

San Diego Bacteria TMDL Strategy Meeting, 06/23/16

Meeting Notes, Action Item List

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. Introduction and purpose of meeting

The purpose of the meeting was to:

- Review draft summary of MS4 requests and recommendations
- Review revised Source Analysis section
- Review implementation strategies for human sources
- Review revised Targets section
- Discuss next steps

2. Meeting notes, action items

There were no revisions to the meeting notes or action items.

3. Review draft summary of MS4 requests

(see Mtng Bacteria Strategy 06-23-16 Key elements and MS4 recommendations 06-22-16.docx distributed with the meeting summary)

Clint Boschen and Ashli Desai reviewed the draft table summarizing MS4 “asks” and recommendations that was requested by Board staff, with the goal of ensuring that the table adequately fulfills its intent of summarizing the asks and recommendations. Discussion identified a number of additional questions, ambiguities, and specific edits that will be included in the draft sent to Board staff prior to the next meeting. Additional discussion highlights included the following:

- Should add information to the table that records the current level of agreement and status, i.e., where the remaining challenges are
- The Practical Outcome column lists the goals of the project that were identified previously (Jan/Feb 2016).
 - Jimmy Smith and Jeremy Haas pointed out that achieving the Practical Outcomes may require broader actions that extend beyond the MS4s and the permit and TMDL. For example, this could include modifications to the Basin Plan and the involvement of other entities, as discussed previously
- Row #1 is the permittee’s primary goal related to implementing a risk-based approach; however, if the outcomes in Row #1 cannot be achieved at this time, then Row #2 is intended to articulate a vision for how to approach this goal over the longer term. The Phased Implementation Schedule represents an alternative approach, depending on further discussions on incorporating a true risk-based framework in the near term. Discussed removing details on the Phased Implementation Schedule for now to focus on the permittees’ recommended approach (incorporate risk-based framework)

- Jimmy Smith noted that an open question is how much focus to put on a risk-based approach in the near term. Overall, this is a step in the right direction but the table and implementation plan needs more specificity in areas such as schedule and allocations
- If a risk-based approach is not to be implemented now, then the permittees would like a commitment from the Board on a pathway for eventually getting there
- A risk-based approach, in terms of illness rates and their link to indicator concentrations, is already in the objective as a basic foundation. However, moving to an approach based on measurement of actual illness rates in the region, and on pathogen indicators, will take some unknown length of time, which highlights the importance of the TMDL compliance schedule
- This would also require changes to the WQIPs. In terms of Row #3, there was some disagreement about whether the Surfer Health Study provides enough basis, on its own, for a site-specific objective
- In Row #5, Column #1, “cleaner” should be changed to “safer”
- In terms of Row #5, it is not clear how to transition from an allowable exceedance frequency approach to the risk-based approach
 - This might require looking at the risk profiles of unique sources in different watersheds, something that has not been required before
 - There is some disconnect between the language in the Practical Outcome and the recommendation, which might require adjusting the language of the Practical Outcome
 - If the approach is based on targets, then it will be easier to link these to sources and allocations, which can be expressed as a percentage of allowable exceedance days
- The Practical Outcomes listed in Rows #10 and #12 were not included in previous discussion, but were added to include additional important topics
- For Row #10, generally discussed possibly including a combination of allowable exceedance days and loads. The Chollas Creek Metals TMDL provides a good example of an implementation based TMDL approach
- In terms of allowable exceedance days (Row #10), what is the basis for defining these, acknowledging that the risk profile in natural and urban systems is different even if the indicators are the same?
- In terms of Row #11, consider setting different schedules for different sources or water bodies

Board staff should submit comments (AI) by July 20, a week prior to the next workgroup meeting.

4. Source analysis section

(see Mtng Bacteria Workgroup 06-23-16 Source Analysis.docx distributed with this meeting summary)

One main question for Board staff is whether this section (and the other revised sections) met their stated needs for technical justification and support of the recommendations. A walk-through of the revised section highlighted a number of edits and revisions. Discussion also highlighted the following:

- Section 1.1 should include direct discharges to the surfzone, recreational areas on creeks with facilities, porta potties, and illegal RV dumping to stormdrains
- Section 1.2 should revise Figure 1 to clarify if it refers to risk, loading, or some synthesis of the two. The degree of implied quantification and the relationship to loads is ambiguous, although the intent was to include the nature of the associated pathogen(s) and loads
 - Figure 1 communicates important information about relative risk of different sources and it will be important to be able to defend its messages. Ensure that linkage with text is accurate and tight
 - Additional information on the pathogenicity of dog and cat feces will be gathered and included, and the position of livestock will be adjusted to be lower than sewage and homeless
 - Relative position of sources in Figure 1 might differ depending on location; not sure this level of detail is appropriate for the figure

- Assess information on pathogens in compost and whether this is a potential source/pathway, e.g., mulch along freeways. Nancy Palmer has information on bacteria and pathogens found in manures
- In terms of Section 2, a key issue is how to deal with upstream land uses that eventually contribute to the MS4
 - This section focuses directly on MS4s; influence of upstream sources belongs in the allocation section and a discussion of jurisdictional boundaries
 - This will require a quantification of loads and a separation and identification of different inputs; something that was not addressed in detail in the current TMDL
- In Section 2.3, it may be worth investigating CIWQS more to determine whether it is possible to document where sanitary sewer overflows (SSO) end up. That will help quantify loads from sources and ultimately allocations
 - It will also be important to address laterals and exfiltration as well as SSOs
 - And if possible to identify how much from various sources reaches surface water and may be mobilized later during periods of higher flow; current information on spills does not include exfiltration
- In terms of Section 2.3, the current management and regulatory system does not incentivize reporting of exfiltration; there are no formal requirements to ensure that annual inspection goals are met

Board staff should submit comments (**AI**) by July 20, a week prior to the next workgroup meeting.

5. MS4 implementation approach

(see file Mtng Bacteria Workgroup 06-23-16 Implementation 06-13-16.pptx distributed with this meeting summary)

Ashli Desai stated that the proposed approach focuses on what implementation would look like for high-risk sources, recognizing that this currently would involve only the MS4s but that eventually would include a wider range of relevant sources. Establishing and managing such coordination with other sources presents a number of challenges. Additional discussion highlights included the following:

- Board staff would appreciate guidance and suggestions on the specifics of how to address a wider range of human sources. Some additional details will be included in the implementation section; this presentation focuses only on conceptual approaches
- The implementation approach identifies actions to be taken by MS4s while acknowledging that some aspects of the problem will require coordination with other sources
- A key issue is which entity is responsible for taking the lead if contamination flows from another source to the MS4
 - Discussion highlighted different procedures used by different MS4s, depending on local institutional relationships and authorities. One goal is to provide a more solid and systematic foundation for coordination, rather than depending mainly on local relationships
 - Activities also fall into reactive (in response to a specific event) and proactive (focused on longer-term prevention) categories
 - One motivation for the WQIPs was to identify the set of risks (and categories of risks) involved in ultimate contamination of MS4s and effects on beneficial uses
 - Where possible, Board will focus on larger entity (e.g., a city) with overall permit responsibility rather than the individual agency (e.g., local MS4), with the goal of shifting the institutional cultural perspective
 - Discussion of specific mechanisms the Board could implement, such as revised permit language, waste discharge requirements, and the information needed to better target such actions

- For example, a wider range of permits could specifically reference the Bacteria TMDL in order to emphasize shared responsibilities, change of ownership could trigger an inspection requirement
 - These could be included in the document as implementation actions
- Slide #6: wording of 3rd bullet is meant to communicate that the MS4s do have the authority to direct actions by other entities. This will depend on the Board's convening authority and there are upcoming opportunities to begin this discussion (e.g., WDR meeting in Orange County)

6. Targets section

Board staff should submit comments (AI) by July 20, a week prior to the next workgroup meeting.

Next steps

The next steps are to address the decisions and action items highlighted above:

- Review the list of CBA alternatives based on the discussion
- Make requested edits to the problem statement
- Continue working toward preparing more fully developed written products to Board staff

Next meeting date

The next workgroup meeting will be June 23, 2016, from 9:00 – 12:00, per the agreed meeting schedule.

Attendees

San Diego Regional Water Board: Cynthia Gorham, Jeremy Haas, Jimmy Smith, Michelle Mata, Laurie Walsh, Helen Yu

San Diego County: Jo Ann Weber

Orange County Public Works: Jian Peng

City of San Diego: Ruth Kolb

Team: Clint Boschen, Ashli Desai, Brock Bernstein

Agenda
San Diego Bacteria Workgroup Meeting
San Diego Regional Water Quality Control Board
June 23 2016 9:00 am to 12:00 pm

1. Introductions and Purpose of Meeting (9:00-9:05 am)
2. Meeting Notes, Action Items, Decision Points, and Parking Lot Review (9:05-9:15 am)
 - a. Purpose: Review meeting notes, action items, parking lot and decisions from May 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
3. Overview of MS4 Permittee Requests (9:15-10:15 am)
 - a. Purpose: Provide an overall picture of the MS4 Permittees desired outcomes for the process
 - b. Handout: Summary of desired outcomes
 - c. Relevant studies: None
 - d. Previous discussions: Follow-up to May 17, 2016 RWQCB request
 - e. Decisions: None
4. Source Analysis Section (10:15-11:00 am)
 - a. Project Element: TMDL Source Analysis Section
 - b. Purpose: Provide brief overview of Draft Source Analysis section. Also, information item on sanitary sewer system operations and potential strategies for engagement
 - c. Handout: Draft Source Analysis section
 - d. Relevant studies: None
 - e. Previous discussions: None
 - f. Decisions/Desired Outcomes: Overview of source assessment and input on sanitary sewer sources
5. Implementation Strategies for Addressing Human Sources (11:00-11:30 pm)
 - a. Project Element: TMDL Implementation Plan
 - b. Purpose: Continue discussing options for implementing TMDL with a focus on human health risk
 - c. Handout: None
 - d. Relevant studies: None
 - e. Previous discussions: April 18, 2016 and May 17, 2016
 - f. Decisions/Desired Outcomes: Continue discussion with RWQCB on implementation approaches that focus on human health risk and potential, proactive MS4 strategies
6. Targets Section – if time permits (11:30-11:45 am)
 - a. Project Element: TMDL Targets Section and Considerations for Basin Plan Water Quality Objectives (Chapter 3) and Implementation (Chapter 5)
 - b. Purpose: Discuss RWQCB comments on Draft Targets section
 - c. Handout: None
 - d. Relevant studies: EPA 2012 Criteria, Surfer Health Study, Reference Reach Study
 - e. Previous discussions: Meetings in 2015, May 17, 2016
 - f. Decisions/Desired Outcomes: Discussion on next steps

7. Action items and agenda items for next meeting (11:45 am-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	●	
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	●	

Mtng Date	Deliverable	Assigned To	Due Date	Status	Comments
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	RWQCB 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
1/26/16	Prepare data comparing STV and SSM to send to SWRCB and RWQCB	Team	03/15/16	●	

Mtng Date	Deliverable	Assigned To	Due Date	Status	Comments
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		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
03/23/16	Forward specific questions related to the operation and monitoring of sewage systems to Michelle	All	04/15/16		

Mtng Date	Deliverable	Assigned To	Due Date	Status	Comments
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	●	
06/23/16	Provide comments on revised Recommendations table, Source Analysis, and Targets sections	Board Staff	07/20/16	●	

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