

**Beaches and Creeks TMDL Cost-Benefit Analysis**  
**Steering Committee Meeting #1**  
**August 6, 2015**

**Committee Members Present**

Jeremy Haas, San Diego Regional Water Quality Control Board  
Jimmy Smith, San Diego Regional Water Quality Control Board  
Chris Clark, San Diego County Taxpayers Association  
Jeff Van Every, City of San Diego Public Utilities Division  
Ruth Kolb, City of San Diego, Storm Water and Transportation (Alternate for Drew Kleis)  
Todd Snyder, County of San Diego, Watershed Protection Program  
Chris Crompton, County of Orange, Storm Water

**Supporting Roles**

Facilitator: Lewis Michaelson, Katz & Associates  
Bree Robertoy, Katz & Associates  
Michelle Mata, San Diego Regional Water Quality Control Board  
Cynthia Gorham, San Diego Regional Water Quality Control Board  
Jo Ann Weber, County of San Diego  
Theodore Groves, UCSD Economist  
Aaron Buck, San Diego Regional Water Quality Control Board  
Chris Minton, Larry Walker Associates

**Introduction**

- The steering committee was assembled to oversee the development of a cost-benefit analysis (CBA), which is being developed in support of the Regional Board's Basin Plan Triennial Review Project. The CBA will assess costs and benefits of meeting bacteria total maximum daily loads (TMDLs) and is intended to complement the information released in recent and pending scientific and technical studies.
- Michelle Mata, San Diego Regional Water Quality Control Board, will serve as the project coordinator.
- Jo Ann Weber, County of San Diego, will serve as the procurement process liaison.

**Background**

- Bacteria TMDLs were developed in 2010 with a 20-year deadline for compliance. There are two different numeric targets, one each for wet and dry weather. At the time, the science was uncertain for indicators, conditions, etc. Due to this, the Board decided to revisit targets in five years when the science would be more developed, given that certain conditions were met. In 2012 EPA released revised recreational water quality criteria that recognize past indicators should be revised. The State Water Board is currently working on development of statewide criteria. Cost estimates for compliance became an issue.

- During the Triennial Basin Plan Review the San Diego Regional Water Quality Control Board (SDRWQCB) committed to looking at new scientific and technical information, holding a workshop, and looking at a CBA and internal programs. Enhanced information (i.e., cost-benefit analysis and scientific studies) is going to be collected over the next two years.
- Orange County, San Diego County and City of San Diego have been involved in forming the foundation for creating a process, along with the SDRWQCB. The City and Counties have requested to reopen the Basin Plan and perform a CBA as part of that.
  - A committee of those four entities is drafting a Memorandum of Understanding (MOU) to define roles and responsibilities.

### **CBA Project Purpose and Scope**

- Purpose: To look at the costs of compliance as well as the benefits in order to generate recommendations regarding amendments to the Basin Plan.
- Any amendment to the Basin Plan must be based on data: information from scientific and technical studies, as well as the costs and benefits of compliance. The SDRWQCB has no set outcome in mind; they want the facts to dictate decision making.
- Questions for the CBA steering committee to address: What factors and issues should be considered in the CBA; what can be quantified and measured; what will be the biggest challenges in conducting a credible CBA?
- L. Michaelson: Are there any groups or studies that are taking a look at the science/technical data?
  - J. Haas: There are a handful of studies that are relevant – some are academic and some are in the region. There is also a non-formal workgroup that meets to discuss/stay on top of new information.
- There will be a public workshop to discuss new technical studies, how they affect decisions being made, and how that will impact the public. If there are any amendments, a CEQA process will be undertaken.
- T. Snyder: Have there been discussions with EPA and the State Board regarding whether they are supportive of letting science drive changes/amendments?
  - J. Haas: The State Board and EPA are not particularly engaged yet, but they appear supportive. The State Board is embarking on a similar mission. EPA supported the Basin Plan review, but I don't know the extent of their involvement with scientific studies. There's no reason to believe they would not be supportive.

### **Draft Charter Overview and Discussion**

- At the time of the meeting, the charter is a draft. It will be reviewed and discussed by the committee before it becomes final.
- The committee has decision-making power with respect to the scope of the CBA and will participate directly in the selection of the CBA consultant.
- Each member represents a key segment of stakeholders and is responsible for ensuring perspectives of the constituencies they represent are heard.
- Alternate members should be chosen as soon as possible and no later than the next committee meeting. Alternate members are encouraged to attend meetings to stay up-to-date on important information and the status of the committee.

- C. Crompton: If the EPA and State Board are not already engaged, should they be listed as members? Maybe a special designation would be better, such as *ex officio*.
  - L. Michaelson: The committee will need a quorum to operate, so a discussion of “voting” members warrants a discussion. However, the steering committee will obviously make every effort to encourage them to participate.
- J. Smith: The absence of Matt O’Malley (Coastkeeper) is problematic. Non-government organization representation is critical, and committee members are encouraged to reach out and personally invite them.
- T. Snyder: Maybe the committee should also include Orange County Coastkeeper or the Surfrider Foundation.
- C. Crompton: The agenda should have a standing item at the beginning of meeting to identify any changes in membership.
- While a quorum comprises a simple majority of members, the committee decided to adjust the charter to reflect new voting guidelines: a “super majority” is now needed for approval. (What constitutes a super majority will be determined after the exact number of members is finalized.) If a super majority of the members are not available to participate in a vote, a vote cannot be taken, and voting will be via electronic channels.
- L. Michaelson: If you are concerned about meeting a quorum, particularly for those of you who must travel a great distance, it would be a good idea to have members RSVP for meetings. As project coordinator, Michelle Mata agreed to take on the task of requesting RSVPs for each meeting.

## **CBA Overview and Discussion**

### *Overview and Elements*

- The idea of the CBA is to compare apples to apples, which requires both costs and benefits to be monetized. Generally, however, costs tend to be easier to measure in dollars than health or recreational benefits.
- Examples of assigning monetary value to health, recreational and other costs and benefits of compliance/non-compliance:
  - Cost associated with being sick (e.g., hospital visit)
  - If beach/rec area is closed, people don’t visit and spend money in that area
  - Willingness to pay (e.g. what is a person willing to pay for a clean beach or to not get sick) – there is some concern with this approach as people may not actually be willing to pay the price they assign
  - Avoided cost of not visiting the beach (gas, emissions, etc.)
  - Property values
  - Co-benefits from compliance efforts (e.g., storm water capture, water reuse, addressing other TMDLs)
  - Amenity/aesthetics value
- Recreation on the beach will be a key factor of the CBA. However, the impacts vary greatly depending on the season and weather conditions.
- There are six watersheds, five of which exceed bacteria TMDLs, so there is a lot to consider.

- A. Buck: Based on the EPA and State Board analysis, key indicators to determine value include internal rate of return, net present value, expected net present value, benefit-cost ratio. Some of these indicators can be changed.
- A. Buck: Statistical analysis will assign value to benefits, whether it be social or personal. Negative benefits are called 'discounts.'
- A. Buck: The CBA could offer alternatives which might give a better return on investment.
- Aaron: The EPA recommends several alternative CBA models, including:
  - Materials
  - Ecological
  - Water-based
  - Carbon-based

#### *Committee Members' Expectations for the CBA*

- R. Kolb: The City of San Diego has done an Assets Management Plan, which looks at economic, social and environmental factors. The plan took about 3.5 years, but it projects for about 100 years. Based on that, the City is trying to assess environmental costs, including the cost of complying with bacteria TMDLs. The City wants to make sure they are effectively and efficiently using public funds, particularly since there are other funding concerns, including street maintenance and police and fire department costs. The City is looking for a document to use to balance the needs of compliance against the needs of the city.
- T. Snyder: The timeline for compliance is like a wall closing in on you. Considering the significant cost of compliance, the County wants to know what the benefit is, as well as how to balance this against other needs. If the CBA shows significant value (benefit), it will help in obtaining funding.
- C. Clark: Transparency of process will be important to start a conversation with the public about why funds are being spent on bacteria TMDLs rather than other things, such as public safety.
- C. Crompton: The magnitude of wet weather TMDLs seems insurmountable and cost is enormous, so this study is clearly of value. It will be fascinating and important to see what the ratio of cost to benefits is, as well as for the policy makers to see it.
- J. Van Every: I am interested in improving public health, which is what a lot of people have said so far.
- J. Haas: We want to find out if we're going to be able to meet expectations when it comes to compliance. We want to have a conversation about quantifying cost, recognizing it is challenging to do so, but at the very least, it should improve communication. We want to look at dollars, but also at value.

#### *Alternatives to Be Considered*

- C. Minton: I'm wondering if there are limits to the alternatives that should be considered in the CBA. In order to be considered a viable alternative, does it need to meet some sort of compliance, or can we look at both under and over compliance to understand tradeoffs?
- J. Haas: Limiting the scope of this is our best bet in terms of our resources. There aren't necessarily any boundaries, but the SDRWQCB really wants to know what are the costs and benefits of compliance with the current approach. I'm afraid if we try to quantify various alternatives, we will exceed our resources.

- T. Snyder: The scope should be clear on what exactly we're doing. For example, wet or dry weather? REC-1 or REC-2? Shellfish harvesting – commercial or incidental? Broad or specific?
- T. Groves:
  - It's very important to have some notion of error bars. That is, the numbers will be forecasted with a range of uncertainty that should be identified, especially when dealing with the variability that weather will introduce. The consultant will need to think about ranges of possibilities and alternative scenarios.
  - Just to estimate the costs and benefits of meeting the standards isn't robust enough. You'd want to have the consultant look at how the analysis would change if the parameters were tweaked (i.e., trade-offs), not necessarily to change the standards, but to take different paths to compliance.

### *Benefits and Discounts*

- T. Groves: Anything that can be market valued is pretty straightforward. The difficulty will be in evaluating non-market value of things, because that is personal.
- T. Snyder: Public health should be a core issue because that is the primary standard for REC-1.
- L. Michaelson: Are you looking at health concerns or closures? Or both?
  - C. Crompton: Wet weather is not necessarily going to close the beaches. It will produce an advisory for three days. That will happen regardless of water quality. Only sewage spills will close the beach, which is not an issue of the MS4.
  - T. Snyder: The CBA should look at the number of people who use the beach when there's an advisory versus when there isn't.
- C. Crompton: How important is willingness to pay? Would an opinion survey on this help? The County of Orange is putting together an opinion survey, and might be able to incorporate some questions about this.
  - T. Groves: This is usually based on what people are willing to trade to have the project benefits. Start with the notion of what is your objective (e.g., increasing social benefit).
- C. Crompton: What about during the winter, when people are not using the beaches? This study is focused on wet weather, so it should look at seasonal patterns vs demand (e.g., tourism).
- T. Groves: Often public benefits far outweigh the cost, although sometimes the cost is so high, it is a matter of whether agencies can afford it.

### *Consultant Considerations*

- J. Haas: Would the committee want to articulate the things the consultant would do in the Request for Proposal (RFP), or should that be up to the consultant? How specific should the RFP be?
  - T. Groves: The committee could interview or look at past work to see how they handle non-market valuations. Bidders need to know what the committee expects, but the RFP shouldn't be too specific. Don't tell them how to do their job, but rather what outcomes are expected (what the committee expects to have answered).
  - C. Crompton: Don't want to be so general that the committee doesn't get what it wants.
- Without a background knowledge of these issues, it would be hard for a consultant to put together a CBA that addresses the unknowns and factors. The RFP should address the background of the consultant.

- C. Crompton: Should be a team (one company or several) with a mixture of academics and consultants.
  - T. Groves: That would be big and expensive, and probably outside of your resources.
- C. Crompton: Need to have the various disciplines to keep consultant in check.
  - L. Michaelson: How much of that would be the function of the steering committee?
- The RFP should identify the materials, studies, etc. that can be provided to the consultant (especially the cost estimates that have already been put together).

#### *Other Important Considerations*

- C. Crompton: What is the baseline for measurement?
  - T. Groves: A 'baseline' is ambiguous in this context. You want to have a notion of where you're starting, but you can't assign a number to that.
- A. Buck: Peer review is key to the success of the model.
  - J. A. Weber: In Orange County, NWRA (nonprofit) is willing to set up a panel of experts to look at the model.
- How does infeasibility tie into reasonableness?
  - J. Haas: When TMDLs and Permit were adopted, there was a constant stream of comments saying compliance was not feasible. The SDRWQCB felt they were not being presented with data that supported these claims. They do, however, recognize the concern.
  - L. Michaelson: Does feasible mean scientifically or economically?
    - T. Snyder: Permittees argued both at hearing.
    - R. Kolb: No one knows the exact cost. A low-cost CBA was done previously and was not well received.
- R. Kolb: Reasonableness needs to be evaluated as defined in the Water Code.
- C. Crompton: The schedule might need to change depending on the studies that exist, don't exist and are coming out. Data may or may not be available that we need.
  - A pending epidemiology study is critical to the process of the CBA and final decision.
- J. Van Every: The Wastewater Department started a sewer spill reduction program. Since then it's been reduced significantly. That could be a component in the CBA.
- C. Clark: The study should delve deeper into costs and how that affects taxpayers.

#### **Procurement Process**

- It will be a public bid process.
- Also, a public scoping meeting will be held on Sept. 16, 2015.
- A selection committee (which will include up to five steering committee members) will be formed and will begin work in November.
  - Consultants have already expressed interest in the work. Some are academic.
- A contract will be awarded in January.
- Project completion is expected in June 2016, but that is not firm.
- J. Haas: I'm concerned about the procurement schedule being too tight.

### **Action Items**

- J. A. Weber, C. Crompton, R. Kolb - Determine pressure points, questions and issues to address at the next meeting before putting together draft consultant scope for next meeting.
- R. Kolb - Put notes together.
- MOU Committee – Continue work on draft document.
- M. Mata – Provide notes taken and copy of sign-in sheet to Brittany Robertoy.