

Appendix M
Response to Comments

Chollas Creek Metals Total Maximum Daily Loads

California Regional Water Quality Control Board, San Diego Region

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LIST OF PERSONS SUBMITTING COMMENTS

- Brake Pad Partnership
- California Department of Transportation
- City of San Diego
- San Diego Coastkeeper
- Sierra Club
- John Stump
- Tershia d'Elgin

1. INTRODUCTION

This report provides responses to public comments received on the Total Maximum Daily Loads (TMDLs) for Copper, Lead, and Zinc in Chollas Creek. Draft TMDL documents distributed for public review and comment included the Technical Report, Resolution No. R9-2007-0043, and the Basin Plan Amendment. The draft documents were made available to the public for formal review and comment for two comment periods, through the website of the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) and at the San Diego Water Board office. The first public comment period opened July 25, 2006, and continued for 45 days. The second comment period opened March 9, 2007, and continued until the San Diego Water Board adopted this TMDL. Please note that these comments and responses are only for the Chollas Creek metals TMDLs documents dated July 25, 2006, and March 9, 2007. Comments and responses to the June 2005 Chollas Creek metals TMDLs documents are located in the case file for this project.

The San Diego Water Board received many new comments in testimony, letters, and emails from interested persons on the draft TMDL documents. The letters were not reproduced in this document. Individual comments were excerpted from the letters and testimony, and organized by the commenter. The comments are numbered sequentially in this report. Individual commenters are identified in the “List of Persons Submitting Comments” on page iii of this appendix.

2. COMMENTS ON JULY 25, 2006 TMDL DOCUMENTS

2.1. Comments from the City of San Diego (September 25, 2006)

The San Diego Water Board received comments from the City of San Diego (City) on September 25, 2006. following is the San Diego Water Board’s response to those comments. However, because the City’s comments were frequently repeated in various parts of the document, we have organized the comments into common groups to provide clarity and to facilitate better comprehension of both the comments and responses. The San Diego Water Board did not respond to comments the City made which concerned only the indicator Bacteria TMDLs Project I, Beaches and Creeks in the San Diego Region, or where the comment did not address the Chollas Creek Metals TMDLs specifically. The common groups include the following:

- Time Schedule and Integrated TMDL Implementation
- Lack of Detail
 - Design Storm
 - Significance Threshold
 - Substantial Evidence
 - Other Lack of Detail Comments
- Tiering

- Alternatives Analysis
- Tributary Rule
- Dry Weather
- Aerial Deposition
- Statement of Overriding Considerations
- Other Specific Comments

2.1.1 Time Schedule and Integrated TMDL Implementation

Comment No. 1: The City's biggest concern regarding the Chollas Creek metals TMDL is with the proposed compliance schedule. The TMDL Technical Report states the following regarding discharger activities to achieve the WLAs:

Dischargers are expected to implement metal reduction [Best Management Practices or "BMPs"] during the first year after OAL approval of this TMDL, with all necessary metal load reductions being achieved within ten years. The first three years of the compliance schedule do not require a significant decrease from current conditions. These years will provide the dischargers time to develop plans and implement enhanced and expanded BMPs that should result in immediate decreases of metal concentrations in the Chollas Creek water column. Three years are provided for these measures to begin to lower Chollas Creek metal concentrations before the first reduction is required.

This compliance schedule is inconsistent with sound planning, engineering and public policy considerations because: (1) it assumes that non-structural BMPs will achieve a high level of reductions; and (2) it requires the most difficult reductions – the last 50 percent of metal loadings – to be achieved in the last three years of the compliance schedule. The second point is the most critical. If – as contemplated by technical report's compliance schedule and as set forth in detail in staff's April 7, 2006 letter to the State Water Resources Control Board – dischargers deploy the non-structural BMPs first, then the full measure of reductions will be achieved once those BMPs are operational. Hence, the only reason compliance would not be achieved upon implementation of all non-structural BMPs is that those BMPs are not capable of achieving the wasteload allocations [WLAs] on their own. This is implicit in staff's proposed compliance schedule. Hence, the only way the compliance schedule in the Technical Report makes sense is if the dischargers will know sufficiently in advance of the 10-year compliance deadline where structural BMPs will be required such that they can be constructed, operating and achieving the required reductions by Year 10. Based on the City's detailed analysis discussed later, this is unrealistic.

The first critique of staff's proposed compliance schedule is not as intuitive. The available data suggests that non-structural BMPs will reduce pollutant loads between 30 percent and 70 percent. Staff's proposal appears to "shoot for the middle" and requires a

50 percent reduction in WLA exceedences by Year 7. The City believes that this is a little too simplistic. This TMDL targets the *toxicity* of *dissolved* metals. Compliance with this TMDL is, therefore, affected by two separate factors: (1) the volume of metals that enter both urban runoff and the receiving waters; and (2) the hardness of the urban runoff and receiving waters (which affects the ability of the metals to be absorbed by organisms and hence be toxic). As detailed in the Weston Report, the effectiveness of the available non-structural BMPs cannot be predicted because there is a dearth of data at the subwatershed level regarding Chollas Creek's water hardness and metal loadings. Thus, assuming that – on average – non-structural BMPs will achieve the median level of pollutant reductions is too simplistic to *mandate* that level of compliance.

In addition to these flaws inherent in the proposed compliance schedule, there are other extrinsic matters that affect the actual time needed to achieve the WLAs proposed in this TDML:

The TMDL uses a non-integrated, TMDL approach. We recommend integrated watershed based TMDLs to allow for the development and implementation of more holistic, efficient programs to improve water quality.

The TMDL schedule does not allow for maximizing the use of non-capital and non-land intensive BMPs. The TMDL fails to allow sufficient time for the City to identify the most effective combination of BMPs and minimize dislocation of residents and businesses through an iterative approach to BMP implementation.

With these concerns in mind, the City proposes an alternative compliance schedule. As evidence of the City's commitment to improve water quality, the City has already retained a well-respected and experienced water quality consulting firm – Weston Solutions, Inc. – to evaluate the BMPs the City can implement to achieve the WLAs proposed in this TMDL. This consulting firm prepared a report (hereinafter referred to as "the Weston Report"), which the City submits with these comments, setting out the City's options for complying with this TMDL. The Weston Report concludes – consistent with the implication in the Technical Report – that it will be necessary to implement *some* treatment facilities to achieve compliance.¹ Based on Regional Board staff's claims that they are not required to analyze the environmental impacts associated with implementing structural BMPs, it is reasonable to conclude that Regional Board staff has not analyzed the planning and construction activities associated with implementing these BMPs. Again, this is reflected in the proposed compliance schedule that requires the last 50 percent of exceedence reductions to be achieved in Years 8 through 10, even though these pollutant reductions require the most resource-intensive BMPs. These types of BMPs require significant time to plan, conduct thorough environmental review, acquire land, let construction contracts, construct the treatment works, and then verify that the treatment works are operating as planned (i.e., achieving

¹ Despite the opportunity in its April 6, 2006 submittal to the State Water Resources Control Board, the San Diego Regional Board, on the other hand, has *never* claimed that achieving the reductions necessary to achieve the water quality objectives of the TMDL can be achieved *solely* through non-structural BMPs. The City is unaware of data that would support a conclusion that the WQOs can be achieved with only non-structural BMPs.

the required pollutant reductions) – a process the City will need to conduct ***for each treatment work that must be constructed***. Moreover, this entire process requires adequate funding to be available for constructing new public works, or substantially altering the manner in which existing public works projects (e.g. pavement re-surfacing) are carried out. Based on the City’s significant experience with public works projects, it is the opinion of the City of San Diego that accomplishing this in less than 10 years is an unrealistic expectation, short of making wild assumptions on the need for structural BMPs construction and undertaking a massive public works construction campaign that will displace significant numbers of residences and businesses, contrary to sound public policy.

In an effort to minimize the significant adverse impacts associated with such an outlandish compliance scenario, the City requests that the Regional Board consider an alternative compliance schedule to that proposed in the TMDL Technical Report. This alternative compliance schedule is graphically presented in the Weston Report as Figure ES-8 on page xxvi. While the waste-reducing activities employed under both plans are not fundamentally different – both maximize the use of non-structural source controls, such as education, product substitution, street sweeping, and low-impact treatment techniques such bioretention and passive infiltration prior to implementing more land-intensive treatment trains – the critical difference is that the City’s alternative presents a compliance schedule that is based on sound engineering, scientific, and public policy considerations. The foundation of this fundamental difference is that it is necessary to assess the effectiveness of non-structural BMPs with stakeholders before deploying land-intensive treatment trains, which allows the City to carefully implement these measures in a manner that will minimize the condemnation of private property.

As reflected in Figure ES-8 of the Weston Report, the City believes that it can deploy all Tier I BMPs within five years of OAL approval of this TMDL, and will have pilot data available on Tier II BMPs.² Based on existing data, the Tier I BMPs should achieve a 30 percent reduction in metal loading. Hence, the City proposes an interim compliance goal of a 30 percent reduction in metal loadings five years after OAL approval. After those BMPs are deployed, the City believes that there should be a one year evaluation period, where the City assesses the synergistic effect of all non-structural BMPs being implemented. During this initial six year period, the City would also use early monitoring data to site targeted structural BMPs, construct these projects, assess their effectiveness and use that data to develop a master plan for structural BMP deployment.

Once the data from targeted structural BMPs and the complete implementation of Tier I BMPs is collected, the City would begin the arduous task of planning, siting, designing, and constructing Tier II and III BMPs – where needed throughout the watershed – followed by monitoring to assess their effectiveness. Based on the City’s extensive experience in constructing public works projects, it will take 14 years after the City has

² The distinction between the various BMP tiers is the amount of capital investment required. Tier I BMPs are labor intensive, with limited amount of capital required. The Tier II BMPs require significant capital investment; some can also be implemented in existing rights-of-way. Tier III BMPs require land acquisition and development.

all the Tier I data to fully construct and implement the capital and land intensive Tier II and Tier III BMPs. Thus, the City proposes to fully meet the WLAs in Year 20. Despite a desire to show good faith efforts at compliance, because of the dearth of data and the lack of a critical planning point that lies between full deployment of Tier I BMPs and the implementation of Tier II and Tier III BMPs – the City is unable to fashion a logical interim compliance goal – or at least one that is expressed as a percentage reduction in pollutant loading or as a reduction in WLA exceedences – that lies between a 30 percent reduction in metal loadings in Year 5 and full attainment of the WLAs in Year 20. The City is currently evaluating the feasibility of non-numeric interim compliance goals and will provide that information to the Regional Board when it is fully developed, hopefully well in advance of the public hearing on this TMDL.³

The compliance schedule, including the interim compliance goals, is inconsistent with the Technical Report's assessment of how dischargers will likely implement this TMDL because it requires the most difficult reductions in pollutant loading to occur in less than one-third of the compliance schedule. Because these pollutant reductions will require the most intensive BMPs, likely structural BMPs, it is unreasonable to expect these reductions to occur within three years after non-structural BMPs have been fully implemented because the data on where these BMPs will be necessary will not be complete.

The compliance schedule has interim compliance goals of a 15 percent reduction in wasteload allocation exceedences in Year 4 and a 50 percent reduction in wasteload allocation exceedences in Year 7. Please identify all considerations that served as the basis for suggesting these percentages and the compliance dates.

The TMDL uses a non-integrated, TMDL approach. We recommend integrated watershed based TMDLs to allow for the development and implementation of more holistic, efficient programs to improve water quality.

The TMDL schedule does not allow for maximizing the use of non-capital and non-land intensive BMPs. The TMDL fails to allow sufficient time for the City to identify the most effective combination of BMPs and minimize dislocation of residents and businesses through an iterative approach to BMP implementation.

The CEQA analysis needs to address all reasonably foreseeable future TMDLs for the Chollas Creek watershed in conjunction with the metals TMDL because the City must address all TMDLs in an integrated fashion. It is not reasonable to expect that the City will build BMPs to address the metals TMDL and then a second, separate set of BMPs to address the bacteria or other future TMDLs. The need to address both TMDLs affects the types of BMP that will lead to compliance and the location of the BMPs. The CEQA analysis should also incorporate City of San Diego plans and policies into its evaluation.

³ The City notes that, as described in the Technical Report at page 74, that the MS4 permit can be issued with a combination of numeric and non-numeric WQBELs. It is possible that a non-numeric WQBEL could be proposed as an interim compliance goal between Year 5 and Year 20.

Page 6 of the Regional Board's "Discussion Paper" indicates that implementation of TMDLs in Chollas Creek will not result in adverse cumulative impacts to Chollas Creek, in part due to the fact that the Chollas Creek MS4 dischargers are already required to implement BMPs.

When considering BMPs to address the TMDL, the City must consider the effectiveness of a BMP to address both TMDLs. The Regional Board should consider the bacteria and metals TMDL as a single, integrated TMDL with an appropriate implementation schedule similar to the dissolved metals TMDL adopted by the Los Angeles Region for Ballona Creek and the Los Angeles River. As suggested by the Stakeholders' Advisory Group for the Bacti-1 TMDL, the City suggests that a 20-year implementation schedule is more realistic.

Given the magnitude of BMPs that need to be built in order to comply with the TMDL, the proposed 10-year implementation schedule essentially guarantees non-compliance. Additional time is needed to evaluate the feasibility and effectiveness of the complex suite of BMPs that could be built in "treatment train" fashion to achieve TMDL compliance in some parts of the watershed. This "neighborhood friendly" compliance scenario is described in Attachment 3 and is proposed by the City in lieu of a more aggressive "infrastructure intensive" solution that would achieve compliance sooner.

Response: The San Diego Water Board agrees that an integrated BMP approach to encompass the requirements of various TMDLs is a preferable method of action on the part of the dischargers. Since Chollas Creek is impaired for diazinon, metals, bacteria, and trash dischargers should seek non-structural and structural BMPs that are effective at reducing these pollutants collectively. Therefore, the compliance schedule described in the Technical Report has been modified to allow 20 years, rather than 10 years, to achieve full compliance with the TMDLs (no allowable exceedances of the water quality objectives). As an interim milestone, the compliance schedule has an allowance for 20 percent exceedance of the water quality objectives after 10 years. The Technical Report was revised to reflect these changes. Please see section 11 for more details.

The City argued that an appropriate time schedule would extend to 20 years to reach full compliance, based on the recommendations of the *Chollas Creek TMDL Source Loading, Best Management Practices, and Monitoring Strategy Assessment*, or "Weston Report" (Weston Solutions, 2006), and the San Diego Water Board agrees that 20 years is adequate for achieving TMDLs. The City stated that they can deploy Tier 1 BMPs (source control and prevention from entering runoff) *within five years of OAL approval of the TMDLs*, which is the first step in achieving TMDLs within 20 years.

Chollas Creek was placed on the List of Water Quality Limited Segments for impairment due to metals in 1996. Subsequently, the San Diego Water Board has been developing the metals TMDLs, with City involvement, for over 5 years. Additionally, Receiving Water Limitation C.2.a of the City's MS4 NPDES requirements issued in 2001 (Order No. 2001-01) states that dischargers must report BMPs that are currently being

implemented, and additional BMPs that will be implemented, to prevent or reduce any pollutants that are causing or contributing to the exceedances of water quality objectives. Given this information, 20 years is adequate time for achieving compliance with the TMDLs. There is no need for dischargers to delay action that would result in improved water quality until final approval of these TMDLs; action to reduce metals loading should have begun upon issuance of Order No. 2001-01.

2.1.2 Design Storm

Comment No. 2: *The TMDL does not provide adequate guidance for compliance.*

Neither the technical report nor the CEQA analyses designate a design storm. Knowing the capacity required of a BMP is critical to designing facilities which will comply with the TMDL while minimizing acreage requirements and capital costs.

The magnitude of the impact associated with building BMPs to comply with the metals and bacteria TMDLs is based upon the amount of storm water that needs to be treated. To date, the Regional Board has declined to establish a "Design Storm" which would provide direction to the City on the size/capacity of BMPs required. Therefore, the City has relied on language in the California Toxics Rule which states, "Neither the Aquatic Life Chronic Criteria nor the Aquatic Life Acute Criteria can be exceeded more than once every three years (40 CFR 131.38 (c)(2)). For engineering purposes, this translates in the need to ensure that runoff from a maximum three-year storm meets to meet the Wasteload Allocations established for the metals TMDL. The bacteria TMDL is silent on the appropriate design storm; therefore, the assumptions in Attachment 3 are very conservative. However, this sizing criterion must be augmented by pollutograph data which shows how actual concentrations of metals and bacteria change during storms and during the storm season. Current data suggest that concentrations of dissolved metals increase through storms and over the storm season.

In order to provide an analysis of the impacts associated with building BMPs to address the metals and bacteria TMDL, the Regional Board must begin with a programmatic evaluation of the size of storm that must meet the Wasteload Allocations. What is the maximum storm size that the Regional Board expects to meet the Wasteload Allocations and how is that storm size factored into the Regional Board's analysis of the impacts of building BMPs? As can be seen in the Weston report, the decision on the size of storm that needs to be treated has a significant effect on the magnitude of public works required.

Response: The CEQA's provisions allow the San Diego Water Board to limit analysis in these substitute environmental documents to broad environmental issues which are ripe for decision at the TMDL adoption stage. At this stage, the San Diego Water Board is not required to evaluate environmental issues associated with specific projects undertaken to comply with the TMDLs. CEQA provisions allow for project level environmental considerations to be deferred so that more detailed examination of the effects of these projects in subsequent CEQA environmental documents can be made by the appropriate lead agency.

The San Diego Water Board does not need to designate the storm size for the design and construction of the BMPs to meet CEQA requirements for the TMDLs. The CEQA requires that the San Diego Water Board provide substitute environmental documents that contain sufficient information and analysis for the public to understand the potential adverse environmental impacts of the project, and to provide the San Diego Water Board with meaningful discussion and comment on these impacts. Our substitute environmental documents do that by describing a range of potential structural and non-structural controls the dischargers could construct or implement to meet the wasteload allocations (WLAs). The documents also discuss the potential adverse environmental impacts associated with those controls. Because the CEQA does not require the San Diego Water Board to speculate on the location or size of specific structural controls that the dischargers might choose to implement, we did not specify any sizing criteria such as a design storm.

The San Diego Water Board appreciates the City's efforts in moving forward with BMP planning, and is willing to discuss potential BMP siting and design issues, and different compliance monitoring approaches that could be used. However, the San Diego Water Board does not have the authority to delegate which methods or BMPs must be used to comply with the metals TMDLs. Additionally, it is not the purpose of the TMDLs to provide complete guidance for compliance. The San Diego Water Board has flexibility in making waste discharge requirements consistent with WLAs and establishing monitoring programs to gage compliance. That being said, for initial BMP planning purposes, the metals CTR criteria for an allowable exceedance every three years can be interpreted as a three year design storm.

However, the link between design storms and likelihood of water quality exceedances is a complicated issue that deserves more-detailed analysis than a simple recurrence interval specified in CTR. We have no evidence indicating a direct correlation between water quality concentrations and storm magnitudes. In other words, larger storms do not mean larger metals concentrations. Smaller storms can also exceed CTR metals objectives, or all storms could exceed CTR metals objectives. Much discussion and modeling analyses have been performed by SCCWRP to support the Los Angeles Water Board and stakeholders in the Los Angeles Region. This analysis has included model simulation of various design storms and comparison to model-predicted water quality and loads of metals and indicator bacteria. SCCWRP has provided additional modeling analysis of BMP implementation scenarios to evaluate practical solutions to provide the required TMDL load reductions. Following over a year and a half of meetings, analyses, and discussions, a design storm has not been determined for the Los Angeles Region. However, much of this information and lessons learned can be provided to the San Diego Region to inform discussions and focus efforts in selection of appropriate design storms. For more information on the Los Angeles Region studies, please contact Xavier Swamikannu of the Los Angeles Water Board.

To support development of TMDLs for the Chollas Creek watershed and the estuary, an LSPC watershed model was developed by Tetra Tech and SCCWRP. This model was used to test possible reduction of metals loads through implementation of various

detention/infiltration BMPs. This analysis, requested by SCCWRP, was performed to provide information similar to that used in Los Angeles Region for discussion of design storms and BMP implementation. Results were presented by SCCWRP at a recent meeting with Chollas Creek stakeholders and the San Diego Water Board, and stakeholders were asked if they were interested in using the model for further analysis to test load reduction scenarios. Stakeholders showed no interest at that meeting, but SCCWRP plans to follow up with the City of San Diego at a later time. For more information, contact Ken Schiff of SCCWRP.

2.1.3 Significance Threshold

Comment No. 3: The CEQA analysis must draw conclusions regarding the “significance” of the impacts evaluated, not just whether they are “adverse”.

The City has previously stated that the Regional Board must assess the impacts of building BMPs to comply with the TMDL. As noted above, the Regional Board does apparently concur to some degree with the City’s position on this as the Regional Board has considered this impact with respect to aesthetics, air quality, biological resources, and noise. However, as noted in Attachment 1, there are a number of other issue areas that should be addressed because impacts are potentially significant. While the CEQA checklist provides no rationale for why the “no impact” box was checked for these issue areas, Attachment 1 includes substantial evidence that these impacts should be considered significant.

Response: New analysis was added to the March 9, 2007 version of Appendix I Environmental Analysis, Checklist, and Economic Factors. This analysis elaborates on levels of significance. In most cases the level of significance has been set equal to long term, lasting impacts. Short term impacts, such as those related to the construction of BMPs, are not considered significant due to their short durations. The checklist discussion includes potential mitigation for impacts that are determine to be significant, i.e., those impacts that could be long term. Additionally, explanations for the “no-impact” answer were provided in the checklist.

2.1.4 Substantial Evidence

Comment No. 4: PUBLIC RESOURCES CODE § 21080(e)

The following analyses in Chapter 13 and Appendix I are deficient because the conclusions are not supported by substantial evidence:

Aesthetics – Appendix I states that the creation of structural BMPs can create adverse aesthetic impacts. The Regional Board’s analysis of this impact states:

Depending on the controls chosen, the project may result in the installation of urban runoff storage, diversion, or treatment facilities and other structural controls that could be aesthetically offensive if not properly designed, sited, and maintained. Many structural controls can be designed to provide habitat, recreational areas, and green spaces in addition to improving urban runoff water quality. In-creek diversions should not be used as controls, therefore, there should be no adverse impacts on aesthetics resulting from construction of concrete-lined basins or treatment facilities within creeks.

This analysis is legally inadequate because it does not state what constitutes a significant aesthetic impact and how designing the treatment works to serve as habitat, recreational areas, or green spaces mitigates any adverse aesthetic impact, much less mitigating any significant, adverse impact below the level of significance. In addition, the analysis ignores the reasonably foreseeable size and location of the BMPs described above; the works would be too small and subject to too many edge effects to create sustainable habitat. Moreover, regular maintenance would require periodic removal of plant growth and sediments. Topographically, it is reasonable to assume that basins associated with the works will need to be excavated and that significant portions of the basins would consist of manufactured slopes, limiting recreational opportunities. Thus, the “analysis” is merely “speculation, unsubstantiated opinion or narrative” that does not support the conclusion that the listed impact will be reduced below the level of significance, and is not, therefore, supported by substantial evidence, as required by law.

Response: The levels of significance for aesthetic impacts were set at no long term impacts including among other considerations, no long term obstruction of any scenic vistas. New analysis of aesthetics was added to the March 9, 2007 version of Appendix I Environmental Analysis, Checklist, and Economic Factors that expanded the previous discussion and addressed the City of San Diego’s concern.

Comment No. 5: Air Quality – Appendix I makes the following statement regarding Air Quality:

The construction of structural controls might adversely affect air quality because construction might require the use of diesel fuel engines to operate equipment. Potential impacts are likely to be limited and mostly short-term in nature. Impacts may be mitigated through measures such as limiting hours and amount of construction, eliminating excessive idling when vehicles are not in use, limiting construction during periods of poor air quality, and/or using alternative fuel vehicles rather than diesel fuel vehicles. Any impacts to air quality, both short-term and long-term,

would be subject regulation by the appropriate air pollution control agencies under a separate process.

This analysis is deficient because the analysis does not state what the threshold of significance for impacts to air quality from toxic air pollutants, nor does it have any basis for concluding that the programs implemented by air pollution control agencies will, in fact, reduce any impacts below the unstated threshold of significance. Thus, the “analysis” is merely “speculation, unsubstantiated opinion or narrative” that does not support the conclusion that the listed impact will be reduced below the level of significance, and is not, therefore, supported by substantial evidence, as required by law.

This analysis is also deficient because, to the extent that street sweeping is a reasonably foreseeable means of compliance, Appendix I incorrectly states that there is no impact to the applicable air quality plan.

Response: The levels of significance for air quality impacts were set at no long term impacts including among other considerations, no long term degradation of ambient air quality or long term ongoing problems with odor which can not be remedied. New analysis was added to the March 9, 2007 version of Appendix I Environmental Analysis, Checklist, and Economic Factors that expanded the previous discussion and addressed the City of San Diego’s concern. Additionally, an analysis which includes the air quality impacts of street sweepers was added to the Checklist where the impact was determined to be less than significant with mitigation.

Comment No. 6: Biological Resources – Appendix I states that there are potential impacts to riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service, but that those impacts would be reduced below the level of significance through mitigation.

The analysis does not state what sensitive species are located within the project area. It does not mention the San Diego County Multiple Species Conservation Plan – a regional plan that addresses impacts to sensitive species. The cursory analysis seems to assume that the only manner in which habitat or species can be impacted is through urban runoff flow diversion; even though the construction of treatment works could displace non-riparian species. Given the experience with the Aliso Creek bacteria treatment facility, it is reasonable to assume that upland impacts may occur as a result of the need to intercept sheet flow runoff from canyon walls for treatment before these flows enter receiving waters. These interceptors would logically be located near and above the receiving waters - in areas where many canyons support native, upland vegetation and sensitive species. Accordingly, impacts would result not only from construction of the diversions, but also from construction of treatment works and the associated pumps that would be necessary to put the treated water back into the receiving waters at a location near its diversion point.

Once again, the analysis does not contain facts, reasonable assumptions predicated on facts, or expert opinion based on facts; it is merely “speculation, unsubstantiated opinion or narrative” that does not rise to the level of substantial evidence.

Response: Although the analysis does not list the sensitive species in the watershed, this information can be gotten from a search of the California Natural Diversity database or through surveys of the specific location chosen for BMP construction. Thank you for bringing the San Diego County Multiple Species Conservation Plan to our attention. Dischargers should consult this plan if sensitive species are present at BMP construction sites.

That sheet flow from the urban areas flowing over canyon walls will need to be treated is not reasonably foreseeable. First, the volume of this flow will be small compared to flow from storm drain outfalls. Second, the watershed model for Chollas Creek predicts minimal loading from open space areas such as canyon walls. This is because dissolved metals tend to bind to soil particles when stormwater contacts soil.

Comment No. 7: Cultural Resources – Appendix I completely fails to address potential impacts to cultural resources. There is ample evidence available from local land use agencies about the location of cultural resources in San Diego County.

The affected watersheds are located in parts of San Diego that are designated as “Urbanized” or “Urbanizing” by the City’s Progress Guide and General Plan because they are fully developed or in the process of being developed. Many structures within the watersheds were built prior to 1960, making them at least 45 years old and thus potentially significant historic resources under the criteria in 14 C.C.R. section 15064.5(a)(3)(C). Thus, with regard to checklist item V(a), the loss of an undetermined number of significant historic structures (located above storm drain outfalls/tributaries) should be considered a potentially significant effect.

With regard to checklist item V(b), it is generally accepted by land use agencies that because many older structures were built prior to or without the benefit of heavy earth-moving equipment, the soils underneath older structures have the potential to contain potentially significant archaeological resources. Therefore, the excavation of soils under potentially significant historic resources should be considered to have a potentially significant effect on archaeological resources.

Response: New analysis on potential impacts to cultural resources was added to the Appendix I Environmental Analysis, Checklist, and Economic Factors in the March 9, 2007 version of the Technical Report, which addresses the concerns in the comment.

Comment No. 8: Hydrology and Water Quality - Appendix I states that the diversion of storm flows and dry weather urban runoff would cause impacts to existing drainage patterns, but concludes that any such impact would be less than significant because “diversion of the entire stormflow of a creek is not required to meet wasteload allocations.”

This statement is not supported by facts, reasonable assumptions predicated on facts, or expert opinion based on facts. There is no technical way for an MS4 operator to ascertain what percentage of a storm flow must be diverted for a particular storm to ensure that the pollutant loads do not exceed the wasteload allocations. If treatment is necessary, all storm flow must be detained and treated to ensure that the standards are met. Thus, the conclusion that this impact will be less than significant is ; “speculation, or unsubstantiated opinion” that does not rise to the level of substantial evidence.

Response: New analysis on potential impacts to hydrology and water quality was added to the Appendix I Environmental Analysis, Checklist, and Economic Factors in the March 9, 2007 version of the Technical Report, which addresses the concerns in the comment.

Comment No. 9: Geology and Soils – Appendix I concludes that there will be no impacts to Geology and Soils. This conclusion is no supported by substantial evidence.

Excavating infiltration works in the vicinity of canyon rims has the potential to make canyon walls unstable (only basins serving an equalization purpose could be lined). Increasing infiltration increases instability even if the slope in question is already engineered. For slopes that aren’t engineered (and this is the case in older neighborhoods – see above), this instability can lead to failure. Increasing the integrity of slopes downhill of detention works could also result in increased impacts to biological resources or, if retaining walls are used, aesthetic impacts. Therefore, as a result of the project change, checklist item V(c) should indicate that the geology impact from the project is potentially significant.

For purposes of revising the CEQA analysis, we suggest that the Board consider that works which involve any level of infiltration be setback from a canyon rim such that a 45 degree line drawn from the bottom of the basin nearest the canyon rim does not intersect the canyon wall.

Similarly, many formational materials within the watersheds are fossiliferous (Kennedy, 1977). Therefore, given that excavation of detention works could penetrate through surficial soils and into ungraded formational materials, the response to checklist item V(c) should indicate that this impact is potentially significant.⁴ Because the environmental analysis does not discuss impacts to these resources or propose mitigation measures, the environmental analysis is inadequate.

⁴ The “Kennedy Maps” are maps of geologic formations that may contain specific paleontological resources, and are specifically used by planning and land use agencies to identify the potential for significant paleontological resources. Such resources occur within the City of San Diego, and therefore could occur within the Chollas Creek watershed. See *Geology of the La Jolla, Del Mar, La Mesa, Poway, Point Loma, and Southwest Quarter of the Escondido Quadrangles, San Diego County, California*, by Michael P. Kennedy, 1975; and *Geology of National City, Imperial Beach, and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area, California*, by Michael P. Kennedy and Siang S. Tan, 1977.

Response: New analysis on potential impacts to geology and soils was added to the Appendix I Environmental Analysis, Checklist, and Economic Factors in the March 9, 2007 version of the Technical Report, which addresses the concerns in the comment.

Thank you for the comment concerning potential fossil finds. Additional discussion on impacts and mitigation has been added to explanation of the answer to question 20 (Archeological/Historical).

Comment No. 10: Land Use and Planning – Checklist Item IX(b) indicates that the project would not conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for purposes of avoiding or mitigating and environmental effect.” This conclusion is not supported by substantial evidence; substantial evidence supports the opposite conclusion. The following examples are taken from the Chollas Creek watershed; a similar analysis should be made of all watersheds.

First, while the Regional Board’s environmental analysis foresees the need to construct works, because no analysis was done on the required number or location of treatment works, the analysis does not discuss the need for the City to acquire and demolish hundreds of acres of developed land uses in order to construct the works. This is inconsistent with the only listed impact in the draft environmental analysis, where Regional Board staff discusses the impacts from operating a works that detains water – the works has to be constructed before it can be operated. Because the Regional Board did not properly analyze this impact, the Regional Board’s analysis incorrectly concludes that the impacts will be less than significant or that they can be mitigated to below the level of significance. This conclusion is incorrect because it does not consider the following:

Housing

The Housing Element of the City’s adopted General Plan and the position taken by the City Council when declaring a “Housing State of Emergency” both have as a basic objective an increase in the housing supply. According to Appendix E of the Technical Report, low and high density residential uses account for almost 64% of the land uses within the Chollas Creek Watershed. On average, this means that 64% of the 480-1400 acres of land that would be occupied by treatment works (307 to 896 acres) is currently developed with homes. Assuming an average of 10 dwelling units per acre (4,000 square foot lots are common in the watershed), this equates to the loss of 3,070 to 8,960 units. Removal of this number existing dwelling units would decrease the housing supply and is thus in conflict with adopted City policy.

Industrial Land

The Industrial Element of the City’s adopted General Plan states that there is a serious shortage of large parcels suitable for industrial development exists in the City. Related goals and recommendations include:

"Insure that industrial land needs as required for a balanced economy and balanced land use are met consistent with environmental considerations" (p.286)

""Protect a reserve of manufacturing lands from encroachment by non-manufacturing uses." (p. 286)

"As mentioned earlier, in allocating additional land for industrial use it is imperative that sufficient acreage be designated to meet projected needs so that the existing market can operate effectively." (p.287)

The general theme of the existing Industrial element is precisely this shortage of industrial land, high industrial and prices, etc. and how the economy is negatively affected by the non-industrial use of industrial land. The supply increased only slightly since 1979 and has not increased since. In fact it is now at crisis level proportions.

According to Appendix E of Region 9's Technical Report, low and high density residential uses account for 3.12% of the land uses within the Chollas Creek Watershed. On average, this means that 3.12% of the 480-1400 acres of land that would be occupied by treatment works (15 to 43.7 acres) is currently developed with industrial uses.

The removal of housing and industrial acreage from the City's stock in order to build storm water treatment works required to comply with the TMDL would conflict with the City's General Plan and its declared Housing State of Emergency. Therefore, as a result of the project change, checklist item IX(b) should indicate that the Land Use and Planning impact from the project is potentially significant with respect to the loss of residential and industrial lands. The environmental analysis is inadequate because it failed to analyze this impact.

Given that none of the City's land use plans identify storm water treatment works and the nature of detention/infiltration works, the City believes that land use impacts would be significant and suggests that the Regional Board evaluate the City's plans to determine where and the extent to which inconsistencies would result.

Population and Housing – Checklist item XII(c) indicates that there would be no displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere. Within the Chollas Creek watershed alone, the number of dwellings that would be lost as a result of the project change (3,070 to 8,960) should be considered substantial. According to U.S. Census Data, the average dwelling unit in San Diego houses 2.6 people. The loss of 3,070 to 8,960 dwelling units would therefore result in the displacement of 7,982 to 23,296 people. This number of dwellings that would be lost as a result of the project change should be considered substantial. Therefore, as a result of the project change, checklist items XII (b) and XII (c) should indicate that the Population and Housing impact from the project is potentially significant.

The City believes that this is in and of itself a significant impact and suggests that the Regional Board conduct a similar impact evaluation in all of the watersheds that would be subject to the TMDL.

Response: The City based the sizing of the BMP equalization basins on a 3 foot depth, neglecting to analyze deeper equalization basins in order to avoid securing a dam permit (Weston, 2006).⁵ Based on the decision not to secure dam permits, the City then concluded that private property must be condemned and demolished to make room for the large, shallow equalization basins. If equalization basins are required, the City could secure dam permits and design the basins deep enough to avoid condemnation and demolition of private property.

Comment No. 11: Utilities and Service Systems – Checklist item XVI (c) indicates that the project will not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. This is directly contradicted by the Technical Report, and given that the project change causes the additional significant impacts cited above, there is even more reason why this item should indicate that the Utilities and Service Systems impact from the project is potentially significant.

Response: New analysis on potential impacts to utilities and service systems was added to the Appendix I Environmental Analysis, Checklist, and Economic Factors in the March 9, 2007 version of the Technical Report. No long term negative changes to the environment are expected as a result of modifications to retrofit or reconfigure the storm water drainage system. However, because short term construction impacts are anticipated, the determination in the substitute environmental documents is “less than significant with mitigation.”

Comment No. 12: Given that the project change will result in previously undisclosed significant effects, CEQA compliance to date has deprived interested parties the opportunity to provide meaningful comment. In particular, we suggest that opportunity to comment be provided to historic preservationists, housing advocates, industrial developers, and those interested in public policy as it pertains to preservation of San Diego’s shrinking supply of industrial lands.

Response: Although we disagree that TMDL implementation will result in significant environmental impacts from the loss of housing, industrial lands, or cultural resources, two additional 45 day comment periods were provided since the City offered the above comment. All interested persons have had ample time to respond to the changes and new analysis in the Technical Report and Environmental Analysis, Checklist, and Economic Factors documents.

2.1.5 Other Lack of Detail Comments

Comment No. 13: The Regional Board Does Not Fully Comply With Public Resources Code Section 21159. Here, the Regional Board concedes that the provisions of Public Resources Code section 21159 apply. Having made that concession, the Regional Board

⁵ Weston Solutions, Inc. Chollas Creek TMDL Source Loading, Best Management Practices, And Monitoring Strategy Assessment, Final Report, September 2006

does not have the option to ignore the other specific requirements of that section. Nevertheless, the Basin Plan Amendment completely ignores the requirements of subdivision (c) of section 21159, which states:

The environmental analysis *shall* take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and *specific sites*.

PUBLIC RESOURCES CODE § 21159(c)(emphasis added)

Looking at each category of analysis specified in Public Resources Code section 21159, subdivision (c), the Regional Board's analysis is deficient because it fails to consider any of these factors. Thus, the record clearly reflects that the analysis does not satisfy all of the statutory requirements of an environmental analysis under Public Resources Code section 21159.

As respects site specific analyses, Public Resources Code section 21159(c) unambiguously states that an analysis shall take into account a reasonable range of specific sites. A contrary contention is simply an incorrect statement of the law.

Response: The analysis in the March 9, 2007 version of Appendix I, Environmental Analysis, Checklist and Environmental Factors was reorganized to make clear where all the section 21159(c) factors are discussed and considered. For example, a specific sites discussion was added and can be found in section 6 of the Appendix I.

Comment No. 14: The Regional Board has made two different contentions regarding the adequacy of the environmental analysis: (1) that treatment controls are not a reasonably foreseeable method of compliance; and (2) that the Regional Board is not required to do a site specific analysis. The first contention is not factually supported; the second is legally incorrect.

As respects treatment controls, the Regional Board ignores three critical facts in that regard:

- There is no evidence that compliance in all watersheds has been achieved in practice during both wet weather and dry weather conditions by using only non-structural controls;
- The Weston Report concludes, with supporting analysis, that treatment controls will be necessary;
- The Regional Board's April 7, 2006 letter to the State Water Resources Control Board implicitly concedes that treatment controls will be necessary because it states that the use of detention facilities is not a reasonably foreseeable means of compliance "*to the extent suggested by the City.*"

This later fact is particularly interesting. The April 7th letter states:

Detentions facilities located outside of Chollas Creek and existing storm water management features are neither the only means of compliance with the TMDLs nor even a reasonably foreseeable means to the extent suggested by the City. Such facilities are unlikely to be implemented to the degree described by the City due to the associated costs and impacts to housing. Since condemning property is unlikely, the San Diego Water Board was not required to analyze this impact as reasonably foreseeable.

This comment puts the proverbial cart before the horse. The first question in the foreseeability of a means of compliance is whether it is *necessary to achieve compliance*. The Regional Board's comment does not completely refute the contention that treatment facilities will be employed. Hence, detention facilities or treatment works are a reasonably foreseeable means of compliance. The Regional Board's analysis repeats this error in the next sentence; it concludes that the impacts to land use and other resources are not reasonably foreseeable because of the expense. It states that these means of compliance will not be used because of the impact to housing. That begs the question: what impact to housing? Neither Appendix I or Chapter 12 discuss impacts to housing. The April 7th letter concedes that the impacts will occur the impact is not identified in Appendix I or discussed anywhere in Technical Report. This thwarts one of the basic purposes of CEQA because neither the public nor the Regional Board members know the potential housing impact and is a prima facie prejudicial abuse of discretion. The second error is that, having concluded that the impact will occur, it assumes that it will not be significant. CEQA does not require analysis of only significant impacts, it requires analysis to determine the level of impact – once again something that was not done and is a prejudicial abuse of discretion.

Thus, the only facts that are available undercuts the Regional Board's contention that treatment controls are not a reasonably foreseeable method of compliance, which under Public Resources Code section 21159(a), must have its impacts analyzed.

Response: Treatment controls are a reasonably foreseeable method of compliance. For example, the substitute environmental document discusses BMPs such as Austin type sandfilters. What isn't reasonably foreseeable are detention basins and treatment works (requiring private property condemnation) on the size and scale that the City suggests.

The City based the sizing of the equalization basins on a 3 foot depth, neglecting to analyze deeper equalization basins in order to avoid securing a dam permit. Based on the decision not to secure dam permits, the City then concluded that private property must be condemned and demolished to make room for the large, shallow equalization basins. This option is not reasonably foreseeable, when deeper, smaller, albeit more expensive basins can be constructed to avoid the condemnation of private property.

The San Diego Water Board is not required to speculate about potential site specific impacts, because we do not know where the discharger will choose to construct specific BMPs. However, a "specific sites" analysis was added to the March 9, 2007 version of

Appendix I as required by Public Resources Code section 21159(c). The specific sites analysis describes potential BMPs, potential impacts, and mitigation at a specific site in each of the major land use categories.

Comment No. 15: The project description is also a critical component of an adequate environmental document. *See Santiago County Water District v. County of Orange*, 118 Cal.App.3d 818 (1981) (EIR inadequate because of failure to discuss construction of water delivery facilities in project description). The project description in this case is influenced by Public Resources Code section 21159, which provides the *minimum* requirements for an environmental analysis of a rule or regulation that requires the installation of pollution controls.⁶ That statute requires certain state agencies to analyze the following:

- (1) An analysis of the reasonably foreseeable environmental impacts of the methods of compliance.
- (2) An analysis of reasonably foreseeable feasible mitigation measures.
- (3) An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation.

Response: Analysis of the reasonably foreseeable environmental impacts of potential BMPs, analysis of reasonably foreseeable feasible mitigation measures, and analysis of reasonably foreseeable alternative means of compliance, were included in all versions of the substitute environmental document. However, we have reorganized and expanded the material in the March 9, 2007 version of Appendix I to make clear where these factors are discussed.

Comment No. 16: Thus, the methods of compliance are part of the project description because the impacts, mitigation measures, and alternatives to the methods of compliance must be analyzed.

With that in mind, it is easy to see that the project description in this case contained only a cursory discussion of the methods of compliance.

Response: This project is a Basin Plan Amendment to incorporate TMDLs for metals in Chollas Creek. Thus, methods of compliance are not a part of the project description, but must be evaluated for their potential environmental impacts. This evaluation can be found in the Appendix I, sections 4 and 5.

Comment No. 17: The TMDL document is devoid of evidence that suggests that the pollutant reductions required to achieve full compliance with the TMDL can be achieved by anything other than: (1) diversion or (2) detention and infiltration.

⁶ The statute clearly states that these topics are the minimum requirements for an adequate environmental analysis; other impacts must be identified if the impacts are a direct result or a reasonably foreseeable indirect result of the project.

Response: The substitute environmental documents indicate that a suit of BMPs will likely be required to achieve WLAs. However, the San Diego Water Board cannot mandate which specific BMPs will be implemented.

Comment No. 18: Having identified the types of facilities that could be constructed to achieve compliance (diversion and detention/infiltration), Public Resources Code section 21159, subdivision (c) kicks in to specify the details of the analysis that is required in terms of environmental, technical, and specific sites. Thus, issues that must be included to properly address these considerations in the scope of this TMDL include:

1. The “tributary rule,” which subjects all receiving waters within the affected watersheds to the TMDL. The application of this rule in complying with this TMDL creates an interesting overlay in that the TMDL does not define “receiving waters, yet the San Diego County Municipal Storm Water NPDES permit states that in some instances receiving waters and the MS4 are the same;
2. Topography, which prevents BMP works from being built on canyon walls below storm drain outfalls but above receiving waters that are subject to the WQO in the TMDL;
3. The structural BMPs need to capture and treat a very high percentage of storm water due to the large level of loading reduction required by the TMDL; i.e., it is not reasonable to expect that works located far from the storm drain outfalls would, by themselves, meet the TMDL because significant amounts of storm water run into the conveyance system immediately above the outfalls.
4. Locating works some distance from the receiving waters would be infeasible because it would be necessary to construct a new, separate conveyance system to prevent the treated water from mixing with untreated water.
5. The number of control devices that may be required to achieve compliance is a technical consideration in complying with the TMDL. Because the TMDL defines the WLAs without regard to the size of a rain event, loading must be controlled in all storm events. Accordingly, certain assumptions must be made with respect to the size of the storm in order to design structural BMPs that will provide adequate contaminant reduction. Lacking a “design storm,” or information on soil infiltration rates, the Regional Board’s CEQA analysis must include assumptions regarding a design storm size and the acreage of detention/infiltration facilities that would be needed (including any manufactured slopes). Information is available from the City of San Diego, the California Department of Conservation, and the United States Soil Conservation Service on soil infiltration rates that would be necessary in this analysis. For purposes of revising the CEQA analysis, the Regional Board should consider that the Chollas Creek watershed has approximately 816 storm drain outfalls within the City of San Diego to determine the effectiveness of infiltration.

The project description in the CEQA analysis is devoid of any discussion or analysis of these issues, and thus is inadequate because the failure to include this information prevented a meaningful analysis of the impacts of compliance.

The City has previously note that it is reasonably foreseeable that the TMDL implementation could require the City to build a large number of relatively smaller sized works in areas immediately behind a geologically-safe setback above all existing storm drain outfalls which have receiving waters immediately below them. In the Chollas Creek watershed, these works could occupy 1,387 acres – almost 10 percent of the 16,273 total acres in the watershed.

Response: The CEQA does not require the San Diego Water Board to designate a design storm or speculate on the number of control devices that the dischargers might construct as discussed in the response to comment No. 2. The CEQA does not require the San Diego Water Board to speculate on the specific locations where the dischargers might construct BMPs. Where BMPs can be constructed with regard to receiving waters is discussed in the response to comment No 36.

Comment No. 19: The environmental analysis does not analyze all the impacts associated with construction of structural BMPs. Only when a meaningful discussion of the environmental setting is set forth and a thorough project description has been prepared can an adequate analysis of impacts and mitigation measures be prepared. *County of Inyo v. City of Los Angeles*, 71 Cal.App.3d 185 (1977). Here, the Regional Board has put itself in an “Catch-22.” While the Regional Board contends that it is not reasonably foreseeable that treatment controls will be used as a compliance method, it nevertheless analyzed the impacts – albeit poorly – of diversion structures. Having analyzed some of the impacts to diversion structures, the Regional Board must ensure that the analysis is complete, and supported by substantial evidence. CEQA determinations related to quasi-legislative decisions must be supported by substantial evidence. See PUBLIC RESOURCES CODE § 21167.5; *Western States Petroleum Association v. Air Resources Board*, 9 Cal.4th 559 (1995).

Substantial evidence is defined in CEQA as:

For the purposes of this section and this division, substantial evidence includes fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact.

Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate or erroneous, or evidence of social or economic impacts that do not contribute to, or are not caused by, physical impacts on the environment.

Response: New analysis, including mitigation of the construction of treatment controls, was added to the March 9, 2007 version of Appendix I, Environmental Analysis,

Checklist, and Economic Analysis. The expanded analysis addressed the concerns raised in the comment.

Comment No. 20: CEQA requires that cumulative impacts be assessed as part of determining whether a project may have a significant effect on the environment (CEQA Guidelines Section 15064(h)(1). A Lead Agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan (CEQA Guidelines Section 15064(h)(3). However, Section 15064(h)(3) also requires preparation of an EIR (meaning a finding that the cumulative impact is significant) if there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding that the project complies with the specified plan. Cumulatively considerable means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

The initial study checklist indicates that cumulative impacts from the project will not occur, but no rationale is provided for that conclusion. CEQA Guidelines Section 15130(b) describes alternative lists of projects and projections that an agency is required to consider when evaluating significant impacts. Given that the Regional Board has a mandate to adopt TMDLs for receiving waters on the 303(d) list, the checklist should, at a minimum, consider the impacts of this project in the context of impacts that would result from reasonably foreseeable means of compliance with other TMDLs. One glaring omission in this analysis is the fact that the Regional Board has concluded that the Bacteria Project I TMDL, which affects Chollas Creek, will have individual project impacts. There is no analysis to show support the conclusion that the impacts of the Bacteria I TMDL and the Chollas Creek metals TMDL, though less-than-significant individually, will not be cumulatively considerable. See CEQA Guidelines § 15064(h)(3).

With the exception of a checkmark in the “no” box, the CEQA analysis is silent on cumulative impacts. The bacteria TMDL should be integrated with the metals TMDL for purposes of environmental analysis. To the extent that the watershed is listed as impaired for other pollutants, implementing BMPs for these future TMDLs should also be considered.

Response: New analysis, including a discussion on the cumulative impacts of addressing all TMDLs and other water quality projects such as metals, indicator bacteria, diazinon and trash, was added to the March 9, 2007 version of Appendix I, Environmental Analysis, Checklist, and Economic Factors. The expanded analysis addresses the concerns raised in this comment.

Comment No. 21: In addition, the City believes that the watershed could also be listed for pyrethroids, so implementing BMPs for that pollutant should also be considered. Finally, the CEQA analysis should also include an evaluation of TMDL-related impacts in the context of City plans and policies for the watershed.

Response: Pyrethroids are the likely replacement for the pesticide diazinon which was banned from use by the USEPA. Order No. R9-2004-0277 should be amended to require the dischargers to monitor for pyrethroids in Chollas Creek as part of the Diazinon TMDL Implementation Plan. If sample results show impairment, and if a TMDL is developed, the cumulative impact of implementing pyrethroid BMPs would need to be considered with all other TMDLs and water quality projects and programs. Nonetheless, pyrethroid pollution can be addressed through non-structural controls including implementing integrated pest management practices, education and outreach, or through ordinances which regulate and limit the use of pyrethroids. Therefore, no cumulative effects are likely.

The comments did not articulate specific plans and policies the City might change as a result of implementing the TMDLs, or environmental consequences of those changes. We foresaw that changes to the plans and policies would be in a direction to facilitate low impact redevelopment, or increase enforcement of the stormwater regulations. The environmental impacts of such policy change would be those impacts already described in our substitute environmental documents. In addition, we implicitly evaluated the effects of changes to plans and policies by reviewing the effects BMPs would have on Land Use (Appendix I, 8.a.), Public Services (Appendix I, 14.a-f.) and Utilities and Service Systems (Appendix I, 16.a-f.), Recreation (Appendix I, 19.a.) and the cumulative impact the TMDLS might have together with all construction projects in the Chollas Creek Watershed (Appendix I, 21). The City of San Diego may need to modifying its plans and policies to accommodate these TMDLs. Our substitute environmental documents provide the required discussion on the environmental impacts and potential mitigation of activities resulting from the changes to the City of San Diego's plans and policies as a result of these TMDLs.

Comment No. 22: The CEQA analysis and the Technical Report suggest a number of BMPs that can be used to comply with the TMDL. Regional Board documentation should include data references that documents the efficiency of these BMPs in dry and wet weather with respect to removing dissolved metals and bacteria. For example, the City believes that it is misleading to state that dissolved metals loading can be reduced significantly by increased educational efforts.

Response: The environmental documents state that education and outreach can be a *very effective tool* in reducing metals, and do not mislead, as the City of San Diego suggests, that dissolved metals loading can be reduced significantly by increased educational efforts. Information on BMP implementation and effectiveness is readily available and need not be included here in a discussion of impacts and mitigation. Further, new information for new BMPs is currently being generated. When the time comes for the City to actually implement and maintain BMPs, all new and most up-to-date information should be considered.

Comment No. 23: The CEQA analysis must assess the impacts of installing structural best management practices for both TMDLs, including the impacts to land uses that

would be displaced by such installations. The CEQA document improperly limits its description of these impacts to aesthetics, air quality, biological resources, and noise. In addition to outright displacement of existing development for construction of BMPs, it is reasonably foreseeable that BMPs will be built adjacent to existing development. The CEQA analysis should assess the impacts of building BMPs on adjacent foundations and slopes. In its Discussion Paper, the Regional Board indicates that condemnation of land is unlikely. The Regional Board should programmatically evaluate the suitability of publicly owned land in the watershed for BMP construction. Public lands are mapped in Attachment 3.

Response: New analysis was added to the March 9, 2007 version of Appendix I, Environmental Analysis, Checklist, and Economic Factors. The expanded analysis addresses the impacts of installing structural BMPs to Earth, Water, Light and Glare, Land Use, Natural Resources, Risk of Upset, Population, Housing, Transportation, Public Services, Energy, Utilities and Service Systems, Human Health, Recreation, Archeological/Historical, and Mandatory Findings of Significance, in addition to Aesthetics, Air Quality, Biological Resources (Plant and Animal Life), and Noise. In general, all of the BMPs evaluated in the substitute environmental documents are suitable to incorporate into public lands. Site specific analysis must be done by the City to choose the exact location and suitability of BMPs. Because the size of BMPs can be minimized through the types of BMPs selected, and engineering solutions exist to minimize the footprint of structural BMPs, displacement of existing development is not likely to be on a scale that will cause significant environmental impacts.

Comment No. 24: The Board's CEQA analysis suggests that TMDL compliance may be at least partially achieved by preventing storm water and urban runoff from exiting the storm drains through infiltration. However, Attachment 3 includes substantial evidence, in the form of a map prepared by the Natural Resources Conservation Service, that soils in the watershed are mostly impermeable. Attachment 4 (Bauder) provides additional substantial evidence regarding the impermeability of soils in the watershed in the form of a paper which describes how vernal pools were located in the watershed prior to development.

While the City acknowledges that neither the Bauder map nor the Natural Resources Conservation Service map are site specific and that there may be opportunities for infiltration within the watershed, the CEQA document should state a programmatic basis for concluding that infiltration in areas upstream of receiving waters has wide-spread feasibility and is therefore a reasonably foreseeable means of compliance (see Comment 23 below regarding bacterial regrowth and the section entitled "Tributary Rule" below for a discussion on BMP siting constraints). In fact, the CEQA document should include a rationale or list of references that were used to draw conclusions regarding the potential significance of impacts in all issue areas. As written, the checklist is "naked" with respect to issues with which Board staff has found no potentially significant impact.

Response: At this point, all available BMPs are considered potential candidates for implementation. Clearly, the dischargers will not implement infiltration BMPs where soil

conditions are not suitable. The substitute environmental document did not conclude that infiltration BMPs in areas upstream of recreational waters have wide spread feasibility.

Comment No. 25: As a mitigation measure associated with the potential for metals to accumulate in infiltration facilities and then contaminate groundwater, the CEQA checklist mandates regular maintenance and disposal of waste.

This requirement could limit the construction and/or reconstruction of public and private facilities over the infiltration facility. The CEQA document must assess this impact along with a description of how and for what purpose maintenance is expected to occur, and the limits of building or re-building improvements on top of at-grade and below-grade infiltration facilities.

Response: Minimal maintenance is generally required to keep infiltration systems unplugged and functioning. Design and construction limitations must be considered on a case by case basis. Whether or not public and private facilities can be built over an infiltration facility is not an environmental impact of the BMP, because choosing not to build would potentially improve the surrounding environment by creating or improving habitat, reducing traffic, etc.

Comment No. 26: The failure of the CEQA analysis to address these issues leaves more questions that answers, including:

What is the potential for pollutants to travel through an infiltration facility and contaminate adjacent native soils or groundwater?

Response: The potential for groundwater contamination is not considered significant as discussed in the response to question 3.g of the Checklist. Metals that are removed from stormwater runoff by infiltration BMPs are typically inorganic and insoluble. They are positively charged and bind to fine and organic particles. Once bound, the metals have very low leachability. Most metals are less than 10 percent leachable. Lead has been typically less than 5 percent leachable. Zinc, in some cases is 20-30 percent leachable.

Metals that are removed by infiltration BMPs typically are retained in the upper 2 to 5 inches of soil or sediment. Typically, metals levels returned to background levels or non-detectable levels below about 5 inches depth.

There is a potential (given enough time) that metals may accumulate in the upper 2 to 5 inches of soil to levels that might be toxic to humans, plants, and/or animals. The mitigation measures that could be implemented would include proper and adequate cover materials that would limit the access to the soil that is being affected by metals in stormwater. Options could include planting grass or iceplant, covering with gravel or cobblestones, or covering with compost as a mulch. Any of these cover options would reduce the potential for exposure to soils with elevated metals concentrations. The added benefit that compost might have is a higher affinity to bind with metals (due to its high organic content), and that placement of compost on the soil surface will capture the

metals before they bind with the soil. As metals concentrations build, the mulch could be removed and replaced. Other options for minimizing exposure to soil could include putting the infiltration BMP underground or indoors, and/or restricting access. Finally, the metals-laden, top 2 to 5 inches of soil could be removed, disposed of and replaced.

The information on metals laden soils, above, was added to the discussion of the answers to questions 4.e, 5.d, and 17.a of the Checklist in Appendix I.

Comment No. 27: What is the potential for pollutants which have reached groundwater to reach receiving waters in concentrations in excess of the WLAs?

Response: The potential for groundwater contamination is not considered significant as discussed in Appendix I question 3.g. Therefore, groundwater is not a likely pathway for metals to reach surface water.

Comment No. 28: Will the Regional Board have subsequent regulatory authority over the construction of these facilities?

Response: The San Diego Water Board would have subsequent regulatory authority over facilities only if WDRs (or waivers) are required for discharges from a facility, or if a 401 certification is required to construct the facility.

Comment No. 29: If not, can mitigation be assured?

Response: No. This is the reason for including a statement of overriding considerations in the Determination section of Appendix I.

Comment No. 30: If mitigation cannot be assured, shouldn't this potential impact be considered significant?

Response: No, because mitigation is available for every significant impact.

Comment No. 31: Is there a concentration of any pollutant above which urban runoff cannot be infiltrated? If so, does urban runoff with the Chollas Creek watershed exceed this concentration at any time?

Response: Not that we are aware of. This will need to be addressed on a case by case basis if and when the BMP is designed and implemented.

Comment No. 32: The Regional Board should conduct a programmatic level of environmental analysis for the metals and bacteria TMDLs instead of deferring further analysis to the City. Issues that should be addressed are described in Attachment 1 and should also include impacts to public lands if the Regional Board believes that it is reasonably foreseeable for storm water to be pumped to public lands for infiltration as described in Attachment 3.

Response: The San Diego Water Board has conducted an adequate programmatic level environmental analysis as required by the CEQA. Attachment 1 were addressed by the San Diego Water Board in the Discussion Paper (the City's Attachment 2). Attachment 3 makes the argument for large scale detention and treatment BMPs which would include condemnation of private property. Because the size of BMPs can be minimized through the types of BMPs selected, and engineering solutions exist to minimize the footprint of structural BMPs, we disagree that the condemnation of private property at the scale envisioned by the City is likely. The environmental analysis discusses the potential environmental impacts of a suite of BMPs, whether or not constructed on public land.

Comment No. 33: The Regional Board's CEQA analysis should base its impact analysis on the delta between existing conditions on the ground and future conditions. It is not appropriate to reduce the delta by establishing as the existing conditions baseline an imaginary situation.

Response: The analysis is based on existing conditions as the baseline for assessing change, and cannot, per the CEQA guidelines, include speculation.

2.1.6 Tiering

Comment No. 34: The City maintains its position that the CEQA analysis contained in the technical report is inadequate. The environmental analysis begins with a discussion of the standards that apply to the Basin Plan amendment. The document states that the Regional Board has specific obligations under the Public Resources Code because the TMDL establishes performance standards or treatment requirements, and sets out an abbreviated list of those specific requirements. *See* Technical Report at 85. The document goes on, however, to state that the Regional Board "method of analysis" is similar to "tiering" and "limited its analysis in this document to the broad environmental issues at the Basin Plan amendment "performance standard" adoption stage." The documents then goes on to opine that "the Regional Board is not required, at the Basin Plan amendment adoption stage, to evaluate environmental issues associated with specific projects to be undertaken later to comply with the performance standards." *Id.* The document contains no citation to legal authority for these propositions. This is because these contentions are incorrect statements of the law.

The TMDL and environmental analysis do not satisfy the criteria for tiering. When applying statutes, specific statutes control over general. *See Cavalier Acres, Inc. v. San Simeon Acres Community Services District*, 151 Cal. App. 3d 798 (1984) (Where there is a specific provision requiring community services district to increase rates via ordinance, that specific statute controls over general provision allowing public entities to increase rates via resolution).

Here, the general provisions relate to tiered CEQA documents. *See* PUBLIC RESOURCES CODE § 21093 and 21094. The environmental analysis attempts to justify giving short-shrift to the topics required by Public Resources Code section 21159(c) under the guise of tiering; this violates the rule that specific provisions control over the general. Moreover, there are other problems with the Regional Board's reliance on the tiering provisions.

First, both Public Resources Code section 21093 and 21094 refer to the preparation of an environmental impact report as the first tier document. As the Regional Board readily notes, the environmental analysis for the basin plan amendment is **not** an EIR. *See Remy, et al, Guide to the California Environmental Quality Act, 10th ed., at 495* (The definition of tiering “suggests that tiering must commence with the preparation of an EIR.”) Thus, there is no authority for the proposition that the Regional Board may use a substitute document as a first tier CEQA document.

Further complicating this aspect of the Regional Board’s environmental analysis are the specific provisions of CEQA Guidelines section 15253, which governs the use of an EIR substitute by a responsible agency. Specifically, subdivision (a) states a substitute document shall be used by another agency “granting an approval **for the same project** where the conditions in subdivision (b) have been met.” Subdivision (c) of that same Guidelines section amplifies this limitation, stating:

Where a certified agency does not meet the criteria in subdivision (b), any other agencies granting approvals **for the project** shall comply with CEQA in the normal manner.

Hence, the CEQA Guidelines make clear that the only permissible uses of a substitute document are with respect to that project, and not with subsequent related projects. Accordingly, it is inappropriate to treat the Basin Plan Amendment environmental analysis as a “first tier” document because no second tier document can legally flow from a “first tier substitute document.”

It is also important to note that under CEQA Guidelines section 15253 subdivision (b), it is a responsible agency that may use the substitute document for subsequent approval of the project. Responsible agencies are “public agencies other than the lead agency which have discretionary approval power over the project.” CEQA Guidelines section 15381. The only other California agency that has discretionary approval power over the Basin Plan amendment is the State Water Resources Control Board. Neither the Regional Board nor the State Board will issue subsequent approvals related to this project that will require CEQA compliance. Hence, the authorization in CEQA Guidelines section 15253 does not apply to any subsequent activity that will involve site-specific impacts or any of the other analyses the Regional Board contends may be deferred until the second tier projects are implemented. Accordingly, the notion that the TMDL environmental analysis will serve as a first-tier analysis is nonsense.

In the April 7th letter, the Regional Board cites CEQA Guidelines section 15253 for the proposition that it need not change its CEQA processes to meet the needs of other agencies. This comment misses the point: if the analysis cannot be used by other agencies because it is not an adequate document for that purpose, then the Regional Board cannot justify its cursory analysis by contending that these agencies will tier off of the Regional Board’s document. If the document is inadequate for use by other agencies,

those agencies have to start from scratch and the Regional Board's document is of no value.

Second, Public Resources Code § 21093 states that the purpose of tiering is to expedite the construction of housing and other development projects by eliminating repetitive environmental review. Here, the project is not a development project; it is the imposition of performance or treatment standards. Thus, this activity does not fall within the type of projects the Legislature sought to expedite through tiering, and accordingly, there is no legal basis for the Regional Board to rely upon these principles in analyzing the impacts of the TMDL.

Regional Board staff has, in the past, stated that it need not conduct a detailed analysis because it contends that the TMDL environmental analysis functions as a "first tier document," or would be speculative. These statements are inaccurate because:

- Tiering does not excuse the lead agency from adequately analyzing the reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration." 14 C.C.R. Section 15152(b).
- Lead agencies cannot hide behind an inadequate analysis and leave it to the public to produce the necessary substantial evidence regarding adverse impacts. *Gentry v. City of Murietta*, 36 Cal.App.4th 1359, 1379 (1995). While foreseeing the unforeseeable is not possible, the agency must find out and disclose all that it reasonably can. 14 C.C.R. § 15144.
- To claim that an impact is speculative and terminate a discussion requires analysis – it does not excuse a failure to investigate and analyze. *See Marin Municipal Water District v. KG Land California Corporation*, 235 Cal.App.3d 1652 (1991) and 14 C.C.R. Section 15145. The record does not support a finding that the Regional Board has conducted this investigation.

Response: Appendix I, as revised in the March 9, 2007 version, does not equate the substitute environmental documents with a Tier I EIR. The appendix states that the San Diego Water Board has considered the pertinent requirements of state law,⁷ and intends the analysis to serve as a tier 1 environmental review. The substitute environmental documents are not intended for others to tier off of, however, municipal entities can utilize all information included in the substitute environmental document when developing their own environmental documents.

2.1.7 Alternatives Analysis

Comment No. 35: The alternatives analysis is inadequate. The State Water Resources Control Board regulations for complying with CEQA require a substitute document to contain an analysis of reasonable alternatives to the proposed action. Here the only alternatives analyzed are the "no action" alternative, and the "reference system approach." This is an inadequate range of alternatives. *See Citizens of Goleta Valley v.*

⁷ Public Resources Code section 21159 and 14 CCR section 15187

Board of Supervisors, 52 Cal.3d 553 (1990)[Requiring a reasonable range of feasible alternatives.

Here, the Regional Board has failed to explain why to the extent that the implementation plan is part of the project, whether a longer compliance schedule will result in pilot project technology becoming mainstream technology that can be deployed and reduce certain impacts.

The City has previously submitted comments on this proposal, including the Regional Board's efforts at CEQA compliance; this letter and its attachment addresses many of the issues previously raised and includes even more substantial evidence regarding the environmental impacts of the project. The City's most recent correspondence on TMDL was addressed to the State Water Resources Control Board and is dated January 6, 2006. That letter and Board staff's April 7, 2006 responses, a Discussion Paper entitled "Adequacy of the Environmental Review Documents for the Chollas Creek Metals TMDLs", April 6, 2006) are included as Attachments 1 and 2 so as to make them part of the administrative record for the current proceedings. As required by the State Water Resources Control Board's regulations, the City respectfully requests written responses to our January 6, 2006 letter (to the extent responses were not provided in Attachment 2) and this letter.

CEQA requires a discussion of project alternatives if the proposed project would result in potentially significant impacts, and the State Water Resources Board regulations (23 C.C.R. § 3777(a)(2) also requires the Regional Board's substitute documents to contain "reasonable alternatives to the proposed activity." Why does the CEQA analysis for the metals TMDL not include a discussion of project alternatives given that the CEQA analysis for the bacteria TMDL does include the discussion?

If the Regional Board includes a discussion of project alternatives in the metals TMDL, it should use the implementation protocol described as the City's preferred alternative in Attachment 3.

Response: The alternatives analysis was expanded in the March 9, 2007 version of Appendix I. Included in the expanded alternatives analysis are the no action alternative, the water quality standards action alternative, the 10-year compliance schedule for metals load reduction only alternative, and the 20-year compliance schedule for metals, bacteria, diazinon, and trash reductions alternative, the latter of which evaluates the protocol described in attachment 3, (i.e., the Weston Report).

A complete response to the City's January 6, 2006 letter was provided in the San Diego Water Board's Discussion Paper (the City's Attachment 2), which is part of the case file.

2.1.8 Tributary Rule

Comment No. 36: *Inappropriate application of the tributary rule.* The TMDL requires load reductions prior to discharge into any receiving water, including open concrete

channels. Under this interpretation, the Regional Board would no longer provide an incentive to replace concrete channels with vegetation because the vegetation would not address the non-compliance of waters upstream of the revegetation site.

Would compliance with the metals and bacteria TMDLs be achieved if storm water discharged from a storm drain outfall exceeds the WLA if that water is treated to meet the WLA further downstream? In other words, does the WLA need to be met in receiving waters immediately below storm drain outfalls or somewhere further down the watershed? If the latter, how much further down?

The CEQA document should describe the reasonably foreseeable alternative in-stream BMPs that are consistent with the beneficial uses and [representative] natural aquatic ecosystems of the creek and describe the impacts of building and operating such BMPs. The City is unaware of any in-stream BMP that would achieve the WLAs and meet these criteria.

The City believes that the above statement from the "Discussion Paper" is contrary to other statements that have been made by Regional Board staff with regard to the application of the tributary rule and the resultant need to site BMPs upstream of storm drain outfalls. The City has relied on the following statements for its understanding of this issue:

Email from Julie Chan dated March 10, 2006:

The tributary rule ascribes to a tributary, on which surface water quality standards have not yet been established, the water quality standards applicable to the downstream receiving water...Since the states are required to adopt water quality standards for tributaries, the San Diego Water Board has taken the approach that standards applicable to the downstream receiving water will be applied to the tributary in the absence of site specific standards. The Basin Plan has a footnote which accomplishes this purpose. The footnote states: "Beneficial uses apply to all tributaries to the indicated water body, if not listed separately".

Email from John Robertus dated May 3, 2006:

I think that you can resolve the matter by considering that the Basin Plan designates both beneficial uses and water quality objectives by hydraulic units, areas and sub-areas. These apply to all waters of the state within each respective HU, HA and HSA. There are no "upstream, downstream or in-between waters".

As for the reduction of pollutants, the industrial stormwater (including construction) discharges must be reduced to BAT/BCT, the MS4 discharges must be reduced to MEP with allowances for an iterative process, and the TMDL pollutant reductions must be accomplished in accordance with the TMDL Basin Plan amendment which is independent of MEP or BAT/BCT. I believe that the Regional Board could also

require that all water quality objectives be met immediately in receiving waters if it were to choose to do so. However, this is not what is expected at this time.

As for BMPs in waters of the state, you are correct that we do not embrace any BMPs located within waters of the state. Rather, we expect that pollutants will be reduced appropriately prior to the discharge into such waters. In some cases we have allowed projects that have "extended" the MS4 infrastructure to collect, divert or treat such discharges. Some of these are sites of CBI projects and others are just local pilot projects. In each case there was a case-by-case decision. With respect to "treatment wetlands", I can make no case for allowing assimilative capacity of waters of the state to be used as "treatment" to remove pollutants discharged from a MS4. Perhaps some day there will be mixing zones or some other construct, but this does not exist today. There can be treatment wetlands constructed to function as a pollutant reduction method anywhere except in the waters of the state.

Chollas Creek Dissolved Metals TMDL Technical Report (July 25, 2006, page 3)
These loading capacities, which are equal to the Numeric Targets, will apply to the entirety of Chollas Creek and during all times of the year. Regulated **discharges** [emphasis added] from each of the land uses identified in the Source Analysis portion of this TMDL will not be allowed to have dissolved metals concentrations that causes [sic] in-stream waters to exceed the loading capacities.

Chollas Creek Dissolved Metals TMDL Appendix M (July 25, 2006, page 21):
The 2002 List of Water Quality Limited Segments lists the lowest 1.2 miles as the estimated size effected [sic]. To ensure restoration of water quality standards in this portion of the creek, all upstream sources need to meet the Wasteload Allocations of this TMDL. This is consistent with the Diazinon TMDL, adopted in 2002. Wasteload Allocations were applied to **discharges** [emphasis added] throughout the entire watershed when only the lowest 1.2 miles was listed as impaired.

Chollas Creek Dissolved Metals TMDL, Appendix I (July 25, 2006, page 15)
The implementation of these TMDLs will result in improved water quality in Chollas Creek **and it** [sic] **tributaries** and will not have significant adverse effects to the environment (emphasis added).

Bacteria-1 TMDL, Technical Report (August 4, 2006)
Persons whose point source discharges contribute to the exceedance of WQOs for indicator bacteria (as discussed in section 10) will be required to meet the WLAs in their urban runoff before it is discharged from MS4s to receiving waters.

The following statements indicate a strong preference against diverting storm water or urban runoff from receiving waters for treatment, again leading to the unavoidable conclusion that Wasteload Allocations must be met in the receiving waters immediately below storm drain outfalls:

Chollas Creek Dissolved Metals TMDL, Appendix I (July 25, 2006, page 13)

Since in-stream diversions should not be used as BMPs, there should be no adverse impacts on aesthetics resulting from construction of concrete-lined basins or treatment facilities within the creek.

Bacteria-1 TMDL, Appendix R (August 4, 2006)

In-creek diversions should not be used as controls, therefore, there should be no adverse effects on aesthetics resulting from construction of concrete-lined basins or treatment facilities within the creeks.

Finally, since the CEQA document does not describe biological impacts of building structural BMPs in canyons or receiving waters, it was presumed that such construction would not be allowed.

In order to provide an adequate project description under CEQA, the metals and bacteria TMDL documentation should be explicit about where the Wasteload Allocations must be met. In order to provide an adequate environmental setting under CEQA, the metals and bacteria TMDL documentation should, at a programmatic level, describe where the MS4/receiving water interface is located. Based on the geography and topography of the watershed, the City has concluded that “Waters of the State” and receiving waters generally extend upstream to locations immediately downstream of storm drain outfalls throughout the watershed.

Location of BMPs and Tributary Rule

City comments have previously indicated that the bacteria and metals TMDLs will require the construction of storm water treatment facilities on currently developed private property. In its document entitled “Adequacy of the Environmental Review Documents for the Chollas Creek Metals TMDLs” (April 7, 2006), Regional Board staff writes that:

“the City [improperly] interprets the tributary rule to require strict attainment of the most stringent downstream water quality objectives throughout Chollas Creek and its tributaries”.

Further, above-referenced discussion paper states that,

[w]hile all waters tributary to Chollas Creek should be of a quality consistent with the attainment in Chollas Creek of the water quality objectives necessary to support the beneficial uses designated for Chollas Creek and San Diego Bay, this policy does not, necessarily, preclude the installation of pollutant reduction BMPs in Chollas Creek or its tributaries. Source control is the preferred means of compliance with the [dissolved metals] TMDLs. However, in-stream structural BMPs may be reasonable, depending on the location and type of BMP, provided that they are

consistent with the beneficial uses of the creek and the natural aquatic ecosystem characteristics of the creek”.

Response: TMDLs allocate wasteloads to MS4 discharges, as opposed to receiving waters. For this reason, discharges from MS4s are required to meet WLAs. The WLAs are designed to restore water quality in receiving waters as defined by applicable water quality objectives. Since the San Diego County municipal storm water requirements (Order No. R9-2007-0001 or its successor) will be used to implement the TMDLs at issue, the term “receiving waters” in this case refers to waters of the United States.

The conditions under which MS4s discharge to receiving waters are exceptionally diverse. This makes it difficult to define a precise “bright line” of demarcation for determining when MS4s end and receiving waters begin that will be applicable in every case. In fact, such determinations are often made on a case-by-case basis (such as with the 401 Water Quality Certification Program). While case-by-case determinations will continue to be necessary in many instances, generally speaking, where an outfall exists, receiving waters extend upstream to the outfall location.

The issues of where WLAs must be met and where receiving waters begin are important for determining where to locate BMPs. The San Diego Water Board’s typical practice has been to discourage implementation of BMPs in receiving waters. For example, Order No. R9-2007-0001 states that “urban runoff treatment and/or mitigation must occur prior to the discharge of urban runoff into a receiving water” (Finding D.10). However, the issue of BMP location ultimately depends upon site specific circumstances and how compliance with WLAs is to be assessed.

There are many different monitoring approaches that the San Diego Water Board can use to determine compliance with WLAs. For example, the Chollas Creek diazinon TMDL, Order No. R9-2004-0227 requires monitoring two stations in Chollas Creek for compliance with the diazinon WLA. This relatively simple compliance monitoring was justified because the principal control, namely banning the pesticide, had been accomplished, and water quality in Chollas Creek was meeting the interim TMDL milestone at the time the new MS4 requirements were adopted. In the extreme, the San Diego Water Board could require monitoring at every storm drain outfall, and at numerous locations in Chollas Creek and its tributaries. The compliance monitoring the San Diego Water Board likely will require will be something between these two approaches, and may depend on the level of dischargers’ efforts to reduce pollutant sources and loading before the San Diego Water Board issues implementing orders.

Another compliance assessment issue to be considered is how monitoring data are analyzed. Again, a wide range of approaches are available to the San Diego

Water Board to determine compliance. For example, a regression approach to analysis of monitoring data can be used, where the monitoring data must exhibit a certain regression slope over time to show compliance with WLA. Other approaches, such as averaging of data, can also be used if appropriate. For example, in making water quality assessments for listing and delisting purposes, the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* states that "samples collected within 200 meters of each other should be considered samples from the same location."

These different monitoring and compliance assessment methods may provide MS4 dischargers with the opportunity to implement a wide range of strategies for complying with TMDL requirements, including strategies that rely on restoration of receiving waters. The methods to be used to determine compliance will be developed following adoption of TMDLs, as municipalities develop urban runoff management plans that will implement MS4 requirements and TMDLs.

Finally, we assumed that structural BMPs could be built anywhere in the watershed, and did not exclude any land type from our analysis of potential impacts.

2.1.9 Dry Weather

Comment No. 37: *The TMDL requires the City to maintain dry weather flows.* This is contrary to Municipal Permit Discharge Prohibition B.2, requires the MS4 operators to "effectively prohibit" these human-generated, flows. The Regional Board should explain how it sees the requirement to maintain dry weather flow in an urbanized area is consistent with the discharge prohibition in the MS4 permit. The City believe that these requirements are inconsistent and is one reason why the conclusion that there will be less-than-significant impacts to biological resources is unsupported by substantial evidence.

The TMDL requires the City to maintain dry weather flows. This is contrary to Municipal Permit requirements which seek to eliminate these human-generated, flows and would force the City to construct costly low-flow treatment systems in addition to parallel systems for wet weather flows.

Either compliance option, diversion via infiltration or treatment, will reduce sediment loading into Chollas Creek. The CEQA document should assess this impact.

The City estimates that dry weather flows exit from approximately 528 of the 800 storm drains outfalls in the watershed (66%). These dry weather flows support wetland vegetation in Chollas Creek and its tributaries that probably would not exist but for the flows and probably did not exist prior to urban development of the watershed. Eliminating these flows by infiltrating them would eliminate certain receiving waters and the associated aquatic and wetland life. Accordingly, the CEQA documents for both TMDLs require as mitigation the return of "treated water into the creek in the same location, and at the temperature and flow velocity to maintain the creek's hydrology (page 89 of the metals TMDL Technical Report, page 14 of the metals TMDL

environmental checklist and page R-14 of the checklist for the bacteria TMDL). Assuming that the intent is not to discharge treated, potable water from the existing drinking water distribution system into receiving waters, the construction of urban runoff treatment facilities is required. Moreover, to prevent bacterial regrowth in the MS4 downstream of the treatment facilities, the treatment facilities must be built immediately above the storm water outfalls.

The mitigation measure which requires maintaining the hydrology of receiving waters and wetlands also necessitates the construction of treatment facilities for dry weather flows (immediately upstream of the storm drain outfalls to minimize the potential for bacterial regrowth above the outfall). Total compliance via infiltration is therefore infeasible. As an alternative to treating all flows, the requirement to maintain dry weather flows in receiving waters sets up another reasonably foreseeable means of compliance: that the City will treat dry weather flows and return them to the creek where they currently flow, that the City will infiltrate wet weather flows where it is practicable, and that the City will treat wet weather flows where it is impracticable. The CEQA document must address the impact of this reasonably foreseeable means of compliance.

Should treatment facilities designed to maintain creek hydrology and wetlands be designed to retain existing hydrology/wetlands (as affected by development) or should treatment facilities be designed to discharge water to mimic pre-development conditions? If the latter, what are the characteristics of pre-development hydrology and wouldn't this have an adverse impact on wetland vegetation that is dependent upon dry weather urban runoff?

The City is unclear as to the Board's overall policy with respect to hydrology and wetlands that are present only because of human-induced dry weather flows. Which does the Board see as more important – the maintenance of post-development hydrology/wetlands or the reduction of [clean] dry weather flows?

Response: As revised in the March 9, 2007 version, the substitute environmental documents make clear that the TMDLs do not require the City to maintain dry weather flows. Nowhere in the Technical Report does it state that TMDL implementation requires maintenance of the current flow regime. Ordinances prohibiting dry weather nuisance flows are evaluated as a reasonably foreseeable method of compliance.

2.1.10 Aerial Deposition

Comment No. 38: Page 57 of the Chollas Creek Dissolved Metals Technical Report states that the Regional Board's model estimated the potential load of each metal from the open space land use (9.73% of the Chollas Creek watershed, or over 1,583 acres) to be 0% of the total existing load for each metal. Contributions of loading from open space land uses in comparison to other sources were found to be insignificant. Page 59 of the Technical Report and the Regional Board's "Discussion Paper" conclude that Chollas Creek receives significant contributions of copper, lead, and zinc but that this source must travel through the MS4 and thus have already been accounted for [in the WLA for

the MS4). The City has recently undertaken an aerial deposition study and interim results are presented in Attachment 4. In general, the amount of aerial deposition in the watershed is significant. Open spaces adjacent to Chollas Creek and its tributaries drain into receiving waters without first entering the MS4. In a future compliance scenario where wet weather flows in the MS4 above storm drain outfalls are diverted for infiltration, the only flows in the creek would be those from the adjacent open spaces. Given that the metals TMDL is concentration-based, this loading could result in non-compliance with the TMDL. The Regional Board's "Discussion Paper" concludes that "a very small percentage of the land area drains directly into Chollas Creek via sheetflow from canyon walls. What is this determination based on?"

The City has submitted substantial evidence that concentrations of zinc, lead, and copper in runoff from open space lands will be significant. What is the reasonably foreseeable means for TMDL compliance given that runoff containing aeriually deposited pollutants from open space lands that drain directly into receiving waters (never enter the MS4) will exceed the zero WLA for these lands?

Response: The City is not responsible for pollutants that enter receiving waters outside the control of its MS4. The "very small percentage of land area statement" was estimated based on a review of aerial maps.

The TMDL modeling predicted zero percent loading from open space. The canyons and stream banks are open space, and therefore the metal loading coming from storm water draining these areas will likely contribute no loading.

2.1.11 Statement of Overriding Considerations

Comment No. 39: Similar to how the Los Angeles Region revised its CEQA analysis for the Los Angeles River Trash TMDL, the San Diego Regional Board must address all the potentially significant impacts associated with building and maintaining the BMPs needed to comply with the metals and bacteria TMDLs.

In its' Discussion Paper entitled "Adequacy of the Environmental Review Documents for the Chollas Creek Metals TMDLs" (April 6, 2006) Regional Board staff reiterates its' position that it is not obliged to provide any additional level of detail with regard to the impacts associated with building BMPs to comply with the TMDLs. Regional Board staff position is that identifying the specific projects that might be implemented is speculative at this time and that future CEQA documents prepared for specific projects are the responsibility of the City. While the City agrees that it will likely be required to prepare additional CEQA documentation in the future in order to comply with the TMDL, it disagrees that the Regional Board has prepared an adequate analysis of the impacts associated with compliance with the TMDLs

The City believes that the Regional Board has improperly deferred additional environmental analysis. The City believes that the Regional Board has not defined the TMDLs with enough specificity to conduct a "programmatic" level of analysis of the

reasonably foreseeable means of compliance, particularly with respect to required load reductions (which dictate the types of BMPs required), the tributary rule, and prohibitions on in-stream diversions (which dictate the possible locations of the BMPs), and failure to develop a design storm (which leaves open the acreage requirements of the BMPs). In accordance with Section 15187 of the State CEQA Guidelines this analysis could utilize numeric ranges and averages when specific data is not available. Section 15146 of the CEQ Guidelines addresses the level of specificity that is required for projects such as the TMDLs. For CEQA purposes, adoption of the TMDLs by the Regional Board is comparable to adoption of a General Plan or Community Plan by a jurisdiction's legislative body with land use powers. What is required is the production of information sufficient to understand the environmental impacts of the proposed project. The current analysis does not fulfill this requirement. The City further believes that unless mitigation to reduce potentially significant impacts to a level below significance is "guaranteed", the analysis must conclude that the impacts are significant (CEQA Guidelines, Section 15152(f)(3)). In that case, "Findings" and a "Statement of Overriding Considerations" must be adopted.

To the extent that the CEQA analysis indicates that "[i]mpacts **may** be mitigated (e.g., Chollas Creek Dissolved Metals TMDL, Appendix I, pages 13 and 15, emphasis added) and not that they **will** be mitigated, the analysis should conclude that the impacts are significant. See also page 6 of the Regional Board's "Discussion Paper" which indicates that it is not clear whether impacts to aesthetics would be mitigated.

If it finds certain impacts to be significant, does the Regional Board intend to adopt "Findings" and a "Statement of Overriding Considerations" for either the metals or bacteria TMDL?

Paragraph 19 of Appendix J, the proposed resolution, contains a section that purports to be a statement of overriding considerations required by CEQA when a project may have a significant, unmitigated impact to the environment. Appendix I does not identify any significant, unmitigated impacts. Why does the resolution contain a statement of overriding considerations if the CEQA analysis does not identify a significant, unmitigated impact?

Response: Although the San Diego Water Board found that all potentially significant impacts could be reduced to less than significant with mitigation, we nonetheless incorporated a finding and statement of overriding consideration in the Technical Report and Resolution. It was incorporated because the San Diego Water Board may not have approval authority over specific implementation projects and therefore, cannot ensure that mitigation will be incorporated when the projects are built.

We disagree that we have improperly deferred environmental analysis. The substitute environmental documents contain adequate information and analysis for the public to understand the potential adverse environmental impacts of the project. The tributary rule and where the BMPs can be located are discussed in the response to comments No. 36. The design storm issue is addressed in the response to comment No. 2.

2.1.12 Other Specific Comments

Comment No. 40: Types of BMPs Attachment 3 to this letter is a report that the City has had prepared by Weston Solutions. This report provides substantial evidence that the City will have to undertake a massive public works program in order to implement the metals and bacteria TMDLs and that the implementation program has the potential to result in significant environmental effects. The Weston report clearly indicates that the only ways that the load reductions for bacteria and metals required by the TMDL in at least portions of the Chollas Creek watershed can be achieved are by 1) preventing urban runoff and storm water from exiting the 800 storm drains outfalls in the watershed or by 2) treating the water using advanced technologies. The Regional Board response to previous City comments on this issue is that the City is wrong with regard to the percent of load reduction required. Since the TMDL is a concentration-based WLA that applies to all waters of the state in the watershed, applying an average concentration to the required load reductions is scientifically correct. If the Regional Board is going to persist with this contention, the Technical Report should contain a detailed analysis as to how a discharger complies with a concentration-based WLA using average reductions. Further the use of chlorine, or other disinfectants, ozone or ultraviolet light will likely be necessary to achieve the Wasteload Allocations proposed in the Bacti-1 TMDL.

Please clarify how compliance with the TMDL will be measured in terms of percent reduction of dissolved metals. The City's understanding is that an "average 50% reduction" would not result in compliance. Expressing compliance as an average 50% reduction is misleading.

Response: The City has misinterpreted the Regional Board's previous response. Ultimately the City needs to meet the CTR criteria in Chollas Creek. That would mean reductions as high as 98 percent and as low as 0 percent depending on location. The concentration data for Chollas Creek do not support the City's assertion and comment that dissolved copper is 88.5 percent, dissolved lead is 98.7 percent, and dissolved zinc is 77.4 percent. Concentrations of these metals are not uniformly high throughout the watershed. Our statement that the average reduction required is closer to 50 percent is not a performance standard for compliance with the metals TMDLs. Our comment was a reasonable characterization of the overall watershed.

Comment No. 41: The City needs to know how exceedances of the TMDL will be evaluated by the Regional Board. Given the above discussion regarding the Tributary Rule, the City is operating under the assumption that a discharge in excess of the Wasteload Allocations at any one of the approximately 800 outfalls in the watershed would warrant a Notice of Violation. The TMDL Technical Report should explicitly state whether a Wasteload Allocation exceedance at any single outfall would warrant a Notice of Violation and, if not, how non-compliance would otherwise be assessed? For example, if monitoring showed concentrations of zinc, copper, or lead in excess of the Wasteload Allocations at 100 outfalls during one storm event would the Board have the basis for issuing 100 Notices of Violation or one Notice of Violation?

Response: A discussion of possible enforcement scenarios is beyond the scope of this TMDL project. Please see the response to comment No. 36 for a general discussion of possible compliance monitoring approaches.

Comment No. 42: The compliance schedule proposed by the Regional Board demands a 50% reduction in exceedances of Wasteload Allocations in Year 7. The City interprets this to mean that either 400 storm drain outfalls must have no exceedances or that none of the 800 outfalls may have exceedances more than 50% of the time (or some combination thereof) by Year 7. Shouldn't the compliance schedule be driven by load reductions rather than the percent reduction in exceedances? Please provide examples how compliance would be assessed.

The City noted in May, 2005 that the TMDL is written such that load reduction of 88.5% for copper, 77.4% for zinc, and 98.7% for lead is required. The City bases this contention on the historical maximum concentrations at the mass loading station. In its response, the Regional Board replied that the City is incorrect and that the "average reduction required is closer to 50%". Since the TMDL uses a concentration-based WLA that applies to all waters of the state in the watershed, applying an average concentration to the required load reduction is not scientifically correct. The historical range of reductions required to meet the WLA, based on mass loading station data, are from 3% to 87% for dissolved copper and from 14% to 92% for dissolved lead. While the reductions needed in different subwatersheds will vary, it is the City's understanding that the WLAs must be met in receiving waters at any time. To meet the concentration-based WLA reductions of greater than 50 percent would, therefore be needed where these maximum concentrations are observed.

Response: Data were inadequate to calculate mass loading of the metals, therefore the compliance schedule could not be based on load reductions. Although compliance assessment is beyond the scope of these TMDLs, either scenario posed by the City of San Diego is plausible for assessing compliance. Please see the response to comment No. 40 concerning our statement regarding an "average 50 percent load reduction."

Comment No. 43: The City believes that the Regional Board has significantly underestimated the cost of implementing the metals TMDL. See Attachment 3 and our previous letter for additional detail. In its discussion paper, Regional Board staff erroneously indicated that the City estimate for compliance is \$1 billion for a 50-acre area. The City's estimate was \$1 billion for the entire watershed. Please refer to Attachment 3 for more detailed cost estimates.

Response: Correction acknowledged. The San Diego Water Board has include new cost estimates in the economic analysis section of the Environmental Analysis. The San Diego Water Board's previous cost estimate underestimated the number and cost of the Austin (type) sand filters.

Comment No. 44: The California Toxics Rule includes a 10% Margin of Safety (MOS). Regional Board staff proposes to add an additional 10% MOS.

The additional 10% MOS is unnecessary and arbitrary. It is reasonable to assume that the additional load reductions required by this additional MOS will render certain BMPs ineffective in terms of compliance in some portions of the watershed, resulting in the need to build more costly and intensive BMPs. Please describe the need for the additional 10% MOS.

Response: The two margins of safety are for different purposes and are necessary and appropriate. The CTR MOS is included as a matter of CTR protocol to ensure adequate water quality by establishing the recommended limit below the limit of impairment. The TMDLs 10 percent MOS is included to address any potential errors in the methodologies utilized to calculate the TMDLs.

Comment No. 45: Please resolve the apparent inconsistency between the following adjacent sentences in the Chollas Creek Dissolved Metals TMDL, Appendix I (July 25, 2006, page 15):

The implementation of these TMDLs will result in improved water quality in Chollas Creek and its [sic] tributaries and will not have significant adverse impacts to the environment. Specific projects employed to implement these TMDLs may have significant impacts, but these impacts are expected to be limited, short-term, or may be mitigated through design and scheduling.

The second sentence referenced appears to indicate that certain impacts, although they may be limited or short-term, will be significant. Which impacts are significant?

Response: The inconsistency was resolved in the March 9, 2007 version of the Technical Report.

Comment No. 46: Why is the use of tiering treated differently in the Bact-1 CEQA Checklist (page R-13) than in the “Adequacy of the Environmental Review Documents for the Chollas Creek Metals TMDLs” Discussion Paper dated April 6, 2006?

Response: Both the Bact-1 TMDL and Chollas Metals TMDLs were revised to treat tiering consistently. Please see the March 9, 2007 versions of the two TMDLs.

2.2. Comments from Caltrans (September 11, 2006)

Comment No. 47: General Comments. The purpose of this document is to disclose the types of environmental impacts that may result from the construction and operation of a “representative” example of each Best Management Practice (BMP) that may be chosen for use. The project description provides insufficient information about the types of structural mitigation that may be implemented as part of the metals control program.

While the document mentions the types of mitigation projects that may be implemented by permitted agencies, it does not clearly explain how these projects would be constructed and the actions necessary to install various mitigation projects. The frequency, magnitude and duration of each action are unknown, making it difficult to understand the severity of potential environmental impacts. The project description prepared by RWQCB staff should have provided some graphics showing what these various basins and filters look like and how a typical or representative BMP might be implemented. General descriptions, their construction, and a graphic for each BMP, would greatly enhance the layperson's understanding of how they might impact the environment. While site-specific analysis is beyond the scope of this study and not warranted at this stage of the regulatory program, the San Diego Regional Water Quality Control Board (RWQCB) has at minimum, a duty to disclose, at a programmatic level, the types of impacts that might occur from the construction and operation of various types of BMPs (detention basins, wet basins, infiltration basins, sand filters, and diversions systems) in the Chollas Creek watershed. The RWQCB has primary responsibility to properly disclose, at a programmatic level, the types of impacts that can reasonably be expected to occur from program implementation. Each of these pollution control systems will have potential impacts that should be disclosed. For example, the detention and infiltration of metal-laden storm water runoff could potentially cause shallow groundwater degradation. This issue, and how the RWQCB will deal with indirect impacts to groundwater, should have been addressed more fully in the document. More specificity about the various control devices and how they are constructed and installed will enable meaningful environmental analyses.

Response: New analysis was added to the March 9, 2007 version of Appendix I, Environmental Analysis, Checklist, and Economic Factors. This analysis addresses the concerns expressed in the comment.

Comment No. 48: This document should be functionally equivalent to a programmatic Environmental Impact Report (EIR) with the primary goal of disclosing the cumulative impacts of the regulatory program. As stated in the CEQA guidelines (14 CCR 15168), a programmatic EIR should be for projects that are related geographically, logical parts in a chain of contemplated actions, connected as part of a continuing program and carried out under same authorizing statute or regulatory program and have similar environmental impacts. It is clear this program meets these four tests. In addition, if this document was prepared properly identifying potential impacts and mitigation measures, subsequent projects proposed by the permittees could agree to adopt mitigation recommendations and might rely upon it for their CEQA compliance. In its current state, all BMP implementation projects will require at a minimum an initial study by the various cities and organizations that will be regulated by this program.

Response: Please see response to comment number 34.

Comment No. 49: The RWQCB needs to provide substantial evidence for each determination in the check box response in the initial study. The Board appears to only

prepare responses for significant or potentially significant impacts and no response whatsoever for “No Impact” responses. The Board provides no factual information or substantial evidence to support many of these no impact conclusions. Mitigation measures, when discussed, are addressed only generically and not in a format that provides specificity regarding their timing, responsible party, standards of success and funding information as required by CEQA.

Response: New analysis and explanation for the “no impact” responses were added to the March 9, 2007 version of Appendix I, Environmental Analysis, Checklist, and Economic Factors. This analysis addresses the concerns expressed in the comment.

Comment No. 50: There is no information to support the No Impact claims for three out of four checklist questions [regarding scenic vistas, historic buildings, and scenic resources]. No Impact conclusions regard scenic vistas, historic buildings, or scenic resources. This section needs to provide documentation and evidence to support these conclusions.

Response: In the March 9, 2007 version of Appendix I, new analysis was added to the aesthetics and cultural resources sections of the Environmental Checklist in which the “no impact” designation was changed.

Comment No. 51: There is no information to support the No Impact conclusions regarding agriculture. It may be self-evident to Board staff, but no information is provided to the layperson to support this position.

Response: An explanation for the “no impacts” response was added to the March 9, 2007 version of Appendix I..

Comment No. 52: Construction of these various BMPs will undoubtedly generate short-term construction emissions from heavy equipment needed to grade areas for new basins or construction of sand filters. The RWQCB should disclose numerical estimates of the air emissions from a typical or representative BMP project and provide mitigation measures for those impacts. Various air quality predictive models, e.g., urban emissions (URBEMIS) and others, supported by the California Air Resources Board (CARB) should be used to make reasonable predictions. Again, no information is provided to support these conclusions.

Response: Specific numerical estimates are not discussed because of the variability of the potential BMP locations. Emission limits and tolerances may vary among municipalities and within specific land uses. The substitute environmental documents contain sufficient information and analysis for the public to understand the potential adverse environmental impacts of air pollutants, and to provide the San Diego Water Board with meaningful discussion and comment on these impacts. Site specific air

emission controls and mitigation will have to be considered when the dischargers actually begin designing and constructing BMPs.

Comment No. 53: The mitigation measures discussed in this section do not meet CEQA requirements. Measures should be discussed in detail and describe various details including timing, agency responsible, funding and measures of success. These general concepts for mitigation do not provide guidance to the cities that will comply with the TMDL and CEQA. This section provides little documentation of impacts and provides only a generic discussion of mitigation. The document should have at least presented biological information and results from the California Natural Diversity Database (CNDD), and described where existing rare, threatened or endangered plants and animals are found in the Chollas Creek watershed. Creek diversion systems could have impacts on water resources and aquatic resources in Chollas Creek and should be disclosed as required. To defer this analysis and simply state that this will be done later by the cities and others is improper and presents inadequate disclosure under CEQA. The Board is required to document the potential impacts from this regulatory program at a general level and describe in sufficient detail measures that could be implemented to reduce impacts to less than significant levels. It is a highly urbanized environment, but there is always a possibility that species might be impacted from indirect activities associated with a mitigation project due to timing, proposed laydown, and vehicle parking. The document should have identified these areas within the watershed, as well as the range of mitigation measures that could be employed by project-level permittees.

Vector control, groundwater quality, and hazards are discussed in the biology section and are misplaced. These issues should be discussed in their appropriate sections of the checklist.

Response: The March 9, 2007 version of Appendix I was expanded to include more discussion on mitigation measures. Consequently, the proposed mitigation measures are described in adequate detail for this planning level environmental analysis. More detail with respect to the timing of mitigation was added to the March 9, 2007 version of the analysis. The agency responsible for mitigation depends on the jurisdiction in which the BMPs are implemented or constructed. This analysis did not speculate on the specific locations where agencies might or might not construct BMPs. CEQA does not require the San Diego Water Board to identify funding sources for mitigation measures or measures of success. However, a mitigation is successful if it lowers the impact below the significance threshold.

Additionally, new analysis that addresses the concerns of the comment was added to the March 9, 2007 version of the biological sections, both plant and animal, of the Environmental Checklist. Vector control was appropriately relocated.

Comment No. 54: No substantial evidence or citation of literature is provided to back up the No Impact determinations provided in the document. The explanations to the checklist questions need to be revised accordingly.

Response: New analysis was added to the March 9, 2007 version of the Environmental Checklist, and in many instances the “no impact” designation was changed. Explanation of the remaining “no impact” designations were also provided.

Comment No. 55: In general, the RWQCB should focus on the benefits that will be derived from removing metals from the drainages and tributaries in the Chollas Creek watershed in this section, since it is one of the primary goals of the TMDL. No substantial evidence or citation of literature is provided to backup the No Impact determinations provided in the document for the eight checklist questions. This section needs to be revised accordingly

Response: Although removing metals from the drainages and tributaries will provide an environmental benefit, the purpose of the Checklist is to disclose adverse environmental impacts. Therefore, the benefits of the TMDLs were not discussed. Explanations of the “no impact” designation were provided in the March 9, 2007 version of Appendix I.

Comment No. 56: As previously noted, the document should have presented data from the CNDD with regard to Rare, Threatened, or Endangered (RTE) wildlife within the Chollas Creek watershed and the Estuary. It is inadequate to defer this analysis to subsequent permittee projects.

This section needs to provide better descriptions of mechanisms of potential impacts and recommended mitigation measures that maybe adopted and implemented by Tier 2 permittees to address species protected by the Migratory Bird Treatment Act (MBTA). As currently written, the reader has no idea of the range of impacts to these species.

Response: New analysis that addresses the concerns expressed in this comment was added to the March 9, 2007 version of the animal life section of the Environmental Checklist. Also, please see response to comment number 34.

Comment No. 57: The noise section needs to provide more specificity with regard to potential impact and mitigation measures that would be used by those entities implementing mitigation projects. The document should have presented information about noise ordinances or policies in noise elements of general plans of the various cities in the watershed. Predictions of noise levels from various construction activities should have been estimated to provide the reader with a sense of noise impacts and mitigations.

Response: New analysis that addresses the concerns expressed in this comment was added to the March 9, 2007 version of the noise section of the Environmental Checklist.

However, specific municipal noise ordinances or policies are not discussed because of the variability of the potential BMP locations. Noise ordinances or policies may vary among municipalities and within specific land uses. The substitute environmental documents contain sufficient information and analysis for the public to understand the potential adverse environmental impacts of noise associated with this project, and to provide the San Diego Water Board with meaningful discussion and comment on these impacts. Site specific noise controls and mitigation will have to be considered when the dischargers actually begin designing and constructing BMPs.

Comment No. 58: This section should at least attempt to quantify traffic impacts from the proposed project using various assumptions for maintenance of these devices. No substantial evidence or citation of literature is provided to back up the No Impact determinations provided in the document for the seven checklist questions. This section needs to be revised accordingly

Response: In the March 9, 2007 version of Appendix I, new analysis that addresses the concerns expressed in this comment was added to the discussion of the transportation and circulation question (no. 13.a) in which the “no impact” designations were changed. However, quantifying specific traffic impacts due to assumptions for maintenance of BMPs devices is dependant on speculation on specific BMP implementation program, type and, location, which is beyond the level of detail included in the analysis.

Comment No. 59: This section does not provide any evidence or documentation to support their conclusions and needs to be revised. There are potentially many historical and cultural sites in the Chollas Creek region that could potentially be impacted by a future implementation project. RWQCB should have conducted a records search of the Information Center of the California Historical Resources Information System and presented an analysis of the range of impacts to could occur from implementation of the various devices on these cultural resources in the watershed.

Response: In the March 9, 2007 version of Appendix I, new analysis was added to the discussion of the archeological/historical question (no. 20.a) that expands the discussion of cultural resources. Site specific historical and cultural resources and mitigation will have to be considered when the dischargers actually begin designing and constructing BMPs. At that time, the dischargers should conduct the records search described in the comment.

2.3. Comments from the San Diego Coastkeeper (September 25, 2006)

Comment No. 60: Coastkeeper supported the proposed Basin Plan amendment (BPA) as submitted to the State Water Resources Control Board (State Board) in June 2005. We understand that the State Board remanded the BPA back to the Regional Water Quality Control Board (Regional Board) for recirculation and further public comment on changes

made to the Environmental Checklist after the close of the previous public comment period. The meeting minutes of the State Board meeting on May 2, 2006 state that while “the State Water Board *does not agree* that the San Diego Water Board failed to adequately consider the significant environmental points, the State Water Board remands this Basin Plan amendment so that the San Diego Water Board, in the first instance, can consider the comments of interested persons on the substitute environmental document.” (SWRCB Meeting Minutes May 2, 2006 available at <http://www.waterboards.ca.gov/agendas/2006/xminutes/mins050206.pdf>, emphasis added)

The remand by the State Board requires the Regional Board to collect public comments only on the portions of the BPA that were unavailable for comment during the previous comment period.

Coastkeeper continues to support the proposed BPA, and strongly agrees with the State Board that further comment should be limited to the revised documents. In our work with the city of San Diego on this matter, we understand the City will be submitting a study on TMDL feasibility. Coastkeeper has commissioned comments on that study from Dr. Richard Horner. Please find Dr. Horner’s comments in the attached letter.

Response: The environmental analysis was largely rewritten in September 2006 and again in March 2007. In light of the major rewrite, taking comments on the entire environmental document was prudent. Further, because the entire Technical Report is part of the substitute environmental documents, the San Diego Water Board is obligated to allow comments on the entire substitute environmental document, including the Technical Report.

Comment No. 61: Specifically, Dr. Horner’s response to the City includes the usefulness of more hydrology and soil analysis data in assessing all possible strategies for implementing the TMDL. Also, greater geographic analysis would help address some future potential problems that may be encountered in meeting the proposed TMDL. For example, the possibility of using the Low Impact Development (LID) engineering strategies, which the City’s report states would reduce metal loading problems by 40 percent, could be further researched. A more detailed analysis is contained in the attached letter by Dr. Horner.

Although Dr. Horner’s comment letter expresses a few concerns about the BPA, we believe the BPA should go forward. The timeline set forth in the report is both realistic and proactive. Chollas Creek has been on the EPA’s 303(d) list for over ten years. It is important that the application of the TMDL begins as soon as possible. The State Board also expressed eagerness to begin implementation of the TMDL at the May 2, 2006 meeting at which Chairman Dudoc requested that the Regional Board act upon the TMDL within the next three months. The iterative process for implementing TMDL outlined in the BPA will allow for continuing improvement upon the plan. Delaying the adoption of the BPA in order to create the perfect plan does not promote the objective of the Clean Water Act or the spirit of the TMDL provision.

Coastkeeper recommends that the BPA be approved with the current timeline. The toxicity of metals in Chollas Creek cannot be decreased without the prompt implementation of the TMDL within the schedule proposed.

Response: To allow the discharger to integrate BMP planning for all TMDLs and water quality control programs in the watershed, the San Diego Water Board extended the Compliance Schedule from 10 years to 20 years. Integrated BMP planning and implementation should minimize construction related environmental impacts, while the 80 percent load reduction in 10 years will ensure aggressive load reductions in the first decade of the program.

2.4. Comments from John W. Stump (October 12, 2006)

Comment No. 62: Missing Partners: CALTRANS: In the Chollas Watershed we have many freeways that cross it. The Martin Luther King, I-5, I-15, and I-805 freeways dump road wash directly into Chollas creek. My favorite is the drain spout on the I-805 underpass for Home Avenue. CALTRAN's must be part of the clean up.

Response: Caltrans is included in the Chollas Metals TMDLs and received a WLA along with other MS4 dischargers.

Comment No. 63: COUNTY of SAN DIEGO Most City of San Diego residents forget that their is an incorporated portion of the County in the middle of the City next to Mt. Hope Cemetery and in the Chollas water shed. There is a doughnut hole in watershed. The County controls the Air Pollution Board and Environmental Services and these agencies need to sit with us on this clean up. One of these agencies is located in the watershed. The County should be helping with our clean up efforts.

Response: The County of San Diego is included in the Chollas Metals TMDLs and received a WLA along with other MS4 dischargers.

Comment No. 64: POLICE, FIRE, PARKS and REC. These three (3) Departments must review there procedures in the water shed that may be contributing to storm water pollution. Vehicle parking, equipment draining and washing, and animal exercise and relief. Pool maintenance and draining is a concern as are practices concerning fertilizers and grounds maintenance.

Response: The City of San Diego, including all services and development projects, are included in the Chollas Metals TMDLs.

Comment No. 65: MOUNT HOPE, CHOLLAS LAKE, CHOLLAS LAND FILL and OTHER SITES During yesterdays staff presentation infiltration was dismissed because of soil conditions of vernal pools. What needs Further consideration is use of City sites

like Mount Hope, storage at Chollas Lake, use at Chollas Land Fill, Colina del Sol golf course, and other City sites. I was intrigued when faced with a Billion dollar price tag; by the San Pasqual brackish water project. We could explore a demonstration project of infiltration of brackish water as has been done in LA for downtown to begin to recover that aquifer.

Response: The San Diego Water Board cannot dictate the method of compliance with the TMDLs. The City of San Diego could consider the proposal in the comment, but we cannot compel them to do so.

Comment No. 66: REDEVELOPMENT AGENCIES & HOUSING & WORKFORCE PARTNERSHIP At least four redevelopment areas are involved in the Chollas water shed - City Heights, SEDC, Crossroads, and Barrio Logan. CCDC sends low income housing funds to these areas and is supported by its workers and infrastructure. The Housing Commission has more than 30% of its housing in the Chollas watershed. How much of the Housing Commission' Housing stock is threatened by the Westen study is unknown. These six (3) agencies could contribute to the planning process to a better solution to the water shed. They should also be asked to review their BMP's.

Response: The San Diego Water Board cannot dictate the method of compliance with the TMDLs. The City of San Diego could consider the proposal in the comment, but we cannot compel them to do so.

Comment No. 67: SDG&E , COX CABLE, SBC COMMUNICATION The Chollas watershed has for the most part above ground copper wire utilities on creosol wood poles. The impact of accelerating the schedule of undergrounding these utilities on storm water should be considered. Advancing the schedule for the Chollas community undergrounding would remove thousands of tons of copper and chemicals from Chollas water shed now.

Response: The San Diego Water Board cannot dictate the method of compliance with the TMDLs. The City of San Diego could consider the proposal in the comment, but we cannot compel them to do so.

Comment No. 68: San Diego City Schools, Community Colleges, Private Schools, Churches and Related. Absent from the staff report was the involvement of the San Diego City School representatives. San Diego City Schools may have more facilities and acres Chollas than the City. They and the others listed above should be at the table.

Response: All schools in the Chollas Creek watershed are scheduled to be regulated through the Phase II small municipal stormwater requirement, immediately upon adoption of these TMDLs. Please see the Technical Report section 11.5 for more details.

Comment No. 69: SAN DIEGO MILITARY COMMUNITY Absent from the staff report was the Military community. Most people are unaware the US military have extensive housing projects in the Mid City and City Heights. One project is over Auburn

Creek and several are directly adjacent to the Chollas Creek. The Milliartry needs to be at the table in several roles.

Response: The City US Navy is included in the Chollas Metals TMDLs and received a WLA along with other MS4 dischargers.

2.5. Comments from John W. Stump (October 13, 2006)

Comment No. 70: Chollas Creek Watershed Meetings. I also suggest that meetings regarding the Chollas Creek Watershed occur in the Chollas Creek Watershed. City Heights has several meeting facilities which are larger and better than your agency facilities which I can assist you in booking, This idea will facilitate community attendance and start saving the environment by eliminating road trips.

Response: The San Diego Water Board appreciates the willing assistance. However, at this late stage in the TMDL development, we anticipate only formal hearings and Board deliberations, which are best served by our facility. Implementation meetings could certainly take place in the watershed.

Comment No. 71: Street Sweeping Proposal - Nasty Little Bits of Evil - The City seems to be proposing as an alternate proposal to an more engineered and traditional storm water treatment facility plants demonstration programs of SPECIAL CHOLLAS CREEK STREET SWEEPING PROPOSAL.

The Devil is in the details of this SPECIAL CHOLLAS CREEK STREET SWEEPING PROPOSAL the problem faced in the movie "TIME BANDITS" they had to pick up all the "Nasty Little bits of Evils". In several places in the Chollas Creek watershed the City of San Diego already has signed special Maintenance Assessment Districts (MADs) Special Parking Permit Districts, and other controlled areas to promote regular and frequent street sweeping. The new greater program would have to be measured over this existing base line. Compliance now has been spotty. Investment would be expected to in addition to this effort. A Cost Benefit Analysis of this proposal should be made on this proposal against demonstrated program over its 20 year life for other real programs operated successfully in a comparable climate and watershed. I also suggest that this proposal only be deployed in limited areas and tributaries of this watershed until proven effective. For example, The 38th Street Canyon ,of City Heights, by the Copley YMCA may be ideal for proving up this concept because it has all of the elements discussed above. The SPECIAL CHOLLAS CREEK STREET SWEEPING PROPOSAL needs to be proven before it can delay the schedule for implementation for other proven traditional technologies.

Response: The San Diego Water Board cannot dictate the method of compliance with the TMDLs. The City of San Diego could consider the proposal in the comment, but we cannot compel them to do so.

Comment No. 72: NOTICE TRANSIT AGENCIES My comments yesterday neglected to include the transit agencies that serve the Chollas Creek watershed. As I am sure you are aware, City Heights has some of the highest ridership in the County of San Diego. Please bring the Transit agencies to the table in this matter. One solutions may to increase ridership and remove private automobiles from the roadways. Electric vehicles or trams route around the first mesa may also help.

Response: The City of San Diego, including all services and development projects, are included in the Chollas Metals TMDLs.

2.6. Comments from Brake Pad Partnership (November 3, 2006)

Comment No. 73: As the facilitator of the Brake Pad Partnership, it has come to my attention that the Total Maximum Daily Load (TMDL) for Copper, Lead, and Zinc in Chollas Creek, Tributary to San Diego Bay, which is due to be approved by the San Diego Regional Water Quality Control Board on November 10, has important relevance to the work of the Brake Pad Partnership. I would like to convey two important concerns I have regarding the copper portion of the proposed TMDL. My first concern is that the implementation plan as currently written will encourage San Diego stormwater managers to take actions that would undermine the work of the Brake Pad Partnership, which provides an important benefit to the State of California. My second concern is that the implementation plan as currently written does not allow for adaptive implementation, which would allow Regional Water Quality Control Boards and stormwater managers to respond to new information that the Brake Pad Partnership is currently developing.

The Brake Pad Partnership

The Brake Pad Partnership is a multi-stakeholder effort to understand and address as necessary the impacts on stormwater and surface water quality that may arise from brake pad wear debris generated in the use of passenger vehicles. Since 1997, brake pad manufacturers, water quality regulators, stormwater managers, and environmental groups have been working together to evaluate the potential impacts of copper from brake pads on water quality in the San Francisco Bay.

The collaborative nature of the Partnership is grounded in several key foundational commitments: (1) brake pad manufacturers have committed to introducing new products, which would be available to all of California and the Nation, if the Brake Pad Partnership determines that brake pad wear debris is a significant source of copper to the Bay; (2) regardless of the Partnership's findings with respect to copper, brake pad manufacturers have committed to incorporating the evaluation approach developed by the Partnership into their existing practices for designing products that are safe for the environment while still meeting the performance requirements demanded of these important safety-related products; and (3) all stakeholders have agreed to work collaboratively within the Partnership, and to not simultaneously sponsor, pursue, or promote legislative or legal action relating to brake pads, prior to the completion of the Partnership's technical studies and resultant action plan.

Technical Studies Currently Underway

The Brake Pad Partnership is now conducting the technical studies needed to understand the role of copper from automobile brake pad wear debris on stormwater and surface water quality. These technical studies are supported by a State Water Resources Control Board Coastal Nonpoint Source Pollution Control Program Grant, pursuant to the Costa-Machado Water Act of 2000 (Proposition 13), and a grant that is currently pending from the California Department of Transportation (Caltrans). These grants support the Partnership's effort to carry out a set of interlinked laboratory, environmental monitoring, and environmental modeling studies to understand the fate and transport of copper from automobile brake wear debris in the environment. The Partnership initiated work on these studies in October 2003 and plans to complete them in December 2007, and will be followed immediately by the development and implementation of an action plan in early 2008.

Need for Incorporation of the Brake Pad Partnership into the Proposed TMDL Implementation Plan

As currently written, the implementation plan will encourage San Diego stormwater managers to take actions that could jeopardize the beneficial contributions of the Brake Pad Partnership in developing sound and effective strategies for addressing copper in brake pads as a source of copper in stormwater. Specifically, the pursuit of legislative or legal actions relative to brake pads and stormwater quality prior to the completion of the Brake Pad Partnership's work could likely lead to the collapse of the collaborative effort that has made our successes to date possible.⁸ The result would be the abandonment of the current technical effort and loss of critical information, as well as the loss of important copper usage data that is made publicly available from brake pad manufacturers through the Brake Pad Partnership.

As an alternative, I recommend that the TMDL implementation plan be revised to specifically include the Brake Pad Partnership, and to encourage San Diego stormwater agencies to work in partnership with the brake pad manufacturing industry. This is the strategy that the San Francisco Bay RWQCB (Region 2) is taking with its permittees. The Brake Pad Partnership is a component of the implementation plans for addressing copper impairment listings in the San Francisco Bay Area. In June 2002, Region 2 promulgated site-specific objectives for dissolved copper in the San Francisco Bay south of Dumbarton Bridge and established requirements that local stormwater managers and point source dischargers implement a set of actions to prevent increases in dissolved copper concentrations.⁹ The implementation actions are contained in the *Copper Action*

⁸ Information on the Brake Pad Partnership and its technical results to date are available on our website at: <http://www.suscon.org/brakepad/index.asp>. The "Documents" page contains all of our most current technical reports and the "Technical Reference Library" contains a compilation of abstracts of scientific and engineering publications relating to the transport and fate of copper from brake pad wear debris in the environment. Hard copies of these publications are available at the US Environmental Protection Library in San Francisco.

⁹ San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) 2002. Staff Report on Proposed Site-Specific Water Quality Objectives and Water Quality Attainment Strategy for Copper and Nickel for San Francisco Bay South of the Dumbarton Bridge. Prepared by Richard Looker, May 15, 2002.

Plan,¹⁰ and have subsequently been incorporated into discharge permits as appropriate. With regard to copper from automobile brake wear debris, discharger “support” of the Brake Pad Partnership is included as a baseline action for the copper control strategy. As a part of addressing the impairment listings for copper in the San Francisco Bay North of the Dumbarton Bridge, Region 2 is developing site-specific objectives for copper and a Bay-wide implementation plan supporting those objectives. The implementation plan will contain required actions for wastewater sources, shoreline activities, and for urban runoff management agencies. Region 2 is already developing permit provisions for urban runoff programs that will be consistent with the implementation plan for the copper objectives. These permit provisions address industrial copper sources, architectural and pesticidal uses of copper, and automobile brake pads. It is anticipated that these permit provisions will state that urban runoff management agencies have an affirmative responsibility to avoid or minimize the release of copper by controlling all sources in their program areas. However, it is also anticipated that the provisions will recognize that the Brake Pad Partnership is close to completing its work. Accordingly, the permittees will be encouraged to continue to support the Partnership efforts, and participate in the development and implementation of the resultant action plan for addressing copper from brake pad sources. The permit provisions will likely call for additional control measures for copper, including copper from brake pads, but the need for these additional measures will be determined, at least in part, by the nature and extent of Partnership outcomes. The Bay Area dischargers’ participation in and support of the Brake Pad Partnership, in conjunction with the Bay Area Stormwater Management Agencies Association, has been critical to the progress we have made to date.

Need for Adaptive Implementation Provisions

The results of the Brake Pad Partnership’s work will provide important information regarding copper control management strategies and timelines for source control actions. I recommend that the proposed TMDL implementation plan be revised to include an adaptive implementation provision that will allow for the incorporation of new information resulting from the Brake Pad Partnership and other sources that will have implications for the most effective means of meeting the TMDL requirements. Through the work of the Brake Pad Partnership, we have learned a tremendous amount about the transport and fate mechanisms for copper from brake pad wear debris in the environment that have important implications for stormwater management, and we are continuing to learn more through the remainder of our planned technical studies. In addition, the Brake Pad Partnership is focusing on understanding brake pad manufacturers’ required timelines for technology and new product development and the deployment of new products on new vehicles (through original equipment suppliers) and used vehicles (through replacement pads). Both the technical and timing information will be critical to achieving an effective copper control strategy.

Response: The San Diego Water Board appreciates the efforts put forward by the Brake Pad Partnership, and encourages the Partnership to work together with all identified dischargers to reduce copper loading in the Chollas Creek watershed. The San Diego

¹⁰ Tetra Tech, Inc., Ross & Associates Environmental Consulting, Ltd., and EOA, Inc. 2000. Copper Action Plan, Final Report, June 2000. Prepared for the City of San Jose.

Water Board is optimistic that the 20 year TMDL schedule will work well with the efforts outlined by the Partnership above.

3. COMMENTS FOR MARCH 9, 2007 TMDL DOCUMENTS

3.1. Comments from Tershia d'Elgin (March 30, 2007)

Comment No. 74: As We've been talking with Chris Zirkle about dead-end streets in canyons and what to do about them. I'm a bit fuzzy about the limitations, but as Chris explained to me, the board has discretion on where the TDML applies, but under the current scheme, the City is only motivated to repair above the outflow. I guess the board has put forward language
[_http://www.waterboards.ca.gov/sandiego/programs/programs.html](http://www.waterboards.ca.gov/sandiego/programs/programs.html)
(<http://www.waterboards.ca.gov/sandiego/programs/programs.html>)
that states that killing wetland vegetation by eliminating dry weather flows is a less than significant impact.

I can provide visual and data evidence that the present flows are contributing to sedimentation, headcutting, and pollution. Eliminating dry weather flows will only increase degradation when storms occur. We would like to encouraging BMPs in canyons to treat runoff (not UV filtration facility, obviously).

Response: The environmental documents do not state that “killing wetlands” is a less than significant impact. Habitat conversion which restores natural non-wetland habitat and removes exotic species dependant on pollutant laden nuisance flows is a less than significant impact. Various structural BMPs, such as infiltration, diversion, and equalization basins, will likely be incorporated in the Chollas Creek watershed. A probable long term outcome is the attenuation of peak flows during storm events. This reduction of peak flow will probably result in less sedimentation and headcutting, and pollution will also likely be reduced by the pollution cleaning functions of the structural BMPs. Therefore, any increase of sedimentation, headcutting, and pollution, due to decreases in nuisance flow dependant non-native plant propagation, will likely be offset by the reduction of peak storm flows and the pollution cleaning functions of the structural BMPs.

3.2. Comments from City of San Diego (April 9, 2007)

Comment No. 75: 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.

Response: The San Diego Water Board has modified the compliance schedule based on the City's recommendation, which included the strategy to incorporated all water quality

projects under the twenty timeline. Where feasible, new pollutants that are listed during the 20 year implementation schedule should be included within this timeline. Feasibility will have to be determined on a case by case basis.

Comment No. 76: 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?

Response: The evidence, in the form of the Weston report, submitted by the City outlines some of the challenges which will be faced in complying with the TMDLs. However, the Weston report presented very few options as solutions to the challenges. Securing dam permits (to increase basin depth and decrease basin size) as discussed in the response to comment No. 14, may be more reasonable than private property demolition to make room for large equalization basins.

No storm size or exceedance frequency was used to estimate the cost of implementing the TMDLS. Estimates in the substitute environmental documents were generated utilizing observed annual stormwater volumes in Chollas Creek. Base on the average volume, a cost to treat the entire annual volume was determined. This annual cost was divide by ten as a broad and convenient tool to aid dischargers in estimating the total required cost based on the 10th portion of the urbanized watershed needing treatment. For example, if the discharger determines that 36 percent of the urbanized watershed will require treatment, then the cost based on the 10th portion can be multiplied by 3.6 to obtain as reasonable cost estimate. Please see section 7 (Economic Factors) of Appendix I of the Technical Report, for additional details. In addition, please see answers to comment numbers 36 and 37.

Comment No. 77: 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.

Response: The CEQA requires the San Diego Water Board to consider a reasonable range of specific sites in its analysis, but does not require us to speculate on the specific locations where the dischargers may or may not choose to build BMPs. However, in evaluating potential impacts of BMPs, we considered what those impacts might be in all land use types present in the watershed. We disagree that structures cannot be built on top of underground detention basins. Please also see answers to comment numbers 36 and 37.

Comment No. 78: 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.

Response: Wetland vegetation dependant on nuisance flows in Chollas Creek is likely not "native." The San Diego Water Board 401 requirements derive from the Army Corp of Engineer's 404 certification requirements. The San Diego Water Board, as a certifying agency for the 404 program, has broad leeway in certification and mitigation requirements. Ensuring nuisance flow dependant non-native pest species plant propagation is not consistent with the San Diego Water Board 401 requirements.

We requested consultation with the California Department of Fish and Game (DFG) and the Air Resources Board, both trustee agencies with pertinent potential interest in these TMDLS. In discussions with Kelly Fisher at the DFG, she stated that constructing TMDL BMPs could be a possible concern depending on each case, and that the DFG would be involved for streambed alteration agreements and comment during CEQA review when dischargers actually design and site specific BMPs.

Comment No. 79: 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.

Response: The substitute environmental documents evaluated specific sites where BMPs could be located, in each of the major land use types in the watershed, including residential, industrial, commercial, roadways and open space land uses. Please see section 6 (Reasonably Foreseeable Methods of Compliance at Specific Sites) of the Appendix I of the Technical Report, for more details.

Comment No. 80: 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”.

Response: The storm drain sand filters, located at the storm drain inlet occupy minimal space compared to other structural treatment controls at the end of storm drains. For example, the City based the sizing of the equalization basins at the end of storm drains on a 3 foot depth, neglecting to analyze deeper equalization basins in order to avoid securing a dam permit. Deeper equalization basins will decrease the overall BMP footprints.

Comment No. 81: 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.

Response: Avoidance is a standard mitigation measure, thus the analysis discusses where treatment BMPs should not be built. The San Diego Water Board is not required to speculate on where the discharger may or may not choose to construct BMPs. However, in discussing potential impacts, we considered constructing BMPs in all land use types.

Comment No. 82: 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?

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?

Response: Please see answers to comment numbers 36 and 38.

Comment No. 83: 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?

Response: Thank you for the comment. The designation “less than significant” has been changed to “less than significant with mitigation” in the substitute environmental documents.

Comment No. 84: 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. 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? How would the loss of native and vegetation due to diversion of dry weather flows affect temperature in the receiving water?

Response: The significance thresholds used to assess potential impacts to plants and animals are as follows: 1) No net reduction in native or beneficial (high value) plant species. 2) No net loss of number of plant species or area of natural pre-development habitat. 3) No barriers to native or high value plant communities and no introduction of non native species. 4) No net loss of native or beneficial animal species. 5) No deterioration of high value beneficial animal habitat compared to current conditions.

Habitat-related beneficial uses for Chollas Creek include Warm Freshwater Habitat (preservation and enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates), and Wildlife Habitat (preservation and enhancement of terrestrial vegetation, habitat, wildlife, or wildlife water and food sources). A reduction or loss of dry weather flows may affect the present habitats found in and near Chollas Creek. Wildlife use of the creek as a drinking water source may be impacted with flow reduction; however, improvements in the water quality of the remaining water in the stream should be beneficial to wildlife.

A decrease in the flow volume and flow duration during dry weather conditions most likely would return the stream ecosystem to a more natural, pre-development condition,

which may include a reduction in total plant biomass, a change in the plant diversity (increase or decrease), or a decrease in certain non-native or invasive plant species.

The changes in plant species could positively or negatively impact wildlife. Loss of invasive or non-native plant species will allow space for native plant species to grow. The native wildlife species are adapted to the native plant communities which comprise wildlife habitat. They use the plant community for food and shelter for themselves and indirectly as food and shelter for their prey. In addition, the opportunity for restoration/enhancement of native plant species could be developed to benefit wildlife. If native plant communities naturally do not overtake the areas where biomass was lost, then restoration efforts should be considered.

A detailed explanation of how plant and animal species may respond to changes in stream flow during dry weather can be found in Appendix I, in the explanations to questions 4a and 4d.

Summertime dry weather flow in Chollas Creek that existed before extensive urban development in the watershed likely was supported by groundwater seepage into the channel. Since there is no groundwater development in Chollas Creek to lower the water table, dry weather base flow from groundwater seepage is likely to be at or higher than under pre-development conditions, due to a rise in the groundwater table from irrigation water recharge. Eliminating nuisance flows should not alter the dry weather flow in Chollas Creek due to groundwater seepage. Thus, reaches of Chollas Creek with perennial stream flow and riparian or wetland habitats should not diminish below pre-development levels.

Assuming that some flow remains in the stream, loss of vegetation may affect the stream temperature in two ways: by reducing canopy cover (if the vegetation lost is tall enough to shade the stream), or by reduction in flow from evapotranspiration. Vegetation that provides canopy cover will shade the water thereby preventing an increase in water temperature due to direct sunlight. Similarly, the shading will reduce the amount of evaporation in the stream, thereby maintaining a lower water temperature. Conversely, vegetation in and near a stream will absorb water from the stream or water table, which would then reduce the amount of water in a stream and increase water temperatures.

These temperature effects from reduced flows will be less than significant for Chollas Creek because pre-development conditions would not provide aquatic habitat during the dry season, and therefore, instream habitat would naturally be minimal or nonexistent during the dry season. Presently, species native to San Diego County may occur in Chollas Creek, but would not occur without anthropogenic sources. Net loss of native habitats or loss of species diversity will not be tolerated, as defined by the significance thresholds in the first paragraph of this response. Mitigation is expected for any losses that may occur due to this project.

Comment No. 85: 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?

Response: The substitute environmental documents for the Chollas Creek metals TMDLs do not require maintaining dry weather nuisance flow.

Comment No. 86: 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?

Response: The cost estimates were based on average annual measured flow volumes for Chollas Creek. Until a design storm is selected, the two approaches cannot be compared. However, the City’s high range cost estimate of 900 million dollars in the Weston Report is similar to ours. Please also see the answer to comment No. 76.

Comment No. 87: 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.

Response: The Caltrans BMPs referred to above were not extrapolated into BMP acreage requirement because of the potential variability in BMP design. However, all construction related adverse environmental impacts and mitigation has been provided. Please also see answers to comment numbers 76 and 80.

Comment No. 88: 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?

Response: CEQA does not require this level of detail. For a discussion on design storm please see the answer to comment number 2.

Comment No. 89: In discussing impacts to population and housing, the environmental analysis for both TMDLs recommends evaluating and implementing more reasonable alternatives such as nonstructural BMPs and low impact and/or small scale 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.

Response: If the dischargers choose this BMP approach, how it would roll out depends on how quickly the dischargers conduct feasibility studies, select sites for implementation, and secure financing for construction. If this approach does not result in compliance, the City of San Diego would have to combine this approach with other BMP alternatives.

Comment No. 90: 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?

Response: Yes it is possible to increase the WLA after the TMDLs are incorporated into the municipal stormwater requirements as a result of new site specific objectives, or a change to beneficial uses. TMDLs and WLA would be recalculated and incorporated into the Basin Plan, after which, the WQBELs in the municipal stormwater requirements would be revised. NPDES regulations [40 CFR section 122.44(l)(1)] prevent backsliding unless the circumstance upon which the previous permit was based have materially and substantially changed since the time the permit was issued. New site specific objectives, or a change to beneficial uses would qualify as a material and substantial change of circumstance so less stringent WQBELs could be allowed.

Comment No. 91: When is it anticipated that the TMDLs will be incorporated into the San Diego Municipal permit?

Response: No later than the next re-issue of those Waste Discharge Requirements.

Comment No. 92: 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.

Response: TMDLs are adaptive. Together with compliance monitoring, SCCWRP studies, TetraTech modeling studies, better characterization of hardness, and other new water quality information, we anticipate the need to re-evaluate the TMDLs, including the WLAs and changing from concentration based TMDLs to ones that are load based.

We recognize that it is in the City's best interest to re-evaluate pertinent concerns before capital resources are committed to design and build structural BMPs. However, because we don't know when we will have enough new data to justify re-evaluating the TMDLs, or what our TMDL priorities will be in the future, we do not include a re-evaluation provision in the Implementation Plan.

Comment No. 93: 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.

Response: The substitute environmental documents contain sufficient information and analysis for the public to understand the potential adverse environmental impacts of the project, including the impacts from any possible combination of BMPs, and to provide the San Diego Water Board with meaningful discussion and comment on these impacts. The CEQA does not require the level of detail requested in the comment for a planning level analysis. The dischargers are responsible for determining the specific BMPs that will be implemented at specific locations, and for evaluating the potential site specific environmental impacts of those BMPs. Because the size of BMPs can be minimized through the types of BMPs selected, and engineering solutions exist to minimize the footprint of BMPs, displacement of existing development will not like be on a scale that will cause significant environmental impacts.

Comment No. 94: 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).

Response: Cost discrepancy between Tables R-3 and I.2 come from utilizing different sources for cost reference. Cost estimates can differ significantly. For example, a sand filter built by Caltrans is much more robust in design and construction (therefore more costly), compared to a small sand filter retrofit for a city street. Where the same sources were utilized in the two tables (i.e., diversion structures), the cost indicated for Chollas watershed are identical.

Comment No. 95: 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.

Response: The implementation plan was revised to require the enrollment of all small MS4 owners/operators in the Chollas Creek watershed, immediately upon adoption of these TMDLs. In Chollas Creek, these persons are the La Mesa, Lemon Grove, and San Diego School Districts. Please see section 11.5 of the Technical Report. This section states that the San Diego Water Board shall require the school districts to submit Notices of Intent to comply with the requirements of Order No. 2003-0005-DWQ, the General NPDES requirements for the discharge of stormwater from small MS4s.

Comment No. 96: 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.

Response: Please see the response to comment No. 93.

Comment No. 97: 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.

Response: As discussed in the response to comment no. 2 and elsewhere, specific BMP design features such as acreage requirements are beyond the scope of our analysis. The discharger will be responsible selecting appropriate site specific BMPs and for evaluating site specific environmental impacts.

Comment No. 98: At what point of the approval process does the implementation period (e.g., 20 years for the Chollas Dissolved Metals TMDL) begin?

Response: Upon approval of the metals TMDLs by the Office of Administrative Law.

Comment No. 99: 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.

Response: Cost estimate can vary. We have provided two estimates, for sand filters in Appendix I, one from USEPA, and one from Caltrans for the more expensive Austin sand filter. The actual cost estimates will have to be determined by the discharger based on site specific factors prior to BMPs construction.

Comment No. 100: 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?

Response: Please see the answer to comment No. 2.

Comment No. 101: 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.

Response: The Technical Report concludes that direct aerial deposition of metals into Chollas Creek is not a significant source of metals because the surface area of Chollas Creek is so small compared to the rest of the watershed. Aerial deposition of metals throughout the watershed is likely a source of metals that are washed off the land surface and conveyed to Chollas Creek via MS4s.

3.3. Comments from Sierra Club (April 9, 2007)

Comment No. 102: We recommend that 10 year alternative compliance schedule be adopted instead of the preferred alternative 20 year compliance schedule for the metals in Chollas Creek for the reasons explained below.

The primary reason is that the extended schedule will conflict with the RWQCB Cleanup and Abatement Order for the shipyard site sediments. These sediments are just north of Chollas Creek and are highly contaminated with copper, zinc and other trace metals. We expect that the shipyard cleanup will be completed before the 20 year Chollas Creek compliance schedule. Cleanup of the shipyard sediment requires that recontamination by additional metals loading must not occur. The 20 year Chollas Creek metals TMDL compliance schedule would allow copper, lead, and zinc to be discharged into the bay, be

transported to the shipyard site well after the shipyard sediments have been cleaned up, and re-contaminate the shipyard site. This is clearly not acceptable.

Response: Achieving 80 percent compliance with the WLAs by year 10 of the compliance schedule should ensure that dissolved copper concentrations in San Diego Bay at the sediment cleanup sites are low enough not to cause dissolved metals to flux from the water column into the sediment. Therefore, the extended compliance schedule likely will not impact sediment cleanup.

Comment No. 103: The second reason is that the 20 year compliance schedule has not been adequately justified. The Reasonable Alternatives to the proposed activity in are presented in Section 8 of Appendix I Environmental Analysis, Checklist, and Economic Factors. Two alternative compliance schedules are given; the ten year schedule alternative for metals load reduction only and the 20 year compliance schedule for metals, bacteria, diazinon, and trash. The reason provided for the longer 20 year compliance schedule is to allow time for the discharger to integrate BMP planning, design and implementation to reduce the bacteria, diazinon and trash loading. Table 16.1 lists the public participation milestones. The first workshop took place in August 1999 almost 8 years ago. The initial draft TMDL was released in March of 2005. We attended the May 18, 2005 informal meeting of interested parties to discuss the compliance schedule and supported the 10 year compliance schedule. We believe that there has been ample time already to begin planning. It does not seem reasonable that the time to implement the diazinon TMDL would justify some of the increased schedule because It EPA has ordered the phase out and stopped retail sales of diazinon effective on December 31, 2004. Just exactly how the trash TMDL justifies the extended compliance schedule is not given.

Response: The diazinon TMDL was included because opportunities may exist to coordinate education and outreach on integrated pest management, trash reduction, pet waste reduction, and elimination of nuisance flows. Likewise, compliance monitoring for all of these water quality programs could be integrated to increase efficiency and effectiveness and lower costs. Trash is a major concern for the Chollas Creek watershed, and coordinating BMP implementation to include trash abatement is consistent with the San Diego Water Board mission. The potential high cost of TMDL implementation estimated in the substitute environmental document, roughly agrees with that estimated in the City of San Diego's Weston report. Based in part on this, and the potential for BMP coordination to eliminate uncertainties, a 20 year compliance schedule is justified.

3.4. Comments from San Diego Coastkeeper (April 18, 2007)

Comment No. 104: Our organization wrote letters of concern dated September 25, 2006 and February 12, 2007 stating our sincere hope that the Regional Water Board would comply with the State Board's request for the Regional Board to comply with the remand for the noticing requirements within three months. Unfortunately the Regional Board has decided to forego our concerns and further postpone the TMDL adoption process by

unexplained delays, creation of substantive changes, and doubling the compliance schedule.

Almost within the same breath of State Board Chair Doduc's request for the Regional Board to comply with the noticing requirements within three months, Boardmember Baggett's suggested amendment that the remand be amended to allow additional TMDL compliance time pursuant to similar TMDL time schedules was voted down. Again, this means that the Regional Board was only required to revise the remanded portions of the TMDL, specifically noticing and re-circulation under CEQA, and not reinvent the provisions or timeline for implementation.

Response: Although we were not required to revise the TMDLs' Technical Report in any way, only recirculate it to cure a deficit in our adoption process, we did so for two reasons. First, we revised Appendix I to be consistent with the Court of Appeals' interpretation of the CEQA requirements for certified regulatory programs in the Court's decision on the City of Arcadia vs. State Water Resources Control Board case. Second, in the fall of 2006, the City of San Diego proposed the 20 year compliance schedule for integrated bacteria and metals BMP planning and integration. Along with the proposal, the City of San Diego provided compelling evidence that integrated planning and implementation would be more effective and efficient, would help keep costs down, and would minimize adverse environmental impacts from construction projects. To minimize the water quality effect of extending the compliance schedule from 10 years to 20 years, the San Diego Water Board added the interim milestone of an 80 percent reduction in 10 years.

Comment No. 105: Coastkeeper is extremely concerned and disappointed as the Regional Board's revisit and revision of the TMDL doubles the compliance schedule from ten years to twenty. Had the Regional Board adopted the TMDL as per the State Board's request, implementation could be beginning. It is in the interest of all parties to anticipate consistency and certainty of decisions. By revisiting the TMDL and fundamentally changing its temporal effect, the Regional Board's actions are only continuing to delay the cleanup process. We also fear the path this TMDL took will discourage the kind of collaborative process between stakeholders that led to the initial compliance timeline.

Response: Please see response to comment No. 104.

Comment No. 106: While we disagree with the expansion of the compliance schedule and though we still believe the ten year timeline was aggressive yet fair, we do take note of and appreciate that 80% of the implementation will be completed within the first ten years. We are working with the City of San Diego to help them find pilot projects and technical solutions to meet the required reductions. We look forward to the final adoption and implementation of the TMDL at the meeting on April 25th, and will be available to address concerns during the hearing.

Response: Thank you for the endorsement. The San Diego Water Board appreciates all efforts to move the Chollas Metals TMDLs forward.

3.5. Comments from Caltrans (April 24, 2007)

Comment No. 107: The California Department of Transportation (Department) believes that the proposed compliance schedule in the Basin Plan Amendment would be significantly improved if it implemented measures to investigate important issues that are not sufficiently understood. Below is the Department's proposed approach to meet the water quality targets for copper, lead and zinc. We suggest three phases – Investigation, Pilot BMP Research, and Implementation.

Investigation – The first phase is an investigation phase to allow the Department to work with other stakeholders to develop an approach that would achieve the largest impact without duplicating funds and efforts. The Department proposes to work cooperatively with the stakeholders in public education, source control BMPs, and studies to better understand the, source of metals loadings, transport of the loads, effect of aerial deposition, and relationship between the total recoverable and dissolved metals in storm water and within the bay, (and) assimilative capacity of Chollas Creek with respect to the listed metals.

The Department, along with stakeholders, will work cooperatively with the Air Quality Management District (AQMD), Air Resources Board (ARB), and the U.S. Environmental Protection Agency (USEPA) on programs to address atmospheric deposition within the watershed.

Pilot BMP Research – The second phase will consist of piloting new technologies within the watershed to find a technically feasible BMP that will reduce pollutant concentrations to the variable levels required in the TMDL. In this phase, the Department proposes to build upon and refine initial BMP design. Consistent with the Department's BMP evaluation protocol, a minimum of three years of pilot BMP Monitoring will be conducted to obtain sufficient information to evaluate the BMP to ensure effective reduction of metals to concentration levels required in the TMDL.

Implementation – After successful piloting of a technically feasible BMP, the third phase will consist of a three-part implementation plan. Each phase will consist of siting, design, and construction of BMPs to meet the Department's compliance needs. Implementation may begin with installation of BMPs within "hot spot" priority locations within the watershed.

Response: The San Diego Waterboard appreciates Caltrans' willingness to cooperate with the other dischargers in the Chollas Creek watershed. However, the proposal in the comment contains detail more appropriate for the pollution load reduction plan to be submitted by the dischargers following adoption of these TMDLs.

Comment No. 108: Clarification of impaired segments – The Department has concerns with the statement in the March 9, 2007 draft Technical Report that states:

While only the lowest 1.2 miles of Chollas Creeks comprise the actual impaired and listed segment of the waterbody, all upstream tributaries to this section are considered in this TMDL because they deliver metals loads to the lower segments.

The 2002 303(d) identified the lower 1.2 miles, and the 2006 303(d) list identified the lower 3.5 miles of Chollas Creek as impaired for copper, lead, and zinc. Consistent with the TMDL policy and guidance, TMDLs should address waters identified by the State as waters.

...for which the effluent limitations required by Section 1311(b)(1)(A) and Section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. (Title 33, U.S.C.A., Section 1313(d) [Clean Water Act Section 303(d)])

The lower 3.5 miles of the Chollas Creek has been identified on the State's 303(d) list of impaired waters. The TMDL and WLAs for Chollas Creek should therefore only apply to the 3.5 miles in the watershed listed as impaired. In addition, the staff report statement provided above, that refers to the lower 1.2 miles should be revised to the 3.5 miles of Chollas Creek identified in the 2006 303(d) list as impaired.

Response: Thank you for the comment. The Technical Report was revised to include the additional 2.3 miles. However, applying the TMDLs and WLAs watershed wide is appropriate because metals sources causing the impairment in the lower 3.5 miles of Chollas Creek may originate upstream of the reach designated as impaired. If receiving water quality is meeting standards upstream of the segment listed as impaired, then focusing on reducing metals loading in the lower 3.5 miles of Chollas Creek may be appropriate.

Comment No. 109: Numeric Targets – Water Effects Ratio – Water effects ration is a site specific eco-toxicological coefficient. The TMDL assumes a water effects ratio of 1, meaning that all of the measured metals are biologically available and toxic. This assumption may drastically overstate the actual toxicity of the concentrations that are observed onsite. A site-specific eco-toxicological evaluation of the water effects ratios at Chollas Creek should be undertaken to ensure the accuracy of the aquatic life criteria. Lee and Jones-Lee (2000) assert a basic problem with use of the USEPA water quality criteria to form discharge limits. The criteria fail to properly incorporate the aquatic chemistry of the constituents. Further, ambient waters and their sediments contain a wide variety of constituents that detoxify or immobilize the available toxic forms of pollutants, such as heavy metals.

Response: A site specific WER has not been developed for Chollas Creek. Until a site specific WER is available, the metals TMDLs must use a factor of 1 as detailed by USEPA. If a site specific WER for Chollas Creek were developed, these TMDLs could be recalculated. A WER for Chollas Creek could be proposed as a Basin Planning Project in the next Triennial Review of the Basin Plan, however, with our limited resources and Regional priorities, this project may not receive funding for some time. Alternatively, the dischargers are free to initiate the studies. Please see the Technical Report section 4.2 and Appendix H for more details.

Comment No. 110: Numeric Targets – Target Concentration – We are also concerned with the target concentration levels that are presented in the staff report. The target concentration levels are a function of the hardness values equating to lower target concentrations. Treatment technologies, however, have not been developed that will achieve the waste load allocations that are required for targets at low hardness values. To clarify our previous comment that the concentrations cannot be met with current technology, we are attaching four graphs to this letter.

Figure 1 – Copper Acute and Chronic Conditions, shows the concentration for copper that must be met for the range of hardness values for both acute and chronic conditions. The horizontal line shows the copper concentration of 10mg/L for the treated highway effluent from the sand filter. The sand filter will not meet the acute concentration when the hardness is less than 82 mg/L and will not meet the chronic condition when the hardness is less than 129 mg/L. For reference, a vertical line at 81 mg/L is shown for the average hardness within Chollas Creek (from Appendix A of the TMDL documents). At that hardness of 81 mg/L, available treatment technology for metals reduction, such as sand filters, will not adequately reduce copper concentrations to either of the TMDL limits.

In Figure 2 – Lead acute conditions, the horizontal line shows the lead concentration of 3 mg/L for sand filter effluent. The sand filter will not meet the lead acute concentration when the hardness is less than 8 mg/L.

Figure 3 – Lead Chronic Conditions, shows the concentration for lead that must be met for given hardness values for the chronic condition. The horizontal line shows the lead concentration of 3 mg/L for sand filter effluent. The sand filter will not meet the lead chronic concentration when the hardness is less than 130 mg/L. At average hardness of 81-mg/L sand filter will adequately reduce lead concentrations below acute conditions but not for chronic conditions.

Figure 4 – Zinc Acute and Chronic Conditions, shows the concentration for zinc that must be met for given hardness values for both acute and chronic conditions. The horizontal line shows the zinc concentration of 47 mg/L for sand filter effluent. The sand filter will not meet the zinc acute or chronic concentration when the hardness is less than 39 mg/L. At the average hardness of 81-mg/L, sand filters will adequately reduce lead concentrations below both TMDL limits.

Response: The San Diego Water Board can not dictate what BMPs that will eventually be used by the dischargers. Whether or not to use sand filters is a determination at the project level, after the specific site has been fully investigated and evaluated. The potential significant cost estimated in the substitute environmental document roughly agrees with that estimated in the City of San Diego's Weston report. Based in part on this, and the potential for BMP coordination to eliminate uncertainties, the implementation schedule has been doubled from 10 years to 20 years.

Comment No. 111: BMP Cost Estimates – The staff report misrepresents the Department's report ID CTSW-RT-01-050 (2004) estimates of infiltration trench cost. Table E.6 of the staff report estimates that the cost to implement infiltration trenches to treat 10% of the load from Urbanized Areas would be \$170 million (capital costs), with O&M costs of the infiltration trenches at \$720,000 per year. In addition, the O&M costs for the Austin Sand Filters are estimated at \$2,000,000 per year. These estimates are inaccurate. The calculations should be based upon the adjusted cost estimates presented in Table 3 of the Department's report that accounts for "generic retrofit costs that could reasonably be applied to other BMP retrofit projects".

Response: Thank you for the comment. Corrections were made to the cost estimates in Appendix I.

3.6. Comments from John W. Stump (April 25, 2007)

Comment No. 112: John Stump, resident of the Chollas Lake area asserted in oral testimony that subsurface water from Chollas Lake is impacting the closed Chollas Landfill area and also potentially impacting Chollas Creek. Mr. Stump stated that staff should investigate this assertion from the available information.

Response: The Chollas Creek metals TMDLs already addresses the South Chollas landfill as a potential metals source and calls for a revision to Order No. 97-11 to require groundwater monitoring for metals below and near the landfill. Please see section E. 10 Implementation Plan, of the Technical Report. If the monitoring results show metals in groundwater in excess of the WLA, the next step would be an investigation to determine potential pathways from groundwater to Chollas Creek, and/or revisions to the WDRs for the landfill.

3.7. Comments from the City of San Diego (April 25, 2007)

Comment No. 113: Type of BMPs Required – Is it expected that compliance with both TMDLs can be achieved without using treatment BMPs or infiltration?

Response: Based on the current information we've reviewed, no.

Comment No. 114: Size of BMPs Needed to Comply – What treatment capacity should be assumed in designing and building treatment BMPs for bacteria and dissolved metals? Is the 85th percentile storm adequate or should both TMDLs provide for a certain frequency of allowable exceedances?

Response: Designating design criteria for structural BMPs is an important consideration, but is beyond the scope of these TMDLs. This important topic should be investigated by the San Diego Water Board and stakeholders as early as possible in the TMDL implementation phase.

Comment No. 115: Potential Locations for BMPs – Where can treatment BMPs can be built – in receiving water or must they be built above storm drain outfalls? Are areas immediately below storm drain outfalls typically considered to be receiving water/Water of the State? If this answer can only be determined on a case-by-case basis, what factors will be analyzed and how will these factors be used?

Response: Please see the response to comment No. 36.

Comment No. 116: How did size and location fit into the Regional Board staff cost estimates for different BMPs identified?

Response: Size of BMPs and location were not considered in our cost estimates. The cost estimates were based on average annual observed flow volumes for Chollas Creek.

Comment No. 117: Compliance – Will compliance be monitored at outfalls, in areas of the watershed listed as impaired, or both?

Response: Designating where TMDL compliance will be measured is beyond the scope of these TMDLs. Please see the response to comment No. 36 for a discussion of some general approaches to compliance assessment that the San Diego Water Board could take.

Comment No. 118: Re-evaluation – Should both TMDLs include a “re-evaluation” provision so that we can evaluate the effectiveness of the City of San Diego’s preferred compliance strategy in five years?

Will anti-degradation provisions restrict us from relaxing the final Wasteload Allocations if future re-evaluations, reference studies, or Basin Plan amendments show that the Allocations should be increased. What is the policy for adopting TMDLs before these issues have been resolved?

Response: The San Diego Water Board can increase the WLA after the TMDLs are incorporated into the San Diego Municipal stormwater requirements as a result of new site specific objectives, a change to beneficial uses, or a refinement of the TMDLs based on new data. NPDES regulations [40 CFR section 122.44(l)(1)] prevent backsliding unless the circumstance upon which the previous permit was based have materially and substantially changed since the time the permit was issued. New site specific objectives, a change to beneficial uses, or a refinement of the TMDL based on new information would qualify as a material and substantial change of circumstance. Please also see response to comment No. 92.

3.8. Comments from the City of San Diego (May 29, 2007)

Comment No. 119: 1. The City continues to request that the Regional Board explicitly recognize in its CEQA documentation that treatment and/or diversion (e.g., via infiltration) of storm water will be required to comply with the proposed load reductions given the ubiquitous, legal, and uncontrollable sources of the pollutants. While Board staff has taken a step closer to doing this by listing these strategies as reasonably foreseeable, the impact analysis of this construction is inadequate.

Response: Our level of analysis, in the substitute environmental documents, is sufficient to disclose the level of impacts of the project and provide a forum for meaningful public discussion and comment on those impacts, including the impacts from any possible combination of BMPs. CEQA does not require the level of detail requested in the comment for a planning level analysis. The dischargers are responsible for determining the specific BMPs that will be implemented at specific locations, and for evaluating the potential site specific environmental impacts of those BMPs.

Comment No. 120: 2. The City continues to request that the Regional Board provide specificity on how compliance will be evaluated in terms of the number of Notices of Violation and/or fines that dischargers would be subject to if compliance is not obtained (e.g., one fine per outfall per day, one fine per tributary, one fine per gallon). I am pleased that the compliance issue with regard to where compliance would be measured (e.g., at storm water outfalls and/or locations downstream) as described in number 5 below.

Response: Please see the responses to comment Nos. 36 and 123.

Comment No. 121: 3. The City continues to request that the Regional Board dictate a design storm or allowable number of exceedences in the Bacteria-1 TMDL. Such an allowance is now recognized as at least a planning goal in the Chollas Creek Dissolved Metals TMDL as one exceedence every three years since this frequency is allowed by the California Toxics Rule; however, the Bacteria-1 TMDL provides no such guidance from

the state or federal government. Without this direction, the City is unable to design with certainty towards compliance its treatment and infiltration facilities and the Regional Board is unable to evaluate the environmental impacts of building the facilities. Moreover, since the Technical Report for the Chollas Creek Dissolved Metals TMDL indicates that 99.7% of the metals loading occurs during wet weather (page 35) and since the bacteria TMDL allows for zero anthropogenic-related bacteria, it is clear that treatment and/or infiltration of wet weather flows will be essential to compliance.

Response: Please see response to comment No. 2.

Comment No. 122: 4. The City has prepared a reasonable “Tiered” approach to implement the TMDLs. The approach entails implementing, as experiments, various combinations of non-structural BMPs, and structural BMPs on public property and voluntary incentive programs for private property owners. The goal of this part of the approach is to 1) determine whether, contrary to existing data, widespread treatment and/or infiltration of storm water is not required to comply with the TMDLs and 2) determine the maximum effectiveness of these Tier I and II in order to minimize the impacts of constructing Tier III (infiltration and treatment) BMPs on developed and privately owned land. The City requests that the Regional Board commit to a formal re-evaluation provision in the TMDL to that final load reductions and compliance strategies can be re-assessed after collecting data from Tier I and Tier II efforts.

Response: Please see response to comment No. 92.

Comment No. 123: 5. Regional Board staff has made a number of statements (referenced in previous comments) which provide a de facto prohibition on building treatment or infiltration works below storm drain outfalls for purposes of complying with the TMDLs. The City asks that the Regional Board formally state its position on where BMPs can be located to comply with these TMDLs.

Response: Please see response to comment No. 36.