the Enhancement Study conducted under the supervision of the Board concluded that the discharges enhance the aquatic habitat in the Estuary, including designated critical habitat for the listed tidewater goby and steelhead trout, by among other things: providing additional rearing and foraging habitat for both species; providing refuge for both species from predators; enhancing migration flows for steelhead; providing acclimation areas for both juvenile and adult steelhead during the transition to and from salt and freshwater environments; providing breaching which helps to flush the Estuary of non-native predators, and also reduces harmful temperature increases and algae plumes, and provides habitat for water foul, and other native species such as red-legged frogs. (3) The discharge fully protects beneficial uses and yields a positive water quality benefit. As discussed in the first and second finding, available scientific information supports a				

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	conclusion that the discharge fully protects beneficial uses within the Estuary, which have been improved and enhanced during the last more than 45-year period of discharge. In addition, the Estuary Study, water quality modeling and technical reports, and water quality monitoring reports conducted under Regional Board supervision pursuant to the existing VWRF discharge permit unequivocally support the conclusion that the reclaimed discharge yields positive water quality benefits. Not only does the VWRF provide tertiary treatment, exceeding the technology based standards for full secondary treatment, disinfection and dechlorination as required by Order 79-20, the VWRF discharge has also substantially complied with all its additional existing NPDES permit requirements to protect beneficial uses. Further, the current design of the VWRF improves upon the design of the City of Arcata system, assuring better discharge water quality than that system. the VWRF provides tertiary, not secondary treatment, for all flows prior to release to constructed treatment wetlands (supporting wildlife and particularly bird habitat), which provide polishing of the release prior to discharge to the Estuary. Further, unlike the City of Arcata system, the VWRF system is not designed to allow any discharge directly to the Estuary of water that has not received tertiary treatment. In addition, the City has invested more than $29.5 million in treatment improvements to assure improvements in discharge water quality that far exceed the treatment level attainable in 1979 when Order 79-20 was issued, and that have improved each permit term on the treatment achieved by the Ventura Water Reclamation facilities. Finally, the Enhancement Study shows that existing surface water inputs that would replace the VWRF discharge if it were eliminated or reduced, when available at all, are much less desirable in terms of water quality than reclaimed flows, based on TDS and toxicity measurements. Similarly, the groundwater inputs that would replace the VWRF discharge if it were eliminated or reduced, are not desirable when compared to VWRF discharge water quality based on measurements of TDS, nutrients, and other constituents. In summary, as noted by the Regional Board in				

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	the December 6, 2008, the Enhancement Study shows that the discharge enhances both the *quantity and the quality* of the aquatic habitat within the Estuary because the chemical composition of the discharge has fewer nutrients and is less toxic than other available water inputs. As a result, in the absence of the discharge, water quality within the Estuary would suffer, and, conversely, water quality within the Estuary benefits from the discharge. The current record for the Tentative Permit, including the following information in the record, unequivocally supports the foregoing findings, which establish "enhancement' for purposes of the Bays and Estuaries Policy pursuant to Water Quality Order 79-20: • Studies demonstrating that the tertiary discharge creates foraging and rearing habitat for tidewater goby and steelhead trout, and showing that significant populations of tidewater goby utilize habitat, including side channel habitat, created by the tertiary discharge that would not otherwise be present to the same degree and quality. • Previously submitted opinions from experts of U.S. Fish and Wildlife Service and NMFS that confirm this conclusion and support the current enhancement aspects of the revised permit. • Studies demonstrating that the Estuary water quality would also degrade in the absence of the tertiary discharge when only groundwater and local agricultural runoff of a known lesser quality dominate the dry weather input to the estuarine system. The completed hydrology study suggests the water quality of the Estuary would compare to McGrath Lake, now supported by these same sources of flow and currently the focus of an abatement order by this Board. • *reports concluding that the Estuary functions better as habitat, has better water quality and likely operates closer to historic hydrologic conditions with the current discharge volume than without it.* • Final Critical Habitat Designations for the tidewater goby and steelhead trout issued by the U.S. Fish and Wildlife		X	The Regional Board presently has inadequate information with which to determine whether, and to what extent, the discharge that could be authorized by this permit continues to constitute an enhancement. The Board also presently lacks the information necessary to determine what, if any, negative impacts would occur to the Estuary if the discharge was prohibited, and therefore lacks the current information necessary dispute the previous enhancement finding. The Board has conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge.	None necessary.

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	Service. See, 73 Fed. Reg. 5920, 5936 (Jan. 31, 2008); and 70 Fed. Reg. 52,488 (Sept. 2, 2005)... This information, and other expert opinion in the record, appears to coincide precisely with the requirements for a demonstration of enhancement as defined by the Bays and Estuaries Policy and in State Water Resources Control Board Resolution 79-20. Based on this information, we request that Section II.A of the Tentative Permit should be revised and corrected to reflect the unequivocal conclusions of the Estuary Study and related scientific and technical studies, as well as the weight of expert opinion and scientific information regarding the Estuary in the record, and to incorporate findings similar to those discussed above in support of continued discharge to the Estuary. We further respectfully request that the information regarding lack of consensus among stakeholders be moved from Section II.A. to a section of the Tentative Permit that presents and reflect the results of the extensive public participation process conducted by the Regional Board for consideration of the Tentative Permit.		X	The Regional Board presently has inadequate information with which to determine whether, and to what extent, the discharge that could be authorized by this permit continues to constitute an enhancement. The Board also presently lacks the information necessary to determine what, if any, negative impacts would occur to the Estuary if the discharge was prohibited, and therefore lacks the current information necessary dispute the previous enhancement finding. The Board has conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge.	None necessary.
	In addition to incorporating appropriate findings into the Tentative Permit, we also request that the Regional Board amend Section II.P. of the Tentative Permit, which is, at a minimum, a materially incomplete statement of the requirements of the Endangered Species Act pertinent to this Tentative Permit. The City appreciates, as reflected in Section II.P. that the Tentative Permit no longer contains mandates that would violate the Endangered Species Act, and it similarly does not authorize any act that would result in a violation of the Act, or a taking of species or adverse modification of habitat. We also appreciate that the Tentative Permit provisions, which now permit continued discharge, should continue to protect and enhances beneficial uses of waters of the State. However, the last sentence of Section II.P. should either be deleted, or should be revised to reflect that both *the discharger and the*			Staff agrees that the sentence was unnecessarily vague, and an incomplete statement of the requirements of the federal and state Endangered Species Acts. Particularly, certain trustee agencies bear responsibilities whenever protected species may be implicated. Staff disagree that the Regional Board, which is only acting in its capacity as a regulatory agency charged with protecting water quality, shoulders any responsibility for compliance with the Acts. Rather, Ventura, the discharger, shoulders the responsibility for ensuring that the Acts' requirements are met. Nevertheless, the sentence has been modified to eliminate the suggestion that only Ventura has obligations under the Acts. The last sentence of Section II.P has been revised as "The discharger is responsible for ensuring that its activities do not result in an unlawful take of federally or state protected species."	Some change has been made.

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	Regional Board have a duty, in implementing, enforcing and interpreting the requirements and provisions of the permit, to comply with the Endangered Species Act. The City is particularly sensitive to the potential for being subjected to requirements, interpretations, enforcement orders or other implementation related measures that might put the City at risk of taking species, adversely modifying habitat, or otherwise violation any provision of the Endangered Species Act. Finally, we request that references remain in the Tentative Permit to the scientific and technical information upon which it is based, including, without limitation, the Enhancement Study, including all biological and water quality monitoring, modeling, and technical reports prepared and submitted to the Regional Board thereunder, and the Estuary Water Balance and Reclamation Market Study.	X		Estuary Water Balance and Reclamation Market Study have been added.	Change has been made.
3.	**The Tentative Permit Monitoring Program and WER Calculation** As the Regional Board is aware, the City has, throughout the current and prior permit terms, expended significant resources to comply with the various Board Time Schedule Orders and NPDES permit requirements to evaluate the affects of certain toxic constituents on the Estuary. These studies adhered to the requirements of the SWRCB's Policy for Implementation of Toxic Standards for Inland Surface Water, Enclosed Bays and Estuaries of California (EBE Toxics Policy), which implements and incorporates by reference the specific guidelines and procedures required by the California Toxic Rule promulgated by the United States Environmental Protection Agency. As part of the EBE Toxic Policy process, the City and Regional Board invited, among others, state agency stakeholders (*e.g.*, the U.S. Fish and Wildlife Service, the Department of Fish and Game, and the California Department of Parks and Recreation) to participate in developing water quality standards for toxic pollutants that were protective of aquatic life, human health and the environment. In 2005, the SWRCB amended the EBE Toxics Policy to allow Water Effects Ratios to be established in		X	Regional Board staff disagree that the geometric mean should be used for determining the WER. For the protection of aquatic life and the receiving water quality, the most stringent/lowest WER must be applied. Regional Board staff's approach to calculating the WER is the same approach used for pollutant limit calculations in other adopted NPDES permits, as well as the ammonia effluent limits in the proposed permit. Because there was an inadvertent mistake of determining the lowest WER for copper, which should be 1.58 instead of 1.77, we have revised the copper limitations accordingly. The new copper effluent limitations for monthly average and daily maximum are 4.2 µg/L and 8.8 ug/L, respectively.	The permit has been revised to add the correct limitations based upon the most strict WER calculation

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	individual NPDES permits, rather than in the Basin Planning process. *See* SWRCB Resolution 2005-0019. To comply with the Regional Board's Time Schedule Order (TSO) and NPDES permit requirements, the City retained Nautilus Environmental to conduct the *Comprehensive Analysis of Enhancement and Impacts Associated with Discharge of Treated Effluent from the Ventura Water Reclamation Facility to the Santa Clara River Estuary - Toxicology, Ecology and Hydrology* (May 2005)(the WER Report). The WER Report was prepared in accordance with all requirements and guidelines of the EBE Toxics Policy. The City recommends that the Regional Board use the findings from the WER Report to establish applicable concentration limits for toxic contaminants. The City's specific comments are as follows: • <u>*Water Effects Ratio (WER) Calculation*</u> The calculations presented in the permit are not supported by USEPA guidance under the California Toxics Rule (CTR) or the SWRCB's EBE Toxic Policy, which were both developed to be result in toxic constituent limits that are low enough to be fully protective of water quality with adequate safety margins. The City recommends that the Regional Board should revise the Tentative Permit to incorporate limits that are developed in compliance with these guidance documents. Should the Regional Board prefer to retain the current limits in the Tentative Permit that deviate from USEPA and SWRCB guidance, the City would appreciate documentation regarding the scientific considerations that justify taking an alternative approach. . Pg. 19. The City recommends that the Regional Board change the monthly average and daily maximum limits associated with copper to levels that are consistent with the WER calculations conducted pursuant to USEPA and CTR guidance, and that corresponds with values recommended in the WER Report, and other testimony and reports provided by the City. More specifically, WER Report calculated the WER for the Estuary using the geometric		X	See response above.	None necessary.

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	mean of values that reflected spatial and temporal variation in the estuary. This approach is appropriate and consistent with USEPA and EBE Toxics Policy methodology. It now appears that the Tentative Permit uses the lowest WER obtained in the WER Report to set the site-specific objectives and corresponding effluent limits, which does not comply with, and is inconsistent with USEPA and SWRCB guidance. The City has no information explaining the reasoning behind adoption of these limits, and it does not currently appear that the Tentative Permit limits are supported by science or guidance. The WER Report was comprehensive, and included an evaluation that determined that the recommended final adjustment (*i.e.*, geometric mean) was applicable and protective. Pg. 31. The statement made in the first paragraph on this page of the Tentative Permit should be corrected to be consistent with the WER Report, and scientific and technical evidence and testimony submitted to the Regional Board. The WER Report did not find that a factor of 1.77 should be applied to the copper CTR criteria; rather a factor of 3.7 should be applied. As indicated above, the WER Report was a comprehensive temporal and spatial investigation of an appropriate site-specific objective for copper, based on methodology incorporated in USEPA and SWRCB guidance documents. Those documents derive a final WER as the geometric mean of the values obtained, not the lowest value. As noted previously, the calculated adjustment factor was compared with the actual data, and found to be protective of human health, aquatic life and the environment. If the Regional Board has an appropriate scientific basis for deviating from USEPA and SWRCB guidance to lower the adjustment factor, the Board should present its rationale for a change in approach and justify the resulting change in the limits.		X	See response above.	None necessary.
	• Receiving Water Dissolved Oxygen (DO) Monitoring Pg. E-18. The City would like to understand the Board's		X	Table 4-1a of the Resident Species Study conducted by the City provides average DO data from nine sampling stations throughout	None necessary.

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	rationale for the dissolved oxygen (DO) monitoring "predawn" requirements and sampling procedures set forth on this page of the Tentative Permit. The Bays and Estuaries Policy does not provide a numerical DO requirement, but a statement that DO shall not be reduced beyond what would occur in the absence of the discharge. The DO predawn monitoring requirements as set forth in the Tentative Permit will not provide data needed to make the evaluation required by the Bays and Estuaries Policy, and should be deleted.			the Estuary. These data were collected during the daytime. The lowest average DO values are 3.81 and 0.28 mg/L at Sites B-1 and B-2, respectively. These locations are close to the VWRF discharge. 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. Theoretically, low DO levels in the Estuary may have deadly impacts to the resident species such as the tidewater goby and steelhead. Therefore, 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.	
	More specifically, the Tentative Permit mandates that DO must be sampled in the "pre-dawn" hours in the receiving environment. To our knowledge, this is a unique requirement, and the requirement is not compelled by science or other regulatory practice. Duel fluctuations in estuaries and other water bodies are widely known, and are a common occurrence. They are, and should be, factored into the interpretation of all DO monitoring results, so the requirement is unnecessary to achieve appropriate results, and will interfere with the comparison of prior data to data obtained under the new permit because there will be not context for the consideration of monitoring results. In addition, there are monitoring safety concerns associated with sampling in the predawn hours under a variety of weather and flow conditions.		X	Regional Board staff agree that the pre-dawn DO monitoring is a unique requirement due to the current high nutrient concentrations being discharged into the Estuary. Therefore, the pre-dawn DO monitoring is essential to record the DO trends in the Estuary. However, if there are safety concerns such as rising water due to flooding, the pre-dawn monitoring will be waived. In addition, the pre-dawn DO monitoring must be conducted for one year. If the pre-dawn DO monitoring results are not depressed during this first year, then the daytime DO monitoring shall replace the pre-dawn DO monitoring.	Changes made
	The City understands that the DO sampling requirement may have originated with a focus on a single DO data point near the mixing point of the effluent side channel that was lower than downstream DO monitoring values, but higher than upstream measurements made concurrently. Given the comparative monitoring values, the single DO data point does not reasonably characterize, and is extremely unlikely to be related to the discharge. Collectively, the		X	Table 4-1a of the Resident Species Study conducted by the City provides average DO data during the daytime 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. These locations are close to the VWRF discharge. 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.	None necessary

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	ongoing monitoring of general water quality conditions and the biological community in the Estuary provides a more meaningful measure of the Estuary health. The continued evidence of healthy benthic invertebrate and fish populations, the general lack of impacts on beneficial uses, as well as lack of Biochemical Oxygen Demand (BOD) violations associated with the effluent, make it difficult to find any need for this additional monitoring requirement.			Theoretically, low DO levels in the Santa Clara River Estuary may have deadly impacts to the resident species such as the tidewater goby and steelhead. Therefore, continuing measurements of DO in the receiving water, including measurements in the pre-dawn hours, are required to supplement other evidence regarding the health of the estuary.	
	• Sediment Toxicity and Chemistry Monitoring Pg. E-19. As discussed in our comments on studies required by the Tentative Permit, the City has implemented and continues to implement a number of fish and invertebrate monitoring studies. The City questions the addition in the Tentative Permit of a requirement for an annual benthic trends analysis, given that a benthic macroinvertebrate monitoring program is already in place. The existing invertebrate monitoring data set and program provide a more robust basis for determining trends.		X	Regional Board staff believe that requirements for ongoing routine monitoring of the benthic infaunal community need to be included within the Tentative Permit. The Sediment Quality Objectives under consideration for adoption by the State Water Resources Control Board rely upon a triad of indicators to evaluate sediment conditions, i.e. the health of the benthic infaunal community, sediment toxicity measurements and sediment chemistry measurements.	None necessary
	Similarly, as discussed in our comments on studies required by the Tentative Permit, with respect to sediment toxicity testing, the City recognizes the need to confirm the continued absence of toxicity and to understand the Estuary sediment chemistry over time. However, given the lack of evidence for any effluent associated sediment toxicity, the City believes that the current the benthic macroinvertebrate monitoring regime; developed with Regional Board staff input, expert consensus, and City resources, coupled with less frequent sediment analysis is more than sufficient to perform this function. This annual requirement set forth in the Tentative Permit imposes a significant cost without providing an important water quality function or significantly improving understanding of the Estuary's biological integrity. The City respectfully recommends revision of the Tentative Permit to require a single sediment analysis conducted with Regional Board staff input, roughly corresponding with permit renewal cycles, and continuation of the existing benthic macroinvertebrate sampling, fish survey,		X	Previous studies conducted by the City have shown that sediment conditions within the estuary vary considerably from year to year, presumably due to scouring and depositional events associated with varying rainfall and runoff conditions. Consequently, Regional Board staff believe that annual evaluations of sediment toxicity and sediment chemistry are appropriate for at least one complete permit cycle to characterize the health of the estuary.	None necessary

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	and taxonomy efforts				
4.	**<u>Changed Point of Compliance</u>** *Lastly we remain concerned about the desire to consolidate all effluent monitoring and measurement at the Effluent Transfer Station, prior to discharge to the wildlife water quality polishing ponds, as compared to with the existing monitoring location at the terminus of the wildlife ponds. We request reconsideration of this change, or provision of some scientific or policy justification for the change.* Similar to the situation in the City of Arcata, the existing VERVE wildlife pond system was constructed as a part of the treatment plant expansion of 1971-72 as polishing ponds for further treatment of tertiary treated effluent from the mechanical treatment process. Unlike the City of Arcata facility, VWRF effluent is tertiary treated prior to release into the polishing ponds, and effluent does not ever bypass tertiary treatment to enter either the polishing ponds or the Estuary in an untreated condition. With addition of dechlorination facilities in the late 1970's the functions of the wildlife polishing ponds were expanded to include both natural dissipation of chlorine residual, reducing the demand for dechlorination chemicals, and creation of a supply reservoir for the water reclamation system. The pond system has been, from its inception and from the date of original construction by the City, intended as a part of VWRF treatment system, and it continues to function successfully in meeting its water quality polishing, chlorine dissipation, and reclaimed reservoir purposes, while providing wetland habitat for use by wildlife, including, particularly, bird life. *The City is concerned that the Tentative Permit provisions change the point of compliance for water quality standards to a location that precedes polishing and chlorine dissipation functions provided by the pond system, but fails to provide any water quality or environmental benefit, or to improve system reliability. It Further, moving flow monitoring as mandated by*		X	Regional Board staff disagree. The Wildlife Ponds are not part of the discharger's treatment system. In addition, discharge to "Wildlife Ponds", where presumably wildlife, including fish and amphibians reside, is an inappropriate way to dechlorinate the effluent, as chlorine is toxic to most of these organisms. All limitations must be met at the compliance point, which is now specified at the Effluent Transfer Station, before the wastewater enters the Wildlife Ponds. This includes compliance with bacteria standards, as well as toxicity standards. If the discharger wishes to change the point of compliance, then a revised Report of Waste Discharge must be submitted, and the Discharger must obtain either Waste Discharge Requirements for what is now a waste discharge to groundwater, and/or fulfill the applicable requirements of Title 27 surface impoundments regulations.	None necessary.

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	the Tentative Permit to the new location prior to release of effluent to the ponds would preclude quantification of losses within the pond system through percolation, transpiration, and evaporation. (See Section B of Findings in the January 7, 2008 Tentative Permit). Therefore, this change will result in overstatement by monitoring results of actual flow quantities reaching the estuary for habitat support. At the same time, although the change in compliance point fails to improve water quality, water quantification, system reliability, or water loss and discharge quantification benefits, the change presents significant risks and disadvantages to the City, including without limitation, the following. • *The change in the compliance point will deny the City of critical treatment benefits that the pond system was designed and originally constructed to provide with respect to water quality polishing, including incremental reductions in nutrient concentrations, and residual dissipation of chlorine. As a result, it is more likely that monitoring will show exceedences of permit requirements, when in fact, discharge to Estuary receiving waters and effects on beneficial uses remain unchanged. Consequently, technical, but unjustified violations will create City liability for enforcement and related penalties.* • The change in compliance point will create the inappropriate implication that the wildlife pond system, which was constructed and has always functioned as an integral part of the wastewater reclamation facilities, constitutes unmanaged receiving water that must be subjected to more stringent water quality standards than are appropriate for a system that constitutes a part of the wastewater treatment process. For these reasons, among others, we request revision of the Tentative Permit to leave the compliance point unchanged from its current location.				

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
Letter from Ventura Audubon Society Dated on February 3, 2008					
1.	The Ventura Audubon Society considers the removal of the requirement to stop the discharge into the Santa Clara River estuary a positive first step in revising the Permit. The Santa Clara River estuary with its current water inputs constitutes an entire ecosystem. This ecosystem is made up of all levels of biological life including algae, plants, micro and macro invertebrates, fish, reptiles, amphibians, birds and mammals. All of the trophic levels of life here are dependent on adequate water to sustain them. We have noted a tendency of the staff reports to concentrate on species listed under the Endangered Species Act, but we feel that <u>all</u> species present in the estuary need to be preserved by maintaining adequate water levels.	X		Regional Board staff agree. The permit already specifies that the City is to conduct monitoring on biological, chemical, physical, and toxic aspects of the receiving water to protect not only receiving water quality, but also all aquatic life.	None necessary
2.	We would like to address two conditions of the proposed Permit specifically. The first condition is the requirement that the City do a system wide study to determine the biological, recreational, physical, chemical and hydrological relationships in the watershed. We believe that this condition goes far beyond the concerns represented by the discharge of the City. It would encompass water sources and diversions that are outside the ability of the City to control and have no direct impact on the relationship between the discharge and health or enhancement of the estuary. Such an effort would divert time and funds from determining the steps necessary to preserve the health of the estuary. This effort would be better limited to the specific area of concern, i.e. the river from the Victoria Avenue bridge to the ocean, the Ventura Wildlife Ponds and the adjacent beaches.		X	The requirements for the studies in the proposed permit are general, by design, and allow the stakeholder group the flexibility to focus on the areas of the Estuary and Watershed that are inter-related. For example, it would be inappropriate to require the City to study the Stickleback in the upper reaches of the Santa Clara River, but it would be absolutely appropriate for the City to consider the impacts of their discharge combined with any future releases from the current diversions.	None necessary.
	The second condition for the development of a Comprehensive Plan that addresses the function of the sub-watershed and Estuary as a single unit is certainly a worthwhile project. We feel that a thorough assessment of the bird life that is dependent on the estuary is needed. A twice monthly inventory of bird species and their numbers using the estuary and wildlife ponds throughout the year would be a good way to assess the	X		Regional Board staff agree. These parameters have been added.	Changes have been made.

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	diversity of all life enhanced by the current discharge. The relationship between the surface area of open waters present and the success of California Least Tern nesting is another possible topic for the study. You've mentioned the concern of chemical impacts on the Tidewater Goby. These chemicals may also impact the aquatic invertebrates that shorebirds depend on.				
3.	The recreational relationships assessment should include the hobby of bird watching. Every year thousands of people pursuing this hobby visit Ventura and the Santa Clara River estuary is a very popular destination. This brings eco-tourist dollars into the local economy. The estuary's close proximity to Ventura Harbor where tourists from all over the world depart to the Channel Islands National Park means that these bird watchers often include a trip to the estuary in their itinerary in addition to the bird rich areas just offshore.	X		Regional Board staff agree. The change has been made.	Changes have been made.
4.	Optimal water amounts for bird populations in the estuary probably include both a large open water surface area during California Least Tern nesting and exposed mudflats created when the estuary bar breaches during the fall in September. During the winter months the open water areas of the estuary and the wildlife ponds provide safe sleeping areas for ducks where they can't be reached by predators like the coyote.	X		Regional Board staff agree. This information has been added in Section II of the Order.	Changes have been made.
5.	Our understanding is that the current discharge is clean water with the exception of high nitrate levels. In a recent workshop conducted by your agency there was much discussion of the possibility of removing nitrates through the use of a filtration marsh/wetland. This option would provide needed nitrate removal and increase the areas that are useful to birds and other wildlife. If the filtration marsh is then discharged to the Santa Clara River the beneficial addition of water to the Santa Clara River estuary will be preserved. Design criteria should also include the ability to increase the habitat for Tidewater Gobies and for small forage fish important to the California Least Tern.	X		The requirement for a Wetlands Feasibility Study has been added to the newly-revised tentative Order, and also requires design criteria to be specified.	Changes have been made.
6.	One of the determinations that the board needs to make to allow the continued discharge into the Santa Clara River estuary is that the discharge enhances the receiving waters.		X	The Board presently lacks the information necessary to determine what, if any, negative impacts would occur to the Estuary if the discharge was prohibited, and therefore lacks the current	None necessary.

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	We believe that this is the case. In the semi-arid area that we live in water along stream courses nourishes and sustains life. This is especially true in coastal estuaries. The Santa Clara River estuary is one of the major central California estuaries that support a unique and valuable diversity of life. The board's allowing the continued addition of water to the estuary will certainly enhance the lives of the wildlife present and all who visit the estuary.			information necessary dispute the previous enhancement finding. The Board has conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge. Therefore, the requirement for the studies has been added to the permit.	

Part 2 – Eliminating Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	Letter from Heal the Bay Dated on February 7, 2008				
A.	Heal the Bay was in general support of the **previous** version of the Permit. Specifically, we strongly supported the decision to incrementally decrease the Ventura Water Reclamation Facility ("VWRF") discharge to the Santa Clara River Estuary ("SCRE") until there is zero discharge to the Estuary. However due to the significant changes in the Tentative Permit dated January 7, 2008, including the removal of this provision, we now oppose the Permit. We urge the Regional Board to return to the approach outlined in the previous draft that decreases the discharge until there is zero discharge in the Estuary. Our concerns are further outlined below.		X	Mr. Stan Glowacki, a fisheries biologist with the National Fisheries Service (NFS), testified during the December 6, 2007 Workshop: "**There is no provision within the act which says we can ratchet down the effluent and then see if there's an adverse effect. And then if there's an adverse effect, well, we'll put more water in the estuary. The law does not work that way. And we have to assess any potential impacts before we can issue any sort of an Incidental Take Statement within a biological opinion or within the Section 10 process, which comes with an Incidental Take Permit. So there's been a lot of talk about adaptive management and let's ratchet down the discharge and see what happens, but under the law, we can't do that, because that's not the way the Endangered Species Act works.**" Therefore, flow reduction and eventual elimination of flow have been removed from the tentative Order (dated January 7, 2008), and the discharge has been capped at the current discharge, which is 9 million gallons per day (MGD).	None necessary.

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
				Mr. Glowacki also testified that: "…, **because NFS also believes that more studies of the estuary are needed to understand the aquatic ecosystems, to understand water quality fluxes that occur in the estuary, and to understand the use of the estuary by steelhead and other fish and wildlife. But we believe that these studies should be done before any reduction or elimination of wastewater releases occurs.**" Also at the December 6, 2007 workshop, the Regional Board directed staff to investigate further on: 1. What is the optimum flow to maintain the estuary and the endangered species? Is the current 9 mgd annual average optimum; Will 15 mgd be detrimental? 2. How does the flow from the plant affect groundwater? Does it really "back-up" groundwater flow? 3. What is the optimum flow in the River needed to sustain endangered species? 4. What will happen if the flow is reduced? Will the Estuary shrink and there be less habitat available to the endangered species? The Regional Board also directed staff to: 5. Work with Stakeholders; 6. Look at a system-wide analysis; 7. Look at the feasibility of an upstream discharge, conservation measures, more percolation, or the construction of wetlands; 8. Look at the impacts to other species, such as Terns; 9. Come back with information that would give the Regional Board a better measure of what "Enhancement" is; and 10. Bifurcate the issues of the permit revision and a finding of enhancement. Estuary Water Balance, Recycled Water Market, and Wetlands Feasibility Studies can be incorporated into System-Wide Analysis and Comprehensive, in order for the Board to have information to	

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
				determine whether the discharge from the VWRF enhances the Estuary.	
B.	**The Regional Board should require that the discharge be removed from the Estuary** The VWRF has discharged to the Santa Clara River Estuary ("SCRE" or "Estuary") for approximately forty-five years. This discharge is in direct conflict with the State Water Quality Control Board's *Water Quality Control Policy for the Enclosed Bays and Estuaries of California* ("EBE Policy"), passed in 1974, which mandates that wastewater discharges to estuaries be phased out as soon as practicable. SWRCB Resolution No. 74-43. According to the EBE Policy, exceptions may be granted *only* in the rare circumstance where a regional board finds that the discharge enhances the estuary. In earlier versions of the Permit, Regional Board staff concluded that enhancement was not demonstrated. As a result, the previous draft permit required the incremental elimination of the discharge. However in the Tentative Permit, Regional Board staff backpedals on this decision and reaches no clear conclusion on a determination of enhancement that is required by the EBE Policy. No significant information has been provided to substantiate the change in the Permit or the current Regional Board staff position that not enough information was provided to determine enhancement. The Tentative Permit states: "The Board also presently lacks the information necessary to determine what if any negative impacts would occur to the Estuary if the discharge was prohibited, and therefore lacks the current information necessary [to] dispute the previous enhancement finding. The Board has conflicting, yet credible opinions from a variety of experts about harm to endangered species, habitat, and recreation, among other uses of the Estuary and areas impacted by the discharge, both with and without the discharge." Tentative Permit at 8.		X	Please see Response to Comment No. A.	None necessary.

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	Clearly, water quality is not being enhanced by the discharge. High nutrient levels, chronic metals exceedances and unknowns about emerging contaminant concentrations in the discharge all continue to be major water quality concerns. These issues have all been described in detail in our previous comment letters. Also on its own merit, the fact that a TSO for nutrients is included in the Permit package clearly demonstrates that the threshold of water quality enhancement is not being met. Based on these facts, the Regional Board has no choice but to conclude that the burden of enhancement has not been met and require the discharge be removed from the Estuary. We urge the Regional Board to return to the approach outlined in the previous draft that decreases the discharge until there is zero discharge in the Estuary. The extensive species monitoring program outlined in the previous draft permit will ensure that sensitive species impacts are not occurring due to this alternation in flow. The previous permit allowed modification in discharge reduction requirements based on monitoring results that demonstrate ecological harm.		X	The limits that are specified in the tentative permit are fully protective of the beneficial uses of the Estuary specified in the basin plan and the California Toxics Rule. Further, the Estuary is not 303(d) listed for eutrophication or for algae.	None necessary.
C.	**The Regional Board should specify critical elements of a watershed-wide study** During the stakeholder process several resource agencies have raised concerns about potential impacts to sensitive species from a decrease in flow to the Estuary. They hold that removing the wastewater discharge may lead to less habitat area and less frequent breaching that could impact the tidewater goby and steelhead trout. Further, they maintain that **any** decrease in the current average daily discharge of 9 mgd would be detrimental, despite that fact the only Regional Board determination of enhancement was based on a discharge volume of 5.6 mgd. However, stakeholders such as the Fish and Wildlife Service and NOAA Fisheries have not provided studies such as a baseline flow study or any other evidence that support this hypothesis. The Tentative Permit requires that the discharger complete a "watershed-wide" study that addresses many of the flow concerns and data gaps. We agree that such a study is needed. The Regional Board should		X	The requirements of the Work Plan are broad by design to facilitate and consider the input of the stakeholder group. Regional Board staff do not want to suppress stakeholder input by narrowly detailing the elements of the Study. Heal the Bay, as part of the stakeholder group, can suggest what elements should be part of the Studies.	None necessary.

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No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	specify the components that need to be explored in the study. Specifically, the study must 1) quantify sources of flow to the Estuary; 2) determine the optimal flow and volume in the Estuary; 3) determine the optimal spatial distribution for aquatic habitat in the Estuary; and 4) quantify upstream uses that reduce the natural flow to the Estuary. The study must be completed in 2 years. The watershed-wide study will be able to inform the Regional Board and the resource agencies about necessary flows to maintain species habitat and any upstream flow diversions and uses that are reducing these necessary flows.				
	The Regional Board should remove the discharge cap of 9 mgd and require a reduction in flow with the first milestone of 5.6 mgd to be met within the 5 year permit term The Tentative Permit sets a cap on allowable discharge to 9 mgd, until the watershed-wide study is completed. However, there is no reason to maintain the current flow in the Estuary while the study is being completed. As mentioned above, there has been no scientific information provided that supports maintaining this discharge volume of 9 mgd. In fact, the current permit states that "[t]he running 30-day average volume of treated wastewater discharged to the Santa Clara River shall not be less than 5.6 mgd." Of note, 5.6 mgd is based on the results of the 1976 Enhancement Study conducted by the Discharger. Further, the SCE Policy requires the discharge to be removed from the Estuary as enhancement was not demonstrated. Thus instead of setting a cap at 9 mgd, at a minimum the Regional Board should require that the discharge volume be reduced to 5.6 mgd within the 5 year permit term.		X	Regional Board staff disagree. Please see Response to Comment No. A. In addition, once studies have been completed, the information can be used by the Regional Board on their determination of whether or not the discharge enhances the Estuary. This Order will be reopened, accordingly. According to the trustee agencies, any decrease of the discharge beyond the existing volume may be detrimental to endangered species. Without additional scientific studies, the optimum volume of discharge to sustain endangered species is unknown at this time. Therefore, no ratcheting down of the discharge volume is proposed at this time.	None necessary.
	The Regional Board should consider including feasibility study and conceptual design requirements for a treatment wetland system in the Permit Several creative solutions have been proposed during the stakeholder process that may alleviate many stakeholder concerns. At the stakeholder meeting on January 29, 2008, a	X		Regional Board staff agree. The Wetlands Feasibility Study has been added into Section II.A of the revised tentative Order as following: "At the stakeholder meeting held on January 29, 2008, the revised tentative Order (January 7, 2008), Watershed-wide Study, and Work Plan was discussed. At this meeting, the Discharger expressed interest in exploring construction of	Changes have been made.

Part 2 – Eliminating Discharge					
No.	Comment	Agree	Disagree	Response to Comment	Action Taken
	significant amount of discussion took place regarding the installation of a treatment wetlands system similar to that used to treat the City of Arcata's discharge. A properly designed and sited treatment wetlands system could alleviate concerns about nitrogen loading and attenuation in the Estuary and could "polish" the effluent without reducing flows to the Estuary. Of note, wetland treatment has been shown to help in the partial removal of some pharmaceuticals, surfactants, and fire-retardants (ibuprofen, gemfibrozil, alkylphenol ethoxylates, *tris*(3-Chloropropyl) phosphate, and *tris*(2,3-Dichloropropyl) phosphate).[7] In addition, constructed treatment wetlands have also been shown to remove up to 100 percent of some pesticides.[8] Also there would likely be many side-benefits from the system such as reducing flooding problems and creating habitat for sensitive species such as birds. Of note, the City owns a large parcel of land (approximately 60 acres) adjacent to the VWRF. The Regional Board should consider adding language in the Permit that requires the completion of a feasibility study within the next year and conceptual design and sizing of the wetland system within three years. Pending the results of the watershed study, permitting and environmental review should be completed and construction should be initiated by the end of the life of the permit.			wetlands near the Facility to improve the receiving water quality. This order contains a requirement for the Discharger to submit a Wetlands Feasibility Study (See Section VI.C.2.a.iii of Order). Once the Feasibility Study has been reviewed by Regional Board staff, the permit will be reopened (see Reopener provision in section VI.C.1.l. of the Order) and a time frame will be established by the Regional Board for further action. It is anticipated that, if feasible, the City will pursue the activity, and will begin the planning and CEQA process in order to begin the project construction activities prior to the permit expiration date." Section VI.C.1.I: This Order will be reopened upon completion of the Wetlands Feasibility Study specified in Section VI.C.2.a.iii. of this Order. Section VI.C.2.a.iii: Wetlands Feasibility Study that includes preliminary design specifications and proposed site location is due to the Regional Board two years from the adoption of this Order. Additional time can be granted by the Executive Officer for just cause. Design specifications should also include the ability to increase the habitat for Tidewater Gobies and for small forage fish important to the California Least Tern.	
	The Regional Board should require additional effluent monitoring, if the discharge exceeds 14 mgd The Tentative Permit states that "[t]he maximum daily flow…shall not exceed the design capacity of 14 MGD. This prohibition is not applicable during wet weather storm events." Tentative Permit at 17. Although this prohibition does not apply during major storm events, the discharger must still meet		X	Peak volume most likely will be attributed to storm flows and infiltration. Therefore, quality of the discharge is not expected to be representative. In fact, the discharge quality will probably improve.	None necessary.

[7] Gross et al. 2004. Occurrence and fate of pharmaceuticals and alkylphenol ethoxylate metabolites in an effluent-dominated river and wetland. *Environ Toxicol and Chem* 23(9): 2074-2083.

[8] Schultz R, Peall SKC. 2001. Effectiveness of a constructed wetland for retention of nonpoint-source pesticide pollution in the Lourens River catchment, South Africa. *Environ Sci Technol* 33:973-980.

Part 2 – Eliminating Discharge					
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	effluent limitations during these periods. Thus, the Regional Board should require additional effluent monitoring of all parameters listed in the Monitoring and Reporting program on each day that discharge exceeds the 14 MGD capacity.				
C.	**The Regional Board should reevaluate the proposed WER to determine if the study appropriately accounts for variability in rainfall and water quality conditions. This information should also be available for public review** The Tentative Permit includes modified copper effluent limitations. Staff bases these modifications on a water effects ratio ("WER") study conducted by the discharger and summarized in the *Updated Enhancement Study of the Santa Clara River Estuary*. The results of the copper testing are only very briefly summarized in this study. It is unclear how Regional Board staff sufficiently evaluated the proposed WER based on the very limited amount of information provided in this study. Is there another report that the Regional Board evaluated?		X	The proposed WER was based upon USEPA's methodologies, which are 1) *Interim Guidance on Determination of Use of Water-Effect ratios for Metals. U.S. EPA Office of Water, Office of Science and Technology, EPA-823-B-94-001, February 1994* and 2) *Streamlined Water-Effect Ratio Procedure for Discharges of Copper, USEPA 2001*. The data were collected four times and were sampled at four different locations in the Estuary during one-year period.	None necessary.
	There are several critical elements of WER development that are not sufficiently described in the study. For instance, the report does not answer any questions about sampling conditions. For example, were wet and dry weather samples collected? Was 2004/2005 an appropriate year to take samples? The study design must account for variability in water quality and rainfall conditions. Ideally, four sampling events (2 wet and 2 dry) per year over five years are needed to develop a WER that accurately reflects site specific conditions. Further, it is unclear why a WER of 1.77 was chosen, when there is a calculated WER of 1.58 on September 28, 2004. Why was 1.58 not selected? In order to be protective, the lowest calculated WER should be used. Also, was only one species (*Mytilus* sp.) chosen for testing? Using only one species does not appropriately account for varying sensitivities among species that inhabit the Lagoon. The Regional Board should reevaluate the proposed WER with these questions in mind, as the chosen value must be adequately protective and		X	EPA Guidance outlining a streamlined procedure for a copper WER suggests that sampling of a minimum of two events, spaced at least one month apart, is adequate for this process.	None necessary
		X		Regional Board staff reviewed the data and agree that the lowest WER for copper, should be 1.58 instead of 1.77. The new copper effluent limitations for monthly average and daily maximum are 4.2 µg/L and 8.8 ug/L, respectively.	Change has been made.
			X	EPA guidance does not indicate that it is necessary to conduct tests with more than one species. Other species could have been used, but *Mytilus* is an acceptable test organism for toxicity testing.	None necessary

Part 2 – Eliminating Discharge					
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	the Regional Boards action sets precedent.				
D.	**The Regional Board should revise the Sediment Monitoring Program to include monitoring sites that would likely be the most impacted by the discharge and a reference site** The Monitoring and Reporting Program calls for a local benthic trends survey at three monitoring stations. We strongly support benthic community monitoring. However, it is unclear if the selected monitoring locations are in areas of the Estuary that would likely have the greatest impact from the discharge. Also, site 003 is not included on the map. How were these sites selected? Also, ideally there would be a fourth site far away from the discharge that serves as a reference location for comparison purposes. Has a reference site been selected? The Regional Board should clarify these elements in the Monitoring Program.	X		Regional Board staff agree that the permit should specifiy that a **minimum** of three sites for sediment monitoring should be chosen, and that there should be a requirement to explore the need for additional sediment locations and the most appropriate locations. These requirements have been added to the proposed permit.	Changes have been made.
E.	**The Regional Board should require sediment testing to at least a one-foot depth** The sediment/chemical monitoring section calls for a grab sample to be taken from the top two centimeters of sediment. While it is true that the surficial sediments are the primary exposure pathway, limiting the scope to sediments in the top 2 cm is completely inappropriate. Examining just the very top layer of sediment does not give sufficient insight on the ecological health of the waterbody. Many benthic species are known to inhabit much deeper sediments. Also sediments can be dynamic and can move and be buried due to a single storm event. Thus, the Regional Board should require core samples of at least a foot.		X	Regional Board staff do not agree that one foot sampling depths are appropriate. The Sediment Quality Objectives under consideration for adoption by the State Water Resources control Board recently have been revised to define surficial sediments as the top 5 centimeters, rather than the top 2 cm as previously defined. Much of the benthic community exists within this top 5 centimeters of the sediment layer, so this does allow for exposure of the community to contaminants present in the surficial sediments Although coring could be done to evaluate sediment contamination in deeper layers of the sediment, staff designed the monitoring program with the primary objective of assessing the most biologically available contaminants present in the surface sediments. We are revising the permit to require sampling in the upper 5 cm.	Changes have been made.