

San Diego Bacteria TMDL Meeting, 04/18/16

Meeting Notes, Action Item List, Decision Record, and Parking Lot

MEETING NOTES

The meeting summary is organized around major points in the meeting agenda, which is included at the end of the meeting summary, along with a list of attendees. Agreements are **highlighted in bold**. Action items are listed at the end of the meeting summary.

1. *Meeting notes, action items, agenda, etc.*

The purpose of the meeting was to:

- Review the Cost Benefit Analysis (CBA) scenarios
- Review the draft Introduction and Problem Statement
- Discuss implementation strategies for addressing human sources
- Identify next steps

Under item #2 in the March 23 meeting notes, Jimmy Smith notes that there is a caveat from the Board staff's perspective on agreement with the sequence of topics and deliverables, particularly the expectation that issues will be completed in 1 or 2 meetings. This pace may not be feasible given the time needed for review and the lead time often needed to ensure participation of other relevant Board staff in workgroup meetings. Participants acknowledged these constraints and noted that this expectation may not always be met.

With regard to an action item from the March 23 meeting, Jimmy Smith will distribute the memo of concerns to the State Board for review by the workgroup (**AI**), with the understanding that the memo will be signed by the Regional Board and will not be a collective document from the workgroup as a whole.

With regard to an action item from the March 23 meeting, the MS4s may not be the best sources for local studies and information about leaking sewage infrastructure and other human sources. Jimmy Smith agreed that Board staff will look through their files for annual reports from wastewater agencies (**AI**) to determine whether useful information exists in those documents. This might help fill the data gap related to the threshold level of information needed to include sewer agencies in discussions about human sources. In addition, Clint Boschen will distribute the inventory of reports and information already in hand so that workgroup members can confirm that all relevant information has been sent to Clint (**AI**).

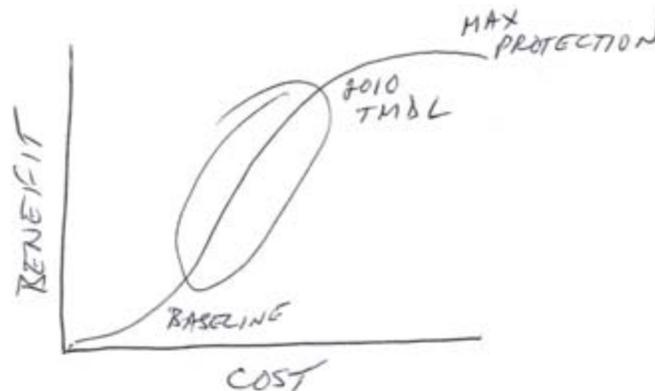
2. *Cost Benefit Analysis scenarios*

During and after the permittees' planning meeting, the longer list of CBA scenarios was condensed and reorganized with the intent of making them more understandable to the CBA Steering Committee and its contractor. Several items that had previously been identified as distinct scenarios are now treated as input factors (the Components columns) that can be adjusted. This reorganization more clearly separates variables and endpoints but the actual content of the previous list has not been changed.

Discussion resulted in the following clarifications and suggested revisions:

- The distinctions between the first three scenarios in the new table need to be clarified more clearly, e.g., Current Conditions refers to the situation as it exists today while the 2010 TMDL refers to conditions that would exist in the future after full implementation of the TMDL
- Some wording was changed for clarity, e.g., "hybrid" was replaced by "risk based"

- These descriptions may still not be ready to submit to the contractor; however, it was pointed out that the contractor should have experience in helping clients clarify and prioritize scenarios for analysis
 - Scenarios will need to be prioritized at some point in the near future (AI)
- It may be useful to include scenarios that “bookend” the range of options in terms of cost and benefit in order to provide context for other scenarios where the curve changes more steeply (contribute more to the variance of the result)
 - Input from the Regional Board will be needed to define “maximum protection”; this might be based in part on results of the Surfer Health Study
 - Jimmy Smith stated that he considers “illness” to include more than just gastrointestinal illnesses; however, it is not clear how to include other illnesses in the analysis, especially when comparing to scenarios based on the TMDL or USEPA criteria
 - Perhaps one approach is to acknowledge the larger universe of illness risks and then back down to something that be measured and related to water quality



- Implementation costs should include potential sources other than the MS4; this could be an enlightening part of the analysis
- The 2010 TMDL targets scenario should be run with different implementation approaches
- The “baseline” scenario depends on what the term means. This is not meant as a regulatory baseline but as the starting point, or basis of comparison, for the analysis. A major goal is to show the value of different investments compared to the 2015 condition
 - Avoid terms like “baseline” that can have multiple meanings depending on the context
 - Storm size and frequency can have a large impact on conditions. It may therefore be necessary to consider a multiyear starting condition; however, the drought has been so long that even going back several years would not capture much additional variability
 - Trying to construct a starting condition that covers multiple years is complicated by the fact that useful public health data are available for only 1 – 2 years
- “Affordability analysis” refers to a process defined by USEPA to determine a reasonable rate of funding based on factors such as median income. For example, if median income (and thus the likely tax base) is lower, then the implementation schedule would be extended. This guidance provides a validated method for evaluating scheduling options
- “Efficient BMP implementation” refers to addressing all necessary non-structural implementation first (this was renamed “opportunistic BMP implementation”). It could also involve tying the BMP implementation schedule to the Capital Improvement Plan (CIP) schedule because implementing BMPs along with scheduled capital improvements would result in substantial cost savings compared to retrofitting. It could, however, result in a longer implementation schedule
 - BMP implementation could be included in the current effort to rewrite street design manuals so that this becomes a part of the normal way of doing business as a municipality
 - This would move toward fulfilling the fundamental goal of the Clean Water Act and Board staff were supportive of this concept in principle

- Within the scenario dealing with schedule options, the affordability analysis and the opportunistic BMP implementation options are important bookends; the schedule could be one of the largest sources of variability in the CBA
- The restoration approach was described more fully as an effort to recognize opportunities to achieve multiple benefits, based in part on knowledge that streams in better ecological shape may need less pollutant reduction
- Board staff are not supportive a high flow suspension but are willing to see it included in the analysis. Discussion clarified that this would suspend the beneficial use during certain specific conditions, not remove it completely. The same is true of the dry flow suspension option. Both options are risk based. In high flows, other risks are much larger than the risk of ingestion and illness. In dry or very low flow conditions, there is so little water that the risk of ingestion is extremely small
- It was agreed that the CBA will focus only on the REC 1 beneficial and not include REC 2
- Estimates of costs are clearer than estimates of benefits and these may therefore need to be packaged differently in the CBA

The consultant team will prepare a revised list of CBA scenarios (**AI**).

3. Problem Statement

(see DRAFT SD Bacti Into and Problem Statement – revised 04-11-16.docx distributed with this meeting summary)

Ashli Desai walked through the revisions to the draft Introduction and Problem Statement, identifying where the significant changes have been made. A number of initial revisions were suggested and Board staff were asked to provide comments on the draft by May 10, 1 week prior to the next workgroup meeting.

4. Addressing human sources

(see Mtng Bacteria TMDL Workgroup 04-18-16 Sources and Implementation.pptx distributed with this meeting summary)

Given time constraints, discussion focused primarily on the last bullet of Slide #2, related to mechanisms for including additional parties in the process. It would be inappropriate for the workgroup to develop implementation strategies for other parties and the best approach might be for the Regional Board to use its permitting or convening authority to help initiate broader participation in additional, separate workgroups. It is hoped that the source analysis will provide the basis for convening such workgroups that involve other sources. This will require identifying and overcoming institutional boundaries and impediments in order to create a more coordinated or collaborative approach to human sources.

Slides 3 – 5 were quickly described in order to provide some context for Board staff’s review prior to the next workgroup meeting.

5. Next steps

See the Workgroup Action Items Report for a complete list of all action items and their status. The next meeting will focus on further discussion of sources, CBA scenarios, and the operation of sewage collection systems.

6. Next meeting date

The next workgroup meeting will Tuesday, May 17, from 1:00 – 4:00 PM, per the agreed meeting schedule.

Attendees

Regional Board: Cynthia Gorham, Jeremy Haas, Michelle Mata, Jimmy Smith

San Diego City: Drew Kleis, Ruth Kolb

San Diego County: Todd Snyder, Jo Ann Weber

Orange County Public Works: Jian Peng

Team: Dustin Bambic, Clint Boschen, Ashli Desai, Chris Minton, Brock Bernstein

Agenda

San Diego Bacteria TMDL Workgroup Meeting
San Diego Regional Water Quality Control Board
Meeting #14-April 18, 2016 9:30 am to 12:00 pm

1. Meeting Notes, Action Items, Decision Points, and Parking Lot Review (9:30-9:45 am)
 - a. Purpose: Review meeting notes, action items, parking lot and decisions from February meetings
 - b. Handout: Meeting notes with action item, decision points, and parking lot tables
 - c. Relevant studies: None
 - d. Decisions/Desired Outcomes: Agreement on meeting notes, action items and decisions
2. Cost Benefit Analysis Scenarios (9:45-10:15 am)
 - a. Project Element: Cost Benefit Analysis
 - b. Purpose: Discuss CBA scenario descriptions
 - c. Questions/Desired Outcomes: Are descriptions complete and sufficient?
 - d. Handout: CBA scenario descriptions
 - e. Relevant studies: Cost Benefit Analysis
 - f. Previous discussions: March meeting
 - g. Decisions/Desired Outcomes: Agreement on CBA scenario descriptions
3. Introduction and Problem Statement (10:15-11:00 am)
 - a. Project Element: TMDL Introduction and Problem Statement
 - b. Purpose: Discuss content and organization of draft problem statement
 - c. Questions: Does the problem statement include all necessary content? Does it appropriately frame the reopener process and the changes that will be made?
 - d. Handout: Draft Introduction and Problem Statement
 - e. Relevant studies: None
 - f. Previous discussions: None
 - g. Decisions/Desired Outcomes: Discussion of draft statement and input on changes needed, if any
4. MS4 Implementation Strategies for Addressing Human Sources (11:00-11:45 am)
 - a. Project Element: TMDL Implementation Plan
 - b. Purpose: Discuss options for implementing TMDL for MS4s with a focus on human health risk
 - c. Handout: None
 - d. Relevant studies: None
 - e. Previous discussions: None
 - f. Decisions/Desired Outcomes: Primarily information item. Gather initial thoughts from RWQCB on implementation approaches that focus on human health risk.
5. Action items and agenda items for next meeting (11:45 pm-12:00 pm)
 - a. Purpose: Summarize action items and discuss potential agenda items for next meeting

San Diego Bacteria TMDL Workgroup Action Items Report

Key to status colors:

- **Green** indicates a completed deliverable
- **Blue** indicates greater than 30 days until the deliverable is due
- **Yellow** indicates a deliverable is due within 30 days
- **Red** indicates an overdue deliverable



Mtng Date	Deliverable	Assigned To	Due Date	Status	Comments
08/27/15	List of studies, completion dates, value added, implications for reopener	Consultant team	09/02/15	●	
08/27/15	Distribute draft cost sharing agreement	Todd Snyder	09/10/15	●	
08/27/15	Review past MOUs to assess whether useful concepts or language can be borrowed for this MOU	Drew Kleis, Ruth Kolb	09/10/15	●	
08/27/15	Discuss cost sharing agreement	Workgroup	09/10/15	●	
08/27/15	Finalize MOU	Workgroup	09/10/15	●	
08/27/15	Michelle Mata to meet with small group to review planned overall approach and its relationship to schedule; develop picture of how pieces fit in logical progression	Michelle Mata, Clint Boschen, Chris Minton, Ashli Desai, key permittees	10/7/15 meeting handout	●	
09/0/15	Evaluate implications of 32 vs. 36 illness rate using available monitoring data from creeks and beaches	Chris Minton, Dustin Bambic	10/7/15 meeting presentation	●	
09/10/15	Frame a more formal description of how a risk-based framework could be used in the TMDL	Ruth Kolb	10/7/15 meeting handout	●	
09/10/15	Develop options for calculating geomeans that account for varying intensities/frequencies of monitoring events	Chris Minton, Dustin Bambic	10/7/15 meeting presentation	●	
09/10/15	Expand the example table (single sample vs. STV) to include a column showing how the geomean compares to the single sample and STV results	Chris Minton, Dustin Bambic	Undefined, but soon	●	

Mtng Date	Deliverable	Assigned To	Due Date	Status	Comments
09/10/15	Prepare a set of scenarios showing a range of comparisons across the options presented	Chris Minton, Dustin Bambic	10/7/15 meeting presentation	●	
10/07/15	Prepare background information on the basis for the 32 vs. 36 illness rates	Chris Minton, Dustin Bambic	10/29/15 meeting	●	
10/07/15	Add language to draft TMDL targets memo to explain the applicability of the reference reach analysis in the risk-based framework	Chris Minton, Dustin Bambic	10/29/15 meeting	●	
10/07/15	Prepare a draft decision flow chart	Ashli Desai, Clint Boschen	10/29/15 meeting	●	
10/07/15	Prepare a draft Technical Report outline	Team	12/10/15 meeting	●	
10/29/15	Prepare background information on STV	Team	11/12/15	●	
10/29/15	Provide comments on draft decision flow chart and draft TMDL targets memo	RWOCB staff	11/6/15	●	
10/29/15	Provide revised TMDL targets memo and flow chart based on comments	Team	11/12/15	●	
11/19/15	Provide more detail on analyses needed to compare the two illness rates, along with cost and time estimate	Team			Hold off for now
11/19/15	Approach State Board about Workgroup meeting with them as a focus group	Jeremy Haas	12/10/15 meeting	●	
11/19/15	Examine the 13241 requirements to identify what information would be needed to address those	Team		●	Completed and ready to insert into draft documents when needed
11/19/15	Add the caveat to the draft language that the 32 illness level is a "working assumption"	Team	12/10/15 meeting	●	
11/19/15	Describe the statistical background and rationale for the EPA 2012 criteria	Team		●	
11/19/15	Add a minor revision to the language in the alternative on Slide 7 to capture the potential for regional linkages	Team	12/10/15 meeting	●	
11/19/15	Develop ideas for prototypes or case studies of site-specific objectives that would illustrate different issues such as natural source exclusion	Team	TBD		Longer term
11/19/15	Develop revised language related to allowable exceedance frequency	Team		●	
11/19/15	Prepare an explanation of "safe" in different contexts and what the implications could be for action in response to different types of monitoring outcomes	Team			Longer term

Mtng Date	Deliverable	Assigned To	Due Date	Status	Comments
1/26/16	Prepare data comparing STV and SSM to send to SWRCB and RWQCB	Team	03/15/16		
1/26/16	Make the suggested minor edits to the list of items of potential concern on bacteria policy for SWRCB.	Team will prepare initial list and provide to RWQCB. RWQCB will send to SWRCB.	Dustin Bambic		
02/24/16	Prepare data memo comparing STV to SSM to send to SWRCB. Send to entire team for review.	Dustin Bambic	03/15/16		
02/24/16	Briefly raise the issue of the potential contribution of leaking sewer collection systems to the bacteria problem at the March 4 SCCWRP Commission meeting	Todd Snyder	03/03/16		
02/24/16	Prepare a white paper summarizing evidence for the role of leaking sewer collection infrastructure. Provide data, references, and other information to Clint Boschen, who will work with Dusting Bambic and Chris Minton to prepare a draft white paper that would be included as part of the targets and sources section of the TMDL / Basin Plan Amendment	Team	04/15/16		
02/24/16	Begin preparing written descriptions of implementation pathways building on the concepts agreed on during the past two workgroup meetings.	Team	03/23/16		
02/24/16	Clarify whether State Board's Plan will allow Regional Boards to establish more stringent targets, using other indicators, than identified in the State Plan.	Regional Board staff	03/23/16		
03/23/16	Revise memo to State Board to include mention of sewer collection system and revision of AB411 standards to be consistent with EPA 2012 criteria. Distribute to workgroup for review.	Jimmy Smith	04/15/16		
03/23/16	Develop more detailed written descriptions of the CBA scenarios.	Team	04/15/16		
03/23/16	Submit any additional local information on studies of leaking infrastructure to Clint Boschen.	All	04/15/16		
03/23/16	Individual sponsors of or participants in the San Diego River study will encourage Ken Schiff to develop estimates of the range of leaking sewage needed to produce observed amounts of human markers.	All	04/15/16		
03/23/16	Invite retired sewage system expert to next meeting	Chris Crompton	04/15/16		

Mtng Date	Deliverable	Assigned To	Due Date	Status	Comments
03/23/16	Forward specific questions related to the operation and monitoring of sewage systems to Michelle	All	04/15/16	●	
04/18/16	Distribute memo for State Board to workgroup for review	Jimmy Smith	05/01/16	●	
04/18/16	Review sewer agency annual reports for useful information about infrastructure and human sources	Board Staff	05/15/16	●	
04/18/16	Distribute inventory of sources studies to workgroup	Clint Boschen	05/01/16	●	
04/18/16	Prioritize CBA scenarios, perhaps in consultation with contractor	Workgroup	??		
04/18/16	Prepare updated list of CBA scenarios	Consulting team	04/22/16	●	
04/18/16	Provide comments on draft Intro and Problem Statement	Board Staff	05/10/16	●	

San Diego Bacteria TMDL Workgroup Decision Record

Number	Date	Decision	Type	Yes	No	Abstain
2015-1	09-02-15	Allow two weeks for review of meeting notes	Consensus			
2015-2	09-02-15	Michelle Mata to take on central coordinating role	Consensus			
2015-3	09-02-15	Materials for discussion/review distributed minimum of 10 calendar days before meeting	Consensus			
2015-4	09-02-15	Meeting agendas to include decision points, discussion lead, intended outcomes, and reference to background documents	Consensus			
2015-5	09-02-15	Use 9/10 meeting as trial run for planned approach to more detailed discussion	Consensus			
2015-6	09-10-15	Future discussions of methods for calculating exceedance rates and related topics will account for different settings (freshwater, marine, bays) where this has important implications for the policy	Consensus			
2015-7	10-07-15	Overall schedule of completion between December 2017 and April 2018 with target of September 2016 for technical report	Consensus			
2015-8	10-07-15	Documentation and justification of assumptions will be provided in technical report	Consensus			
2015-9	10-07-15	Use of risk-based framework is appropriate	Consensus			
2015-10	10-29-15	Both the 36 and the 32 per 1000 illness rates are scientifically defensible and the 32 per 1000 illness rate represents an incremental improvement in water quality in accordance with the 2012 USEPA criteria. The 32 per 1000 illness rate has been selected with the possibility of revision based on the results of the Cost Benefit Analysis and/or if the SWRCB selects the 36 per 1000 illness rate as part of the Revision of Bacterial Objectives.	County San Diego, City of San Diego and RWQCB agreed. Pending final agreement from Orange county			

2015-11	10-29-15	<i>E. Coli</i> as the single indicator for freshwater and Enterococcus as the single indicator for marine waters	Consensus			
2015-12	11-19-15	Documents be worded to reflect that the choice of the 32/1000 illness rate is a working assumption. Revises Decision #2015-10	Consensus			
2015-13	11-19-15	The geometric mean is an appropriate TMDL target for dry weather because it is a good indicator of the level of risk over time, but additional thought needs to be given to the details of monitoring, averaging period, etc. in order to best measure trends in risk over time	Consensus			
2016-01	04-18-16	The Cost Benefit Analysis will include only REC 1 beneficial use, not REC 2	RWQCB, agreed by all other participants			

San Diego Bacteria TMDL Workgroup Parking Lot

Meeting Date	Issue	Tentative Meeting Date for discussion
9/10/15	Relationship of monitoring locations and procedures to compliance	TBD
10-29-15	Purpose of Cost Benefit Analysis Study and alternatives to be considered in the study	December or January
10-29-15	Need for 13241 analysis for proposed objectives	TBD
10-29-15	Methodologies for monitoring and analysis	TBD
10-29-15	Approach for addressing non-MS4 contributions (particularly wastewater) in TMDL	TBD
11-19-15	Align the definition of dry weather in the TMDL and the permit	TBD