CITY OF
VENTURA

February 7, 2008

Tracey Egoscue, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Re: California Regional Water Quality Control Board Los Angeles Region (Regional Board) City of San Buenaventura Comments for Revised Tentative Waste Discharge Requirements and NPDES Permit CA0053651, CI No 1822 and Time Schedule Order (January 7, 2008) (Tentative Permit)

Dear Ms. Egoscue:

Thank you for the opportunity to comment on the referenced Tentative Permit for the Ventura Water Reclamation Facility (VWRF). The City is committed to operating a water reclamation system that meets our mutual goals of water resource protection, and environmental stewardship, enhancement and restoration of the City's natural resources, including the Santa Clara River Estuary (Estuary). At the same time, the City is aware of both the potential for increases in future influent, and of environmental, economic and water supply and conservation values and benefits associated with increasing reclamation and recycling capacity to address new future inflows. Consistent with those goals, the City will continue 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. The City will also study and explore in greater detail options for increasing reclamation and recycling to address future increases in influent. We look forward to working with you to explore integrated regional water resource solutions to protect the Estuary and our environment, while preparing for the future. As you requested, the following comments are limited to information made available since the prior draft permit, and the most recent changes reflected in the Tentative Permit.

Studies Required by the Tentative Permit

The 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 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

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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.

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);
- 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);
- 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;

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. 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 and take into account:

- 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 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.

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.

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.

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 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.

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 inapposite studies of McGrath State Park inundation.

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, 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.

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

[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

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 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 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.

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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.

(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.)

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 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.
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> (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 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 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 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.

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 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,

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 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:

- Water Effects Ratio (WER) Calculation
  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 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.

- Receiving Water Dissolved Oxygen (DO) Monitoring

  Pg. E-18. The City would like to understand the Board's 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.

  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. Diel 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.

  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 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.

- 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.

  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, and taxonomy efforts.

Changed Point of Compliance

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 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.

Conclusion

Thank you for the time and effort the Regional Board has expended on the stakeholder and public participation processes for the Tentative Permit. The City also appreciates the opportunity to provide these comments. The City desires to operate our utility system in a manner consistent with the City's long history of environmental stewardship, in a manner that respects environmental values and protects our resources. At the same time, we understand the importance of continuing studies to assure continuing protection and optimal realization of beneficial uses within the Estuary, which is currently a remarkably healthy system and a valuable natural resource. We are further committed to studies that will allow us to plan our operations to best conserve and enhance water reclamation and recycling for purposes of a healthy water supply. We understand that new questions will continue to arise, and are committed to working with the Regional Board and stakeholders to address the future of our water resources.

Again, thank you for this opportunity to comment. If we can provide additional information on any of these points, please contact us at (805) 677-4133.

Sincerely,

Vicki Musgrove
Environmental Services and Utilities Manager

cc: Ron Calkins, Director of Public Works
Dan Pfeifer, Wastewater Superintendent

NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP

MEMORANDUM

TO: Dan Pfeifer

FROM: Robert C. Horton

DATE: February 6, 2008

RE: City of Arcata Wastewater Treatment Facility ("WWTF") as Precedent for Finding Enhancement Pursuant to the Water Quality Control Policy for the Enclosed Bays and Estuaries of California
300021-0001

Question Presented:

Does the City of Arcata's Wastewater Treatment Facility ("WWTF") provide an analogous example of a facility that discharges treated wastewater directly to an enclosed bay or estuary that qualifies for the exception to the Water Quality Control Policy for the Enclosed Bays and Estuaries of California's ("EBE Policy") general prohibition?

Short Answer:

Yes. The WWTF uses constructed wetlands to treat wastewater to secondary treatment standards before discharging to the northern portion of Humboldt Bay, which is considered an enclosed bay subject to the EBE Policy.

We have not yet located a copy of the original NPDES permit for the City of Arcata's current WWTF facility in which the North Coast Regional Water Quality Control Board likely made the required express finding of enhancement for purposes of the exception pursuant to the EBE Policy. However, the State Water Resources Control Board ("SWRCB") held a hearing in 1979 to consider, among other things, whether the City of Arcata's then-proposed construction of a series of marshes to treat its municipal wastewater to secondary standards could qualify for the exception in the EBE Policy. It held that the City of Arcata had shown a reasonable probability that such a facility would qualify for the exception, and an examination of the SWRCB's water quality order WQ 79-20 provides binding authority that supports the City of Ventura's position in its current NPDES permit renewal for the Ventura Wastewater Reclamation Facility ("VWRF").

Executive Summary:

The City of Arcata's WWTF uses constructed wetlands as part of its secondary treatment process before discharging secondary treated municipal wastewater into Humboldt Bay. The marshes were designed and built in direct response to the adoption of the Water Quality Control

Policy for the Enclosed Bays and Estuaries of California ("EBE Policy") (originally adopted by Resolution No. 74-43).

As detailed below, the SWRCB set forth a definition of "enhancement" for purposes of the EBE Policy and found that the WWTF would likely enhance the receiving waters of Humboldt Bay because it would be able to reliably treat effluent to secondary standards, meet other NPDES permit conditions, and its constructed marshes would "enhance" the receiving waters by creating additional wildfowl habitat in Humboldt Bay, thus resulting in "the fuller realization of existing beneficial uses" of the receiving waters.

Specifically, the SWRCB held that:

> With respect to the [EBE Policy] enhancement definition's requirement that a bay discharge result in a positive water quality benefit, the Board notes that testimony was presented by the City of Arcata indicating that their proposed marsh treatment process could potentially result in the fuller realization of existing beneficial uses in the Bay by the creation of additional marshlands and, thus, more wildlife habitat.

(SWRCB Water Quality Order No. 79-20 (May 16, 1979) at p. 10 [see attached].)

WQ 79-20 therefore provides controlling authority for the City of Ventura's position that its discharge of 9.0 mgd provides "enhancement" of the SCRE so long as it reliably discharges tertiary treated water, meets its permit conditions, and results in "the fuller realization of existing beneficial uses" in the SCRE by the creation of more useable habitat.

Humboldt Bay and the City of Arcata WWTF:

Humboldt Bay is often referred to as three "bays" for discussion purposes: Arcata Bay (sometimes also called "North Bay"), Entrance Bay, and South Bay. (Humboldt Bay Harbor, Recreation & Conservation District, *Humboldt Bay Management Plan* (May 2007) ("HBMP") at p. 108.) The WWTF and its constructed wetlands are located at the northern end of Arcata Bay. (*Id.* at p. 118.) The discharge from the WWTF was found to be consistent with the Basin Plan and the EBE Policy "because the discharges result in additional elements of several beneficial uses that would not be present without the City's effluent." (*Ibid.*)

According to the WWTF NPDES Permit (Order No. R1-204-0036, NPDES Permit No. CA0022713) (attached, hereafter "Permit"), the WWTF is designed for a dry weather flow of 2.3 mgd and a maximum hydraulic capacity through the primary system of 5.0 mgd. (Permit at p. 2.) Flows in excess of 5.0 mgd bypass the primary system and go directly to oxidation ponds for treatment. (*Ibid.*) The WWTF discharges treated domestic waste from secondary treatment processes into Humboldt Bay at Outfall No. 001. (*Id.* at p. 1.) Secondary treated wastewater is also discharged to the Arcata Marsh Wildlife Sanctuary ("AMWS") at Outfall No. 002. (*Ibid.*) The AMWS is approximately 30 acres in size, and it provides polishing for a portion of the wastewater, which is pumped back to the chlorine contact basin before being discharged to Humboldt Bay (Arcata Bay). (*Id.* at p. 2.)

Because the WWTF discharges to Humboldt Bay, and the WWTF has not demonstrated any significant mixing with bay waters, the WQBELs are based on the assumption that no dilution occurs. (*Id.* at p. 4.) The RPA revealed that copper, zinc, cyanide, and 2,3,7,8-TCDD in the discharge from Outfall No. 001 have a reasonable potential to cause or contribute to exceedances of the water quality objectives for these toxic pollutants. (*Id.* at pp. 3-4.)

Beneficial uses of the waters in Humboldt Bay, which includes Arcata Bay, include, but are not limited to: FRSH, REC1, COLD, WILD, RARE, MIGR, SPWN and EST. (North Coast Regional Water Quality Control Board, *Water Quality Control Plan for the North Coast Region*, January 2007 ("Basin Plan"), Table 2-1 at p.2.8.00.) Significantly, Arcata Bay has among its beneficial uses aquaculture or mariculture of oysters. (*Ibid.*)

The Action Plan for Humboldt Bay Area contained in the Basin Plan notes that "[t]he original (1975) action plan for the Humboldt Bay Area . . . envisioned full implementation of the State Water Board's 1974 'Water Quality Control Policy for Enclosed Bays and Estuaries' (SWRCB Resolution 74-43) and called for elimination of discharge of municipal wastewaters and industrial process waters . . . to Humboldt Bay." (*Id.* at p. 4-4.00.) It notes, however, that the 1975 Action Plan "allowed the Regional Water Board to permit continued discharges based on findings that the wastewater in question would be consistently treated and discharged in a manner that would enhance the quality of receiving waters or beneficial uses above that which would occur in the absence of the discharge." (*Ibid.*)

In 1979, the SWRCB a hearing on its own motion to address concerns about municipal wastewater discharges to Humboldt Bay. (Water Quality Order No. 79-20 (May 17,1979) ("WQ 79-20" attached).) As discussed in detail in the following section below, one of the key issues before the SWRCB concerned whether or not to permit the City of Arcata to proceed with its proposal to construct a series of wetlands or marshes to treat its wastewater to secondary standards before discharging it to Arcata Bay (*i.e.*, the northern portion of Humboldt Bay). The SWRCB considered what the City of Arcata would have to show in order to qualify for the exception pursuant to the EBE Policy and receive an NPDES permit to discharge to Arcata Bay. While it did not find that the proposed facility would, in fact, enhance the receiving waters and qualify for the exception, the SWRCB held that the City of Arcata had shown that the facility had a reasonable chance of qualifying for the exception.

Subsequently, the WWTF did qualify, and has been permitted to discharge secondary treated wastewater directly into Arcata Bay. We have not been able to locate the North Coast Regional Board's determination that the Arcata WWTF did, in fact, demonstrate enhancement.[1] Indirect sources report that from 1979 to 1982 the City experimented with partially treated wastewater and the natural processes of wetlands to demonstrate that constructed freshwater wetlands could be used to treat wastewater and enhance biological productivity of the wetland environment into which treated wastewater was discharged. (USEPA Office of Water, *Arcata*

[1] A research librarian is following up with the North Coast Regional Board and other potential sources to locate any permits or staff reports for the Arcata WWTF from the 1980s, and a Public Records Act request has been initiated with the North Coast Regional Board.

California - A Natural System for Wastewater Reclamation and Resource Enhancement (1993) [attached] at p. 4.) The WWTF's constructed wetlands were authorized in 1983, and completed in 1986. (*Ibid.*)

The Arcata Marsh and Wildlife Sanctuary includes three freshwater wetlands constructed to receive treated wastewater from the oxidation ponds to reduce the levels of suspended solids and BOD concentrations, "thereby treating the wastewater further and enhancing the receiving water at the same time." (*Id.* at pp. 4, 6.) Notably, the "enhancement" refers to provision of "an extraordinary habitat for shorebirds, waterfowl, raptors and migratory birds." (*Id.* at p. 4.)

WQ 79-20 and "Enhancement" under the EBE Policy:

In 1979, the SWRCB held a hearing on its own motion to address concerns about municipal wastewater discharges to Humboldt Bay. (WQ 79-20 at p. 1.) Among other things, the SWRCB wished to determine if the EBE Policy should apply to Humboldt Bay at all. (*Id.* at p. 6 [holding that the EBE Policy should and does apply to Humboldt Bay].) The SWRCB's discussion of the EBE Policy provides valuable insight into the "legislative history" of the EBE Policy.

The SWRCB stressed that the prohibition against discharge into enclosed bays and estuaries unless enhancement of receiving water quality can be demonstrated was based on their limited capacity to dilute the discharged pollutants:

> with the exception of the San Francisco Bay-Delta System, bays are small isolated features. They have a very high resource value, providing critical habitat for a wide variety of fish and wildlife. In comparison to open coastal waters, bay waters have limited assimilative capacity due to their generally shallow depths and restricted access to the freely moving, widely dispersed coastal waters.
>
> That portion of the San Francisco Bay-Delta System north of the Dumbarton Bridge was exempted from the general discharge prohibition because of its high tidal exchange, closely resembling the dilution ability of open coastal waters, and the depths of its waters, in excess of 300 feet in some places.

(*Id.* at p. 7.)

Although this would not support an exemption from the EBE Policy for the SCRE, it considerably weakens Heal the Bay's argument that more frequent breaching of the sandbar at the mouth of the SCRE is evidence against a finding of enhancement. More frequent breaching exposes the SCRE to the ocean waters, which have a higher capacity to dilute contaminants, and therefore it could be argued to address one of the concerns that the EBE Policy was designed to address.

The SWRCB went on to state that it was

> of the opinion that sufficient evidence was presented at the hearing for the Board to find that there is a reasonable probability that the discharge of secondary, disinfected and dechlorinated effluent into Humboldt Bay, together with a treatment process which either creates new beneficial uses or results in a fuller realization of existing beneficial uses, such as the marsh treatment process proposed by Arcata, could enhance the receiving water quality.

(*Id.* at p. 8.) Although the SWRCB was not making a finding of enhancement, this appears to be consistent with a preponderance of the evidence standard, not something akin to clear and convincing evidence or the "heavy burden of proof" recommended by Heal the Bay.

The SWRCB used the definition of "enhancement" found in the October 21, 1974 memorandum from Bill B. Dendy [the Executive Officer of the SWRCB who signed the EBE Policy] to Dr. David Joseph [former executive officer of the North Coast Regional Board] ("October 21, 1974 memorandum"):

> '. . . (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 a discharge not only provide full protection of beneficial uses which the receiving water body is capable of supporting[,] but also yield a positive water quality benefit."

(*Id.* at p. 9 [emphasis original] [quoting the October 21, 1974 memorandum].)

The SWRCB then applied this definition of enhancement to Humboldt Bay to require (1) full secondary treatment, disinfection and dechlorination, (2) compliance with any additional NPDES permit requirements issued by the regional board to protect beneficial uses, and "(3) the fuller realization of beneficial uses or the creation of new beneficial uses either by or in conjunction with a wastewater treatment project. The latter requirement could conceivably be met by the creation of additional marshlands or wetlands, such as proposed by Arcata." (*Ibid.*)

Importantly, the SWRCB noted that although the evidence was conflicting, "several scientists from Humboldt State University testified . . . that the diversity of species and the numbers of organisms in the Bay are representative of a healthy, thriving bay ecosystem, despite the fact that several treatment facilities are presently discharging wastewater to the Bay." (*Ibid.*) It also noted that bacterial counts in the absence of upset were virtually undetectable in the dry season, and "[e]vidence was introduced to indicate that the primary source of bacterial contamination in the Bay is non-point source runoff in the wet season from both nearby agricultural lands and areas with failing septic tanks." (*Id.* at p. 10.)

The SWRCB found that there was sufficient evidence to support the conclusion that "there is a reasonable probability that the discharge of secondary, disinfected, and dechlorinated effluent would adequately protect the bacterial quality of bay waters and . . . would adequately protect the shellfish beds." (*Ibid.*)

The SWRCB further concluded that:

> With respect to the [EBE Policy] enhancement definition's requirement that a bay discharge result in a positive water quality benefit, the Board notes that testimony was presented by the City of Arcata indicating that their proposed marsh treatment process could potentially result in ***the fuller realization of existing beneficial uses in the Bay by the creation of additional marshlands and, thus, more wildlife habitat***.

(*Ibid.* [emphasis added].) This did not show ***actual*** enhancement, but rather, it showed that "the [proposed] Arcata marsh treatment process may enhance the water quality of Humboldt Bay." (*Ibid.*)

In order to demonstrate enhancement, the SWRCB stated that the Arcata marsh treatment project would have to be completed, "and the study results, including monitoring data, from the project demonstrate that the marsh treatment process is viable and can meet Federal secondary treatment requirements and the Regional Board's NPDES permit requirements." (*Id.* at pp. 10-11.) In other words, the Arcata marsh treatment system would have to demonstrate that it meets conditions (1) and (2) of the three requirements for enhancement. Notably, the SWRCB appears to have been convinced that the marsh treatment system would, in fact, result in "the fuller realization of existing beneficial uses," by creating additional marshland, thus satisfying the third requirement of the definition of "enhancement of receiving waters."

Analysis:

SWRCB has interpreted the EBE Policy's requirement that discharges to estuaries must be shown to "enhance the quality of receiving waters above that which would occur in the absence of the discharge" broadly to require three showings: (1) the ability to reliably treat wastewater to ***secondary*** standards, (2) the ability to reliably meet NPDES permit conditions imposed to protect existing beneficial uses, and (3) creation of new beneficial uses, or the "fuller realization of existing beneficial uses" in the receiving waters by creating more useable wildlife habitat. (WQ 79-20 at pp. 9-10.)

SWRCB appears to have concluded that if the treatment system creates freshwater wetlands or other additional habitat that can be used by waterfowl, then it has demonstrated that condition (3) is met. (*Ibid.*) Furthermore, the data required to demonstrate "enhancement" need not show that ***the chemical composition*** of the receiving water will be superior in the presence of the treated effluent than it would otherwise be, but that (1) it reliably will be treated to secondary standards and (2) the discharge reliably meets NPDES permit conditions imposed to protect existing beneficial uses. (*Ibid.*)

This is a substantially lower showing than the Los Angeles Regional Board appears to have been imposing on the VWRF. VWRF discharges ***tertiary*** treated water to the wildlife ponds, and it is being held to the most stringent standards available to the Regional Board for some of its constituents and meeting them. Thus, it has met the first two requirements for showing enhancement, namely (1) an ability to discharge water treated to a level well beyond secondary treatment, and (2) a demonstrated record of consistently meeting the NPDES requirements imposed to protect the beneficial uses in the SCRE.

As for the third and final requirement to show enhancement, VWRF's wildlife ponds, the side channel, and the expanded wetted surface area of the SCRE from the current discharge of 8-9 mgd expand habitat for waterfowl and aquatic species, including tidewater goby and southern California steelhead. Therefore, there is already ample competent evidence in the record to support the required finding of "fuller realization of existing beneficial uses" such as RARE and WILD, and no further watershed study is required to demonstrate enhancement.[2]

Although the current NPDES permit for the WWTF does not explicitly address the EBE Policy exception, it mandates that WWTF discharge into the "Marsh and Wildlife Sanctuary" (*i.e.*, the secondary treatment ponds), which suggests that maintaining the Marsh and Wildlife Sanctuary is a condition needed to satisfy the "enhancement finding."[3]

The SWRCB's requirements are far lower than Heal the Bay's proposed requirement that the VWRF show that the chemical water quality of the SCRE is better with the discharge than it would be if there were no contamination from runoff and historic inflows from upstream were to resume at "natural" levels.

The administrative record to date is replete with empirical evidence in the form of multiple studies performed under the direction of the Los Angeles Regional Board and expert scientific testimony from peer reviewed scientists who have studied the SCRE that the VWRF is capable of reliably (1) discharging tertiary treated wastewater, (2) meeting its NPDES permit conditions, and (3) more fully realizing existing beneficial uses by virtue of the creation of the side channel, the wildlife (polishing) ponds, and additional wetted surface area in the SCRE that result from discharge of 9.0 mgd of tertiary treated wastewater to the wildlife ponds, and ultimately to the SCRE. The discharge either creates or "more fully realizes," among others, the

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[2] While Humboldt Bay is home to tidewater goby, steelhead trout and Coho salmon, the presence of these species and the RARE beneficial use designation do not appear to have played an important role in the SWRCB's consideration of enhancement. Instead, the mere fact that expanding the marshland adjacent to Arcata Bay would provide more habitat for wildfowl appears to have satisfied the SWRCB as to the ability of the proposed Arcata WWTF to support fuller realization of existing beneficial uses. (WQ 79-20 at pp. 9-10.) The current NPDES Permit for the Arcata WWTF notes the RARE beneficial use, but it does not mention the EBE Policy, let alone analyze whether continuing to permit the discharge of secondary treated wastewater into Humboldt Bay enhances the quality of the receiving waters.

[3] An argument could be made that the requirement to discharge to the Marsh and Wildlife Sanctuary is included in the current purpose for water quality. However, WWTF's NPDES permit contains a specific water quality requirement section in the permit, which suggests the requirement to discharge to the Marsh and Wildlife Sanctuary is not included simply for water quality purposes.

beneficial uses of RARE and WILD, among others, with respect to tidewater goby, waterfowl, and southern California steelhead. It does so by creating the side channel habitat, an expanded footprint of the SCRE, and by sustaining the wildlife ponds.

At present, it appears the Los Angeles Regional Board proposes to require a study to confirm that the current level of discharge of approximately 8-9 mgd is optimal, and to determine which alternative or combination of alternatives would be appropriate to cope with any future increase in wastewater processing at the VWRF. While this requirement does not conflict with the EBE Policy, neither the plain language of the EBE Policy, nor the SWRCB's interpretation of "enhancement" requires a showing that the proposed discharge ***maximizes*** the realization of existing beneficial uses. The EBE Policy only expressly requires a finding of enhancement, and the SWRCB has interpreted this to mean that the discharge "more fully" realize existing beneficial uses or creates new beneficial uses while consistently meeting secondary treatment standards and all NPDES permit conditions. Requiring a study to determine the fate of any increase in discharge beyond 9.0 mgd, however, may be within the Regional Board's discretion in any event, although we have not researched and analyzed that question.

Conclusion:

WQ 79-20 provides controlling authority for the City of Ventura's position that its discharge of 9.0 mgd provides "enhancement" of the SCRE so long as it reliably discharges tertiary treated water, meets its permit conditions, and results in "the fuller realization of existing beneficial uses" in the SCRE by the creation of more useable habitat without compromising other beneficial uses. Notably, if creation of more wildlife habitat suffices to show enhancement, as the SWRCB held in WQ 79-20, then the Los Angeles Regional Board has no basis to require a watershed study in the current draft permit, since there is ample evidence in the record to support a finding that the VWRF's discharge of 9.0 mgd more fully realizes the beneficial uses of RARE and WILD, among others.

Neither of the SWRCB Water Quality Order mandates a burden of proof that is heavier than preponderance of the evidence. Given the clear preponderance of the competent evidence in the record to date, the Regional Board may and should make the express finding that the current discharge still qualifies for the exception pursuant to the EBE Policy since it is reliably treated to tertiary standards, consistently meets its NPDES permit conditions designed to protect beneficial uses of the SCRE, and it creates expanded habitat for avian and aquatic wildlife, thus "more fully realizing" the existing beneficial uses in the SCRE such as RARE and WILD.

The October 21, 1974 memorandum from Bill B. Dendy at the SWRCB to Dr. David Joseph at the North Coast Regional Board might provide further support for the City's position, and we are attempting to locate a copy in case it could be used to augment the record. However, the quotes from it and use of it by the SWRCB in WQ 79-20 already provide controlling authority to support a finding that VWRF discharge enhances the SCRE for purposes of the EBE Policy exception because it creates expanded habitat for waterfowl and aquatic species, thus resulting in the fuller realization of existing beneficial uses.

The NPDES permit or staff reports from the 1980s for the City of Arcata WWTF could provide further persuasive authority, since the North Coast Regional Board very likely made an express finding of enhancement to qualify the WWTF for the exception to the general prohibition in the EBE Policy. Again, we are attempting to locate any such documents. Nevertheless, the indirect evidence indicates that such a finding was made, and therefore the WWTF's current NPDES permit is persuasive evidence that discharge of secondary treated wastewater to an enclosed bay or estuary is sufficient to qualify for the exception so long as it can meet its permit conditions for water quality and it allows for the fuller realization of existing beneficial uses by providing expanded wildlife habitat.

RCH

Attachments:
1. SWRCB Water Quality Order No. 79-20 (May 16, 1979) ("WQ 79-20")
2. Arcata WWTF NPDES Permit (Order No. R1-204-0036, NPDES Permit No. CA0022713)
3. USEPA Office of Water, *Arcata California - A Natural System for Wastewater Reclamation and Resource Enhancement* (1993)

cc: Ariel P. Calonne, Esq.
James E. Neuerburg, Esq.
Mary Lynn Coffee, Esq.
Byron Gee, Esq.