

# San Diego Bacteria TMDL Meeting, 05/17/16

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 comments on the draft Introduction and Problem Statement
- Review the draft Targets section
- Discuss implementation strategies for 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. Introduction and Problem Statement**

(see DRAFT SD Bacti Intro and Problem Statement\_SDWB Comments 05-09-16.docx distributed with this meeting summary)

The draft Introduction and Problem Statement was distributed prior to the meeting and discussion focused on comments from the Regional Board staff. Key points included:

- It would be more useful for Board staff if the documents were written less to match the TMDL format and structure and more to explain the technical background and rationale for key areas of agreement, new directions, and recommended changes. The report does not need to include all the pieces of the TMDL; Board staff can take the time to reshape the technical document into the needed EPA format
  - This may require revisiting the earlier statements of goals

- Consider the format used for comments on the State Board's proposed policy, e.g., issue, comment, recommendation, technical backup/rational
- Board staff are especially interested in seeing details on how goals will be accomplished, i.e., the implementation plan
- This technical support document is due by December 2016
  - With only time for approximately 5 meetings before then, it is crucial that the permittees put forward their detailed proposals so these can be discussed. These include: use of a risk-based approach to guide future efforts, addressing the low-risk (from illness) situation presented by high flows, moving compliance points to locations with greater intensity of the beneficial use, continued work on improved indicators (especially direct measurement of pathogens), using the Surfer Health Study as the basis for a regional site specific objective, increasing the focus on high-risk human sources, expanding the management framework to include other sources and the agencies responsible for their regulation/oversight
- Discussion of whether to focus first on TMDL targets and then look at implications for the Basin Plan, or instead start with a broader look at the Basin Plan and then narrow in on TMDL did not result in a clear decision
  - The broader Basin Plan perspective would be more useful to Board staff and then what is relevant to the TMDL could be carved out of that
  - A site specific objective could also be accomplished within the Basin Plan
  - On the other hand, members of the consultant team believed that it would be more functional to start with the TMDL because it is more specific and then implications for the Basin Plan could be identified
- P. 4, last sentence of para. 2: this (i.e., a focus on reduction of human health risk rather than only focusing on reducing indicator loads) is an important statement because it captures the intent of the workgroup and helps frame the perspective and many of the recommendations. Move this statement to the front of the document so that the document begins with the philosophy of how we view beneficial uses and water quality objectives and then move to problem solving
- P. 5 re upcoming changes to the 303(d) list: the draft listings report will be available this June with a public workshop in July. Board staff can present a preview at the next workgroup meeting
  - The data cutoff for the 2016 listings report is 2010 and thus the findings are out of date in some places; newer studies are more relevant
  - Some beaches saw improvements between 2008 and 2010, but the actual data used in the comparison should be described in order to better define the degree of improvement. It's not possible to delist based simply on evidence of current status because of the way the policy requires historical data to be used in the assessment. However, if there are additional information that explains the causal link between improvement and specific actions, then delisting is possible. Permittees will work with Helen Yu to identify successful actions tied to observed improvements (**AI**). Permittees will also provide more recent data that could support delistings (**AI**). This could provide the basis for some delistings
  - Delisted locations will not necessarily be removed from the TMDL but they will not need load reduction plans if they meet the objective. However, monitoring would be needed to ensure their continued compliance
  - Delisting is desirable because it validates the success of management efforts and demonstrates that progress is being made

### **3. Targets section**

(see DRAFT SD Bacteria TMDL – Numeric Targets 05-11-16.docx distributed with this meeting summary)

Discussion moved immediately to Table 3-1 because this captures the key elements of the proposed approach, which separates creeks from ocean beaches and includes a regional site specific objective for ocean beaches based on results of the Surfer Health Study. Key discussion points included:

- Change creeks and beaches to freshwater and saltwater
- Regional Board staff and permittees are on the same page in terms of using the single sample value and the geometric mean as opposed to the statistical threshold value (STV)
  - Because this differs from the State Board's proposed use of the STV, it will be important to continue discussions with the State Board (including Jonathan Bishop) about the value of providing Regional Boards the flexibility to implement the policy in different ways as long as the level of protection is the same or greater
- The largest issue is the proposal for a regional site specific objective based on the Surfer Health Study
  - This is based on the judgment that the local studies are more directly relevant to conditions in the San Diego region than are the studies that form the basis for the USEPA criteria
  - This will require more discussion and justification in the technical support document (AI)
  - The upcoming workshop (sometime in June or July) to be convened by SCCWRP is expected to provide guidance on selecting targets for a site specific objective. Workgroup members should prepare for the workshop (AI) by identifying outstanding technical and process questions
- If the decision is to proceed with a site specific objective, then a key issue is the identification of the illness rate that will provide the basis for the target
  - The 32/1000 rate reflects the USEPA criteria and the pending State Board criteria
  - However, it may be difficult to justify the 32 rate when the Surfer Health Study has demonstrated that a rate of 12/1000 (in wet weather) has already been achieved
  - One approach might be to set the target at 32 but then apply an antidegradation approach where better conditions have been documented. However, the antidegradation policy requires the identification of high quality waters, something that might be possible for ocean beaches that are substantially less risky than the USEPA and State Board criteria
  - It may be possible to set the target at 32 but then set the allocation (e.g., of allowable exceedance days) to reflect the 12 illness level
  - An important question is the degree to which the results of the Surfer Health Study can be applied to the broader population, especially children. Although children were not observed surfing at the height of storms, they may be exposed in the days following storms when pathogen levels, and risk, are still elevated. Discussion focused on the possibility of providing partial answers to this question because of the lack of any data; other public health policies (e.g., USEPA's national criteria) take this approach when faced with incomplete information
  - It may be possible to mine data from other epidemiology studies on the risks to children
- The meat of the TMDL is the set of implementation actions and targets are only a small piece
  - Who performs the implementation actions (e.g., only MS4, other parties) is important for the TMDL and will also inform the risk based approach as expressed in the Basin Plan
- Board staff will provide comments on the draft Targets section by one before the next meeting in June (AI)

#### **4. Implementation strategies for human sources**

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

Key discussion points included:

- It will be critically important to think about and then define the process(es) to be used to involve other potential sources in discussion
- Key implementation questions for the TMDL are the degree to which MS4s will be held responsible for other sources and whether the identification of other high-risk sources will change the MS4 allocations and load reduction requirements

- One approach would be to focus initially on actions to address high-risk sources and then to move in a later phase to load reductions
- A risk-based approach to implementation would necessitate changes to MS4 monitoring plans, which currently focus almost entirely on FIB
  - Any efforts to develop regionally coordinated monitoring and source tracking that includes additional sources would best be initiated by the Regional Board because of their convening authority
- Although the San Diego River study identified the HF193 marker virtually everywhere, differences among locations nevertheless helped to prioritize follow-on source tracking studies which were successful in identifying likely sources
- An approach that prioritizes the highest risks (e.g., based on human markers) will still have to demonstrate a connection to the targets which are based on current FIB indicators
  - It will take time to move more fully to a risk-based approach
  - A phased approach (i.e., high risk first followed by addressing targets) is a possibility
  - Additional studies might succeed in developing a relationship between HF183 and FIB that could be used to integrate the two approaches
- The technical tools do not yet exist to do source tracking in wet weather. This is a constraint on the risk based approach that should be acknowledged in the implementation plan
- While the permittees desire the Board to use its authorities and influence to engage other sources, Board staff hope that agencies within a single jurisdiction (e.g., City of San Diego) will take the initiative to work collaboratively. However, there are many instances where agencies are completely separate and not under the umbrella of a single municipality. In addition, existing permits often do not contain specific incentives for collaboration. Initial steps toward coordination and collaboration may require a combination of “carrots” and “sticks”

## **5. Next steps**

See the Workgroup Action Items Report for a complete list of all action items and their status. The previously scheduled workgroup meeting in June will be rescheduled because of the need to hold a longer CBA meeting on that day.

## **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: Ruth Kolb

San Diego County: Todd Snyder, Jo Ann Weber

Orange County Public Works: Chris Crompton, Jian Peng

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

## **Agenda**

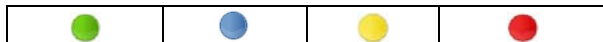
San Diego Bacteria TMDL Workgroup Meeting  
San Diego Regional Water Quality Control Board  
Meeting #15-May 17, 2016 1:00 pm to 4:00 pm

1. Meeting Notes, Action Items, Decision Points, and Parking Lot Review (1:00-1:15 pm)
  - a. Purpose: Review meeting notes, action items, parking lot and decisions from April meetings
  - b. Handout: Meeting notes, schedule reminder, action items, decision points, and parking lot tables
  - c. Relevant studies: None
  - d. Decisions/Desired Outcomes: Agreement on meeting notes, action items and decisions
2. Introduction and Problem Statement (1:15-2:00 pm)
  - a. Project Element: TMDL Introduction and Problem Statement
  - b. Purpose: Discuss RWQCB comments on 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: April 18, 2016
  - g. Decisions/Desired Outcomes: Finalization of problem statement, if possible
3. Target Section (2:00-3:15 pm)
  - a. Project Element: TMDL Targets Section and Considerations for Basin Plan Water Quality Objectives (Chapter 3) and Implementation (Chapter 5)
  - b. Purpose: Discuss draft targets section
  - c. Handout: Draft Targets section
  - d. Relevant studies: EPA 2012 Criteria, Surfer Health Study, Reference Reach Study
  - e. Previous discussions: Meetings in 2015 and recent discussions
  - f. Decisions/Desired Outcomes: Initial discussion of draft Targets section to support RWQCB review
4. Implementation Strategies for Addressing Human Sources (3:15-3:45 pm)
  - a. Project Element: TMDL Implementation Plan
  - b. Purpose: Discuss options for implementing TMDL with a focus on human health risk
  - c. Handout: None
  - d. Relevant studies: None
  - e. Previous discussions: April 18, 2016
  - 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 (3:45 pm-4:00 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 Dustin 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	●	Replaced by draft sources section in technical support document
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	●	Invite for June meeting



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		No annual reports; no useful data found
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	??		Start at June CBA meeting with consultant
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		
05/17/16	Permittees to work with Helen Yu to expand database for delisting, i.e., more recent data, information on actions that led to observed improvements	Permittees	06/23/16		
05/17/16	Add discussion and justification for regional SSO to the technical support document	Consulting team	06/23/16		
05/17/16	Prepare for SCCWRP workshop on SSO	Workgroup members	??		
05/17/16	Provide comments on draft targets section by week before next meeting	Board Staff	06/15/16		
05/17/16	Invite sewer system expert to next workgroup meeting	Chris Crompton	06/23/16		

## 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	Consensus			

		account for different settings (freshwater, marine, bays) where this has important implications for the policy				
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