CREST - Ballona Creek Bacteria TMDL Implementation Strategy Development.

Comments and Responses on 2nd Draft (December 23 Version)

Includes written and verbal comments received on 2nd draft of Tech Memo and at January 24, 2006 Joint Technical/Steering Group Meeting. Note that several comments were also received on the 1st draft (November 2005 version) from EPA , Regional Board, and other cities, and addressed and incorporated in the December version.

Commenter	**Comment**	Revisions made
EPA	Uncertainty as to how the implementation actions will be ultimately selected	Language added to introduction
	Uncertainty as to whether or not the actions taken will actually result in water quality improvements	Language added to introduction
	Cost presentation - need ranges, and review of most expensive/least useful strategies	Language added at end of cost section
	Documentation for statements of "reasonable assurance compliance will be met"	Additional language added under potential Implementation Strategies for Ballona Creek Bacteria TMDL
	Update language to indicate that toxics and metals TMDLs have now been approved.	Language updated
	It is still unclear to me why Ballona Creek would be much more difficult than in the other SMB watersheds.	Topic discussed, no further changes made
	Special Studies: The reference watershed, source characterization and modeling implementation are the most important activities that need to be addressed. I think that issues related to the effects of diversion on the estuary or other beneficial uses are lower on the scale	Accepted - changes made
	Need a review of schedule table in this document with respect to November version of schedule.	Changes made to schedule
	Need a review of monitoring section in light of Regional Board memo.	Changes made to monitoring section
LADPW	Page 16- under the section, "In-stream solutions", the following is provided as an option: "storm drain daylighting where feasible (dry weather only)." It does not seem possible to daylight a storm drain only during dry weather. This statement should be deleted or further explained.	Language clarified
	Under the section titled, "Capture, store, treat and discharge", it is stated that "0.45 inches of rainfall across all sub watersheds", will be used. Also, on page 20- under the section titled, " Assumptions for Preferred and Alternative Strategies" it states, "Use maximum wet weather storm event volumes for 0.45 inch rainfall event.". We suggest that the number of range gages used to establish the 0.45 inch rainfall value be mentioned. We also suggest that if only one rain gage was used to determine the 0.45 in value that you look at several rain gages throughout the watershed to develop an average value indicative of the entire watershed. Furthermore, the frequency for the 0.45 inches needs to be specified (i.e. 24 hours, per day).	Use of a "target" rainfall depth is for preliminary determination of potential capture volumes only and not a direct requirement of the TMDL; adding additional detail is not warranted at this time
Caltrans	pp.27-28, sand filter costs: p.27 para. 2 mentions that sand filters must be used with pretreatment devices such as biostrips or GSRDs. However, the capital costs and maintenance costs (Table 7) does not include these additional costs. Apparently, the authors assumed these devices will be in place. This section of the report is all about an integrated approach and should include those costs too. Especially since the alternative which is largely treatment plant construction would contain its own pretreatment.	While additional pre-treatment devices may be required, the additional cost was not included at this level

	Cost comparison of alternatives (see summary pp. 34-5): The present value method of comparison should be used. Please note that O&M costs for the preferred strategy are double that of the alternative. The additional capital costs to match the performance of the alternate strategy should be added to the preferred strategy to more equitably compare them. As presented the alternate strategy will do more to clean the water and will produce more benefits. If the present value method is used and other capital costs (such as that mentioned in 4-4 above) are added to the preferred strategy, the bottom lines will be closer.	Cost comparison are not necessary - see added discussion under cost section
	When data is referenced, footnotes should be used.	So noted
	P-5, 3rd Parag., "Strategies that would reduce or eliminate flow...". Any reduction or elimination of flow into the Creek should be evaluated for possible impact on the ecosystem and potential issues on water rights.	No change; discussed under list of special studies
	P-20, Implementation Schedule, 2nd Parag., please elaborate on "Stakeholders also recognize that fully meeting the dry weather...may be more difficult than in the SMBB watersheds...due to the differences in storm water infrastructure.	Minor text clarification.
	Table 4, It would be nice to reference due date for Item 4 based on the TMDL effective date.	No change
	Table 4, It seems to be a bit too long to "Submit a Final Implementation Plan...." at the 6thYear	Text changed to indicate "updated" Implementation Plan
	P-23, the 7th Bullet, "...for stream restoration...", it would be nice to elaborate on to what extent the stream is going to be restored.	No change - option not developed sufficiently to make a quantitative statement
	P-24, last Parag., "Smart Irrigation", It seems to be a great idea but would it be exceptive by the public and residents? Has there been feasibility study made?	LADWP, IRWD and others have investigated and idea is feasible. Widespread public acceptance depends on costs and potential incentives
	P-25, last Parag., do the costs include those for replacement of the controllers?	Costs do not include long-term O&M or replacement. Assumes that if public agencies fund the "first cost" as assumed, owners would assumed long-term costs since there would be significant savings in water costs
	P-26, Smart Irrigation, O/M, who will be doing the O/M, the City or property owners?	See above
	P-34, for Option of "Urban Runoff Treatment Plant", are the capital and O/M costs for distribution of treated water included?	Not included. Assumes that distribution system costs would be part of LADWP or others overall recycled water system and factored into recycled water rates

	P-35, it would be nice to provide an order of magnitude estimate for "In-stream Solutions"	See comment above - insufficient definition of option to develop costs
	Tables 9, 10, could the estimated drainage areas for each option or component be included ?	Complex issue - beyond scope of this effort
	It is suggested to provide preliminary costs for ambient monitoring, compliance monitoring, and special studies in order to establish an over all cost of TMDL implementation	Agree information is useful but beyond scope of current effort - will be developed with detailed Monitoring Program
	It is suggested to include in the cost estimate efforts for planning and design of all options, in addition, to include the hard costs such as for CREST ($ paid to the consultants) plus staff time from all agencies and stakeholders.	Cost estimates generally include "typical" factors for planning and design, and/or agency staff time to implement various components.
	Bacteria TMDL is somehow a misnomer. We are trying to reduce pathogen using indicator bacteria but not trying to reduce all bacteria.	Understand concern, but TMDL nomenclature is established by Regional Board
Heal the Bay	What is the basis for stating there is “reasonable assurance” that the outlined implementation approaches will lead to TMDL compliance? (page 17). There is no scientific or engineering basis presented in the document that connects the recommended implementation approaches to compliance with the TMDL.	Additional language added
	The Technical Memo provides a comprehensive list of implementation options which are fairly general. However, a common problem with implementation plans such as the Santa Monica Bay Bacteria TMDL (“SMBB”) Implementation Plan is that they are too general and won’t necessarily lead the way to compliance. Thus, the Technical Document should include implementation options that are more specific. What specific implementation options will be selected? In what order will they be implemented? For example, a logical first step is to remove all human sources (confirm no sewer lines are leaking, ensure no illicit connections, remove homeless encampments). A specific approach with all of these individual steps needs to be outlined at some point in the near future.	Agree more details are needed and would be included in a detailed Implementation Plan
	Specific details of an integrated water resources approach (“IRA”) are not outlined in this document. Moreover, there are minimum requirements for TMDL implementation strategies using an IRA. How will this TMDL be integrated with other watershed efforts? When will this joint planning be accomplished? Are the implementation plans for the Ballona Creek metals and toxics TMDLs incorporating ideas to also reduce bacteria levels? For instance, the treatment at the NOTF is currently proposed for bacteria but not metals and toxics.	Details are discussed at several points in the document and discussion has been expanded; points of coordination with other TMDLs are discussed under "Implementation Strategies of "Other Ballona Creek TMDLs"
	Ballona Creek metals and toxics TMDLs have been approved by State Board and EPA. (page 10).	Language updated
	Current Heal the Bay staff were not part of the discussion on the impacts related to diverting dry weather flow from the Creek and have not seen relevant studies or data supporting the assertion that there is no impact. Therefore, we can’t assume that no impact will occur. Is further study going to be undertaken to fully evaluate possible impacts? (bullet three, page 19).	See list of possible special studies

	Meeting the dry weather TMDL targets in the Ballona Creek Watershed may in fact be **less difficult** than the SMBB TMDL. (page 20). Compliance monitoring data reports show that Santa Monica Bay has many small freshwater outlets that will not be diverted and will likely exceed TMDL targets. Because of the scale and number of inputs to the beaches, the SMBB TMDL is very complex.	Each watershed has different challenges - BC has fewer outlets, but each drains much larger, more heavily urbanized watersheds. Text revised.
	Implementation Schedule	
	The final compliance deadline with the Ballona Creek Bacteria TMDL must coincide with the final compliance deadline for the SMBB TMDL (year 2020). Ballona Creek is a major source of bacteria to the Bay. Thus, achieving compliance with the SMBB TMDL relies on attaining targets set forth in the Ballona Creek Bacteria TMDL. Full compliance with water quality objectives in Ballona Creek **must** be achieved by 2020.	Schedule revised, additional discussion added.
	Timeframes for achieving summer dry weather (April 1 to October 31) and winter dry weather (November 1 to March 31) compliance should be the same as those set forth in the SMBB TMDL. (3 years after the effective date and 6 years after the effective date, respectively.)	Longer time frame left in schedule since none of the infrastructure is yet in place in BC compared to what was in place in SMB
	The draft implementation schedule incorporates a timeframe for requesting an extension of the summer dry-weather compliance schedule. What would the basis be for any extension? This is inappropriate, especially after the TMDL would be in place for only 18 months. What new information will be known by this time? If any relevant information surfaces, the TMDL will be reopened after five years.	Similar language to recently adopted Malibu Creek TMDL.
	Providing a one-year period to submit a comprehensive monitoring plan is excessive, especially considering dischargers plan to maintain sites that are currently being monitored and should have appropriate sampling methodologies etc. in place. The monitoring plan should be completed and approved by the Regional Water Board within 6 months from the effective date of the TMDL. At this time, the complete ambient monitoring program should commence.	Revised to submittal of final Monitoring Plan including Regional Board review within 12 months. Time is needed to monitoring and Cost-sharing agreements among responsible jurisdictions.
	Monitoring Program	
	The document should incorporate comments presented in the Regional Board Memo ("Memo") distributed to CREST participants on November 18, 2005 including:	
	1) "Regional Board staff recommend that ambient monitoring include wet-weather days." Memo at 4.	Agreed - compliance monitoring plan calls for systematic daily or weekly monitoring which would periodically include wet weather days (except inland stations when rainfall exceeds 0.5 in)
	2) "…limiting the program to the four locations suggested by Terry will not provide adequate data to characterize water quality." Memo at 3.	Monitoring section updated to state "1-2" sites in each named reach and potentially other unnamed tributaries
	3) "Regional Board staff concur with daily sampling of the estuary…" Memo at 4.	So noted
	4) A monitoring design should include several locations in each reach (i.e. top and bottom). Memo at 4.	Monitoring section updated to state "1-2" sites in each

	5) A monitoring design should include 6 reaches: Ballona Creek Reach 1, Ballona Creek Reach 2, Benedict Canyon, Sepulveda Channel, Centinela Creek, and Ballona Creek Estuary. Memo at 4-5.	named reach and potentially other unnamed tributaries
	The Technical Memo does not adequately address ambient monitoring. Ambient monitoring is extremely important to understand where to best focus implementation efforts. What ambient data are currently collected and what is the monitoring frequency? The Regional Board Memo states that "there is much yet to be learned, especially with regard to the frequency of exceedances of the single sample limits during wet weather and the identification of the drains responsible for the highest bacteria loads. Also, it may be important to monitor changing trends in bacteria levels." Memo at 1. Thus, it appears inappropriate to assume that the current monitoring program is sufficient.	Agree that there is more to learn which will be determined through a combination of transition of existing programs and special studies which is described in document
	The Technical Memo states that at least one location within each reach should be monitored to determine TMDL compliance. (page 38). Data from one monitoring location do not provide sufficient information to determine compliance. At an absolute minimum, compliance monitoring should take place where significant inputs occur and at the outlet. The Regional Water Board Memo outlines a more comprehensive monitoring plan.	Monitoring section updated to state "1-2" sites in each named reach and potentially other unnamed tributaries
	E. Coli is a subset of fecal coliform, so a 1:1 ratio translator is inappropriate. A complex special study would need to be undertaken to determine the appropriate ratio. Another option would be to simply sample for fecal coliform in Reach 1.	Either option is potentially viable with adequate demonstration. Text changed to delete reference to 1:1.
Caltrans	p.1 line 2: remove "that'	no action
	p.2 para. 2 second to last line: after "channels" add "that" and drop the "ing" from "preventing"	change accepted
	p.2 last para. 1st line: remove "and" make TMDL possessive or leave "and" and follow it with "its"	change accepted
	same para.: The last sentence is an opinion that could be true of any waterbody. It is apparently stated as a lead to justify additional and perhaps unnecessary monitoring (see p. 15 para. 1 and p. 17 middle of the page.) in Reaches 1 and 2 and Sepulveda Channel. These areas are not on the 303d list.	Corrected - reaches are on 303d list
	p.10 para. 3 third line: "Toxics" should be "metals"	no action
LASG Watershed Council	Is 18 year timeline for compliance schedule consistent with SMBB?	Revised to submittal of final Monitoring Plan including Regional Board review within 12 months. Time is needed to monitoring and Cost-sharing agreements among responsible jurisdictions.
	Cost for neighborhood recharge seems high -- is this based on the Sun Valley Park project? Installation costs for the infiltration system at Broadous School in Pacoima was considerably less.	Further discussion on cost range added
	p. 1 Move paragraph beginning "This Implementation Strategy has been developed through a collaborative…" below the paragraph beginning "The Preferred Strategy incorporates elements from a wide range of activities…."	accepted
	p. 4, paragraph 3, line 5: remove "Total Maximum Daily Loads ( )"	accepted
	p. 5, paragraph 2: change "TDML" to "TMDL"	accepted

	p. 13 Remove the text "For comparative purposes, an alternative strategy that primarily focuses only on Bacteria TMDL compliance primarily through a capture, treat and discharge and/or reuse approach is described in the following sub section."	accepted
	p. 16, bullet 3: formatting change to bold text	accepted
	p. 20, 1st paragraph under "Implementation Strategies": change "allows" to "allow"	accepted
	Table 4: Is "18+ years" consistent with SMMB TMDL deadline?	Revised to submittal of final Monitoring Plan including Regional Board review within 12 months. Time is needed to monitoring and Cost-sharing agreements among responsible jurisdictions.
	p. 26, last paragraph: change "encourage and assist in providing cisterns..." to "promote and assist…."	accepted
	p. 27, paragraph beginning "Operations and maintenance costs for cisterns…": change "managed the flows…" to "manage the flows"	accepted
	p. 37, paragraph beginning "Existing monitoring efforts are expected…": Change "implementation plan as well support trends…" to "implementation plan as well as support trends…".	accepted
EPA	p. 1 re: the statement "As shown in the analysis, there is a reasonable assurance that both the Preferred Strategy and the Alternative Strategy will result in compliance with the water quality standards of both the Ballona Creek and the Ballona Estuary.": We make this statement several places in the document, yet there is no place where this statement is documented	Additional language added under potential Implementation Strategies for Ballona Creek Bacteria TMDL
	p. 2 re: the statement "The increased runoff is caused by decreased infiltration of rainwater within the watershed due to increased area of imperviousness.": Missing Figure 1.	Figure 1 added
	p. 4 re: "The Stakeholder Process described in the following section has identified some potential implementation strategies; however, there is no requirement to follow the particular strategies proposed herein as long as the maximum allowable exceedance days are not exceeded.": This is the first time in the document that we mention the exceedance-day concept. It might be better to say something more generic here like “so long as water quality targets defined in the TMDL are achieved”	accepted
	p. 8, Figure 2a and 2b: Make the headings for Tables 2a and 2b consistent.	Accepted
	p. 10 re: "Options involving flow source control (both institutional and dispersed, watershed-wide structural solutions) and the treatment and return of tributary and/or Creek flows ranked highest when evaluated cumulatively against the range of implementation objectives, as shown above in the summary bar charts (Figures 2a and 2b).": I don’t see the separation for the dry-weather summary. All of them ranked about the same. On the wet-weather summary, structural flow and treatment ranked higher than the others	Modified text slightly. Note that the wet weather discussion is consistent with ranking.
	p. 10 re: "….a Metals TMDL, and a Toxics TMDL both adopted by the Regional Board in July of 2005 and expected to be approved in the near future by the State Water Resources Control Board and the USEPA Region 9.": Update this language to indicate that these TMDLs have now been approved.	accepted
	p. 11 re: "These projects and activities generally address one or more of the implementation option groups noted in Table 1 including" Also where is the bullet for flow diversion?	no change

	p. 11 re: "These projects and activities generally address one or more of the implementation option groups noted in Table 1 including": Why don't we stick with the same order as in Table 1. Also where is the bullet for flow diversion?	Diversion not part of Ballona Creek Watershed Management Plan
	p. 12, paragraph 1, re: "This effort has been initiated by the Southern California Coastal Water Research Project (SCCWRP).": Good, but we should note that this effort was a collaborative effort with the City of Los Angeles, the Regional Board, EPA and others.	accepted
	p. 13 re: "The Alternative Strategy would require new facilities (multiple new treatment plants) and diversion facilities for sending wet weather flow to new treatment facilities, which may return flow to the creek after treatment, and all dry weather flow to Hyperion Treatment Plant (HTP), which would transfer the water completely out of the creek.": I found this sentence to be confusing	Revised for clarity
	Table 3: capitalize items under "Option Group" Column Heading	accepted
	Table 3: Change "Divert all watersheds to sewer system (reuse optional)" to "Divert all watersheds to sewer system for treatment (reuse optional)"	accepted
	Table 3 re: Alternative Strategy for Option Group Treat Discharge/Return: Dry Weather - ???	clarification provided
	p. 18, paragraph 1: Change "This assumption will be periodically reviewed at future implementation milestone points." to "This assumption will be periodically reviewed through evaluation of monitoring data at future implementation milestone points."	accepted
	p. 21 re: " Use maximum wet weather storm event volumes for 0.45 inch rainfall event. Exceedances at 90 percentile rainfall year may be greater than allowable under TMDL, but still significantly reduced for many years and under 17 days for some years.": You may want to list the assumptions that are common to both the preferred and alternate strategy first, then indicate the additional assumptions that are unique to the alternate strategy.	no change
	p. 21 re: "Stakeholders also recognize that fully meeting the dry weather TMDL targets in the Ballona Creek Watershed including the estuary may be more difficult than in the SMBB watersheds due to the differences in stormwater infrastructure.": It is still unclear to me why Ballona Creek would be much more difficult than in the other SMB watersheds.	Some changes made in schedule discussion.
	p. 23 re: "Revising the TMDL will not create a conflict in the interim, since the Santa Monica Bay Beaches Bacteria TMDL does not require compliance during winter dry-weather or wet-weather until six and ten years, respectively, from the effective date of the TMDL.": Why not put in the actual year, since we know the effective dates for the SMB Bacteria TMDL	Revised - left end date open
	p. 25 re: Institutional Flow and Bacteria Source Control Costs: I recommend keeping the format similar to that in Table 1. That is Have a section on Institutional Flow and a separate section on Bacterial Source Control.	accepted
	p. 25: Insert "Bacterial Source Control Costs" before paragraph beginning "A number of similar source control measures …."	accepted
	p. 25: Insert "Institutional Flow Control Costs" before paragraph begi	accepted
	p. 26: tighten up language in the 4 paragraphs beginning "The City of Los Angeles IRP looked at studies being done…." and ending "….the total capital cost would be $7.5 million."	Minor edits made
	p. 28: tighten up language and remove redundancies in text and table of the paragraphs beginning "Additionally, the IRP estimated the number of cisterns …" and ending "…. Operation and Maintenance Costs - $0.2 M/yr."	Minor edits made

	p. 30 re: "Sand filters are specifically designed to treat urban runoff in high density areas, and are proposed as part of the Ballona Creek Metals TMDL.": I don't know if this is a big deal or not but the TMDLs don't proscribe solutions. So we might want to soften this a bit.	accepted
	Edits to Table 9	accepted
	p. 39 Add "Source characterization" to list of special studies	accepted; Don to review
	p. 39 Add " Water quality modeling to better define the effectiveness of implementation strategies." to list of special studies	accepted; Don to review
	p. 39: Change" Analyses and studies to evaluate unintended impacts (i.e. minimum flow to creek) when implementing BMPs and other implementation strategies." to : Analyses and studies to evaluate unintended impacts (i.e. minimum flow to creek) when implementing BMPs and other implementation strategies. Investigating potential impact to biological resources in Creek should diversion of all dry weather flow from the Creek be required or proposed."	accepted; Don to review
Tech. Comm. Meeting	Additional language explaining "reasonable assurance".	Additional language added under potential Implementation Strategies for Ballona Creek Bacteria TMDL
	Additional language expanding on IRP approach - in Intro, and on pg 20 expanding/explaining IRP details; and again explaining in schedule section that IRP approach can extend the 10 year schedule.	Revisions made
	The two row changes to the December schedule table, adding the 6 yr and 10 yr rows from the November schedule, and deleting (?) the 18 yr end date. With some language in the text of the schedule section arguing for 18 yr total schedule - with agreement for 2021 compliance at the Estuary/wave wash?	Revisions made
	The two language additions to the Monitoring section suggested by Terry: "1-2 monitoring locations in each named reach", and "and possibly/potentially additional tributaries".	Revisions made
	Range of costs for Preferred Alternative. Maybe some language suggesting that some parts of this cost are/will be carried by other agencies carrying out other objectives of the IRP - e.g. smart irrigation installed by DWP. My understanding is that DWP has done detailed feasibility and cost and will be implementing, at least for City properties, in the near future, with expansion down the road. These plans will go forward regardless of TMDL implementation, but can be incorporated under the heading of IRP implementation.	Discussion added under cost section
General	Additional grammatical and typographical comments will all be addressed.	Revisions made