THE CITY OF SAN DIEGO

April 9, 2007

Julie Chan, Ben Tobler, Christina Arias
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

2007 APR -9 P 4:25
SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

Subject: TMDLs for Chollas Creek Dissolved Metals and Bacteria ("Bacti-1")

Dear Julie, Ben, and Christina:

The City of San Diego appreciates the opportunity to comment on these projects. This letter contains the new points the City wishes to emphasize in its comments on these TMDLs. We have also attached our September 18 and 25, 2006 response letters to both TMDLs so those comments are incorporated by reference. Responses to all sets of comments are requested in accordance with the California Environmental Quality Act.

The City of San Diego would like to take this opportunity to express our appreciation to the Regional Board for reviewing our compliance schedule concerns and modifying the compliance schedule. On page 72, the modified compliance schedule is for all pollutants listed in the watershed. The City of San Diego is concerned that new pollutants listed in at the end of the proposed compliance schedule will be required to achieve compliance is a condensed time schedule.

Based on estimates provided by Regional Board staff in the environmental analysis for the Bacti-1 TMDL, the cost to treat runoff from all urbanized land (a reasonable assumption to make since the final TMDL Waste Load Allocation for anthropogenic bacteria is zero) via bioretention would range between $3.2 billion to $51 billion and that the cost to the City for complying with the Chollas Dissolved Metals TMDL via sand filters ranges from $230 million to $1.2 billion (Bacti-1 Environmental Analysis, Table R-3, Chollas Dissolved Metals Environmental Analysis, page 71). These TMDLs are arguably the most costly regulations ever promulgated in the region. While we hope the Regional Board appreciates the costs associated with compliance, our comments are primarily focused on the rationale behind the regulations and the adequacy of the assessment of the environmental impacts that will result from complying with the TMDLs.

Scientific and Regulatory Basis for the Waste Load Allocations

The City is concerned that these TMDLs are moving through the adoption process without sufficient consideration given to whether the proposed WLAs are necessary to protect appropriate beneficial uses. The City suggests that these issues should be

resolved prior to adoption of the TMDLs. For example, Regional Board staff is in the process of conducting a reference study which is expected to show that the current proposal to allow zero anthropogenic bacteria in urban runoff is more stringent than necessary to protect Basin Plan-adopted beneficial uses (the State Department of Health standard for drinking water is higher than the final WLAs proposed in the Bacti-1 TMDL). This approach is similar to the "Reference System Approach" alternative described in the Bacti-1 environmental analysis. This alternative would result in less significant impacts and should therefore be selected for approval.

Similarly, the City has previously presented evidence which suggests that the beneficial uses SHELL and REC-1 have been improperly ascribed to Chollas Creek, resulting in proposed WLAs for metals that are orders of magnitude lower than those permitted at the Point Loma Wastewater Treatment Plant outfall. This approach is similar to the "Water Quality Standards Action" alternative described in the Chollas Dissolved Metals environmental analysis. This alternative would result in less significant impacts and should therefore be selected for approval.

One reason why it is important to consider more appropriate pollutant loads at this point in time is that anti-backsliding provisions in the Clean Water Act will not allow the Regional Board to increase the Waste Load Allocations (WLAs) associated with these TMDLs once the TMDLs are incorporated into the San Diego Municipal Storm Water permit. Even if the standards can be relaxed after they are incorporated into the Storm Water permit, the City will have already taken expensive activities to comply with the TMDLs as proposed prior to relaxation of the standards.

Type and Size of Structural Treatment Controls Required for Compliance

The City has previously submitted substantial evidence documenting expert opinion of this issue. The Regional Board is required to prepare environmental analyses for the TMDLs to assess the impacts of implementing a reasonable range of alternative means of compliance. By understating magnitude of structural treatment facilities needed to comply with the TMDLs, the City believes that the existing environmental analysis does not fulfill the Regional Board's obligation under CEQA.

In summary, construction of hundreds of acres of structural treatment facilities, in conjunction with maximizing infiltration opportunities, will be necessary to comply with the required bacteria and metals load reductions. No evidence has been presented by anyone to suggest that solutions other than infiltration/diversion or treatment of entire rain events can result in compliance. The TMDLs allow no exceedences of load reductions regardless of storm size or duration; therefore, regardless of the treatment mechanism selected (grass swales, retention, biofiltration, sand filters, etc.), treatment facilities will need to incorporate acreage-intensive detention/equalization facilities because storm water cannot be treated as fast as rain falls from the sky – certain contact times are required. The significant impacts to existing development from construction of these treatment and equalization facilities has been previously documented and was

calculated based allowing one exceedence every three years. The City suggests that the TMDLs include an exceedence frequency and that the Regional Board's environmental analysis include an analysis of the acreage required for treatment based on the exceedence standard. What storm size or exceedence frequency was used by Regional Board staff to calculate the costs of implementing the TMDLs?

Siting of Structural Treatment Controls Required for Compliance

The San Diego Municipal Storm Water permit prohibits using Waters of the State to convey or treat storm water. The Bacti-1 TMDL indicates that WLAs must be met prior to discharge of storm water into receiving waters. Given San Diego's topography and existing storm water conveyance system design, Waters of the State/receiving waters generally occur immediately below (downstream of) storm drain outfalls. Therefore, treatment facilities must be located above (upstream of) storm drain outfalls. Moreover, given the propensity for bacteria to breed in the storm drain conveyance system, treatment facilities must be located as close to storm drain outfalls as possible, as the bacteria that regrows in storm drains is considered to be anthropogenic and subject to the zero WLA. Most land above storm drain outfalls is developed with private land uses and these land uses would be displaced by the construction of treatment facilities.

The environmental analysis for both TMDLs states that the construction of treatment BMPs has the potential to displace crops, native biota, and existing land uses but suggests that these impacts can be avoided or minimized by locating treatment BMPs where these things are not present. However, all evidence presented dictates that compliance via treatment requires treatment facilities to be located close to and upstream of storm drain outfalls. Even if treatment facilities are built underground, structures cannot be re-built on top of them. Instead of indicating where treatment BMPs should not be located, the City suggests that the environmental analyses focus on where treatment BMPs may reasonably be located and evaluate the impacts of building treatment BMPs at those locations.

Wetland Impacts Due to Dry Weather Flows

The environmental analyses for both TMDLs identifies as a reasonably foreseeable means of compliance the diversion of dry weather flows to infiltration or sanitary sewer facilities. The current environmental analyses analyze the effects of this compliance mechanism on native, downstream wetland vegetation which is dependent upon these flows; however, the conclusion regarding the significance of this impact is not clear. Overall, the conclusion seems to be that the loss of wetland vegetation which would occur after dry weather flows are diverted is less than significant because remaining and replacement vegetation would be more similar to that which persisted prior to development (i.e., native, upland vegetation). This conclusion that the loss of wetland vegetation is not significant is inconsistent with State policy and the Regional Board's own 401 certification requirements. Have trustee agencies such as the California Department of Fish and Game were consulted on this conclusion? The City suggests that this issue be clarified in revised environmental analyses.

Thank you again for the opportunity to comment on these TMDLs. More detailed comments can be found in the attached and in our previous correspondence. If you have any questions, please call me at (619) 525-8644 or Ruth Kolb at (619) 525-8636.

Sincerely,

Chris Zirkle
Deputy Director

CZ/cz

Att: Detailed Comments Dated April, 2007
Correspondence Dated September 18, 2006
Correspondence Dated September 25, 2006
Pollutographs Prepared by SCWRRP for Chollas/Switzer/Paleta Creek Mouths TMDL

cc: Alejandra Gavaldon
R.F. Haas
Mario Sierra
Ruth Kolb
Fritz Ortlieb

Detailed Comments on the Bacti-1 and Chollas Dissolved Metals TMDLs
City of San Diego
April, 2007

1. Page R-5/page 4 of the environmental analysis for the Bacti-1 TMDL/Chollas Dissolved Metals TMDL indicate that the environmental analyses do not require an examination of every site but a reasonably representative sample of them. Please describe the sample set of sites that were examined in the analyses.

2. Page R-10/Page 7 of the environmental analysis for the Bacti-1/Chollas Dissolved Metals TMDL indicate that sand filters are a good options in densely developed urban areas since the filters occupy minimal space. The City has submitted evidence that sand filters and equalization facilities that would be needed to achieve the Chollas Dissolved Metals TMDL would in fact occupy hundreds of acres of space in order to treat a 3-year storm. Please provide a reference for this statement and quantify the meaning of "minimal".

3. While both environmental analyses note where treatment BMPs should not be built (on Prime Farmland, in special status species habitat, in areas developed with privately-owned land uses), neither analyses identifies where treatment BMPs could reasonably be built. This listing of suitable locations is critical to a determination of whether construction of treatment facilities would result in significant impacts.

4. Please clarify where compliance would be measured for both TMDLs. How would an evaluation of compliance take into account pollutants such as feral animal excrement and aerially-deposited metals that are allowed into receiving waters downstream of storm drain outlets?

    a. How will compliance take into account the aerial deposition from mobile sources and that has been documented by the City? Some of this deposition occurs and is introduced into the storm water stream below storm drain outfalls. Does the Regional Board intend to establish a Load Allocation for this pollutant source?

5. Page R-19/page 15 of the environmental analyses for the Bacti-1/Chollas Dissolved Metals TMDLs indicate that short term construction impacts are not considered to be potentially significant. Why are these impacts considered less than significant on these pages and answered "less than significant" in the discussion section when mitigation measures, in the form of mufflers and lighting plans are recommended?

6. Please clarify the significance determination for changes in native flora and fauna that would result from diverting dry weather flows from storm drain outfalls where the flora and fauna are dependent upon dry weather flows.

a. How would the loss of dry weather flows and the concurrent loss of wetland vegetation affect the habitat-related beneficial uses in the receiving waters?
b. How would the loss of native and vegetation due to diversion of dry weather flows affect temperature in the receiving water?

7. Mitigation measures in the environmental analyses for both TMDLs specify maintaining dry weather flows for purposes of maintaining certain animal populations. What is the reasonably foreseeable means for maintaining these flows given that the flows must also comply with the WLAs?

8. Both TMDLs provide cost estimates for compliance using a variety of structural and non-structural BMPs based on data from EPA and CASQA. What is the design storm or exceedence frequency assumed in the cost estimates listed? In one example, page 70 of the environmental analysis for the Chollas Creek Dissolved Metals TMDL refers to treating 29,072,731 cubic feet of storm water, referring to this quantity as an annual "average". However, the TMDLs do not limit compliance to an average year. How does the lack of a design storm/allowable exceedence frequency affect the cost calculation?

   a. Both environmental analyses reference the costs and effectiveness of Caltrans' BMPs. What was the storm size that the Caltrans BMPs were designed to and are they effective in wet weather. If they are effective in wet weather, please extrapolate the acreage required for the BMP and its equalization facilities to give a fair representation of the acreage required in the watersheds affected by the TMDL.

9. Given known data regarding water quality in the affected watersheds, what approximately is the percentage of a typical storm event that would need to be treated in order to comply with the TMDL? In other words, would "first-flush" treatment likely achieve loading requirements throughout a typical storm?

10. In discussing impacts to population and housing, the environmental analyses for both TMDLs recommends evaluating and implementing more reasonable alternatives such as nonstructural BMPs and low impact and/or small scale structural BMPs before considering an alternative that would create considerable hardship for the community in the area. This is what the City proposed in its September, 2006 correspondence; however, the City concluded that such efforts would most likely not result in compliance. Please expand on how the Regional Board envisions that this means of compliance would roll out given the interim compliance goals.

11. Is it possible to increase the WLAs for either TMDL (i.e., as a result of new Site Specific Objectives, change to beneficial uses, results of implementing a tiered

approach, completion of the bacteria reference study) after the TMDL is incorporated into the San Diego Municipal permit?

12. When is it anticipated that the TMDLs will be incorporated into the San Diego Municipal permit?

13. The City requests that both TMDLs include a re-evaluation provision so that the need for the final WLAs can be formally re-evaluated after non-structural and less-intensive BMPs are evaluated for their maximum effectiveness.

14. Page R-61/page 57 of environmental analyses for the Bacti-1/Chollas Dissolved Metals TMDLs indicates that the analyses do not analyze all possible means of compliance because alternative means of compliance consist of the different combinations of BMPs that dischargers might use and there are innumerable ways to combine BMPs. The preceding is correct in that the analyses not include combinations of BMPs that are not expected to result in compliance with the WLAs in the TMDLs. However, the analyses unfortunately do not list any single BMP or combinations of BMPs that 1) are documented to result in the required load reductions and 2) will not have significant impacts by displacing existing development. Please list a single combination of non-structural and less-intensive BMPs that will result in compliance with the Bacti-1 TMDL and, for the Chollas Creek watershed, both TMDLs.

15. Why is there such a large discrepancy between the cost estimates in the Chollas Creek watershed to comply with the two TMDLs (Tables R-3 and I.2)? As suggested previously, the environmental analyses for the TMDLs should address the cumulative effects of both TMDLs (in terms of cost insofar as such an analysis is required, but certainly in terms of environmental impacts).

16. The City is requesting that San Diego State University and any other universities and colleges be notified to participate in these TMDLs and the Phase II Municipal Storm Water Permit program.

17. Page 6 of the environmental analysis for the Chollas Dissolved Metals TMDL states that certain BMPs were not considered as an option because they would require condemnation and demolition of large areas of private property and that cheaper and smaller BMPs are available to meet the WLAs of the TMDL. A number of various BMPs are then listed. Please provide citations showing that the BMPs listed, or combinations of the BMPs listed, will achieve the WLA of the TMDL and the acreage required for their construction.

18. Page 7 of the environmental analysis for the Chollas Dissolved Metals TMDL does list removal efficiencies for bioretention facilities that would appear to result in TMDL WLA compliance. City staff followed up with the professor who conducted the experiments referenced by Regional Board staff. In order to

achieve metals removal in the range of 95%-97%, the flow rate through the bioretention facility was an order of magnitude slower than the flow rate estimated by the City for sand filters. Please provide the acreage required for bioretention facilities, including the required equalization facilities, to comply with the TMDL.

19. At what point of the approval process does the implementation period (e.g., 20 years for the Chollas Dissolved Metals TMDL) begin?

20. Please resolve the discrepancy in the environmental analysis for the Chollas Creek Dissolved Metals TMDL on page 71 where compliance via sand filters is estimated at $1.19 billion and Table I.2 where compliance via sand filters (assuming 100% treatment) is estimated to cost $150 million.

21. Page 26 of the environmental analysis for the Chollas Creek Dissolved Metals TMDL describes flood hazards that could occur if BMPs are not properly designed and constructed to allow for bypass of storm water that exceed design capacity. What storm size is it expected that BMPs will be designed to?

22. Based on the City's recently-submitted aerial deposition study, we disagree that, aerial deposition is only a "potential" source of pollution (page 2 of the Chollas Creek Dissolved Metals Technical Report), that aerial deposition is "not considered significant at this time" (Ibid, page 7). The subject study, though not peer-reviewed, constitutes "substantial evidence" that aerial deposition plays a major role in Chollas Creek.

23. Section 11.4.1 of the Bacti-1 TMDL incorrectly identifies the "priority" of some creeks. The Bacti-1 applies the water quality standards throughout the watershed. On page 41 the enterococcus standard is listed as 61 most probable number (MPN)/100 milliliters (ml). This standard was taken from the Basin Plan, page 3-6 for a freshwater designed beach. We question the application of freshwater "beach" standards to the rivers and creeks in this TMDL. In the Basin Plan there are also designations for moderately or lightly used areas at 108 MPN/ml or infrequently used areas at 151 MPN/ml. We request the Regional Board revisit the designation of freshwater water quality standards and concern the application of moderately or lightly used areas that is similar to the saltwater standards.

24. Page R-6 of the environmental analysis for the Bacti-1 TMDL states that the adoption of a TMDL is not discretionary; rather, it is compelled by section 303(d) of the federal Clean Water Act.

    a. If adoption of the TMDL is not discretionary, why is the Regional Board preparing CEQA documentation for the action? CEQA compliance is only required if an agency proposes a discretionary action.

b. Why is the Bacti-1 TMDL being proposed for beaches that are not currently on the 303(d) list? On March 13, 2007, the US Environmental Protection Agency (EPA) partially approved the 2004-2006 303(d) List of Impaired Waterbody Segments. This list included the removal of 12 Scripps HA (906.30) ocean beaches. These beaches have not been removed from the TMDL for Indictor Bacteria Project 1. The City is requesting that these beaches be removed from this TMDL. The Clean Water Act, 40 CFR Section 131.38 has provisions for toxic pollutants to remain on the list for subsequent listing cycles; however, bacteria is not a toxic pollutant and has not met this criterion.

25. Why does the Bacti-1 environmental analysis not recognize that storm water treatment via ozonation, ultraviolet radiation, reverse osmosis, or chlorination/de-chlorination are reasonably foreseeable means of compliance? The City is aware of no evidence to suggest that compliance with the zero WLA for bacteria can be achieved by any other treatment method.

    a. Please provide references for any BMP that indicates that any BMP will achieve compliance with the TMDL – that they are 100% effective under all storm conditions or the prescribe storm conditions.
    b. Please provide references for the BMPs that are listed in the environmental analysis that would indicate that these BMPs would result in compliance with the final WLAs.

26. For the bacterial TMDL, please clarify whether the final Waste Load Allocation for all anthropogenic indicator bacteria is zero.

27. For the bacterial TMDL, please clarify whether bacteria from feral dogs and cats, potable water (up to 2 MPN/100 ml) that could be used to maintain wetland vegetation after diverting dry weather flows, and re-growth in storm drains would be considered anthropogenic sources.

28. If future monitoring were to find that that bacteria concentrations are in excess of the TMDL limits, please clarify how it would be determined whether the exceedence is or is not due to anthropogenic bacteria. Would the City be required to conduct DNA testing to prove that anthropogenic bacteria are not the cause of the exceedence? We are not aware of many laboratory facilities that can conduct this type of testing.

29. Why doesn't Regional Board staff complete the bacteria reference study before recommending adoption of the Bacti-1 TMDL?

30. On page 10, the Bacteria TMDL lists the municipalities and Caltrans that are in the Chollas Creek Watershed. The City requests that the US Navy be included in this TMDL.

31. The City is concerned why we have to investigate bacteria loads from Regional Board regulated landfills when these facilities already have WDRs. The City is requesting that draft report removed those landfills with existing WDRs from this TMDL because those facilities are regulated directly by the Regional Board.

32. Please identify the Lead and, if they exist, the Responsible and Trustee Agencies (all as defined by the California Environmental Quality Act) associated with this project.