

**Beaches and Creeks TMDL Cost-Benefit Analysis**  
**Steering Committee Meeting**  
**June 15, 2016**

**Committee Members Present**

Jimmy Smith, San Diego Regional Water Quality Control Board  
Jeremy Haas, San Diego Regional Water Quality Control Board  
Ruth Kolb, City of San Diego, Storm Water and Transportation  
Todd Snyder, County of San Diego, Watershed Protection Program  
Jeff Van Every, City of San Diego Public Utilities Division  
Ted Shaw, Atlantis Group, representing San Diego County Taxpayers Association  
Rob Hutsel, San Diego River Park Foundation  
Jian Peng, County of Orange, Stormwater Quality Planning

**Supporting Roles**

Lewis Michaelson, Katz & Associates  
Bree Robertoy, Katz & Associates  
Cynthia Gorham, San Diego Regional Water Quality Control Board  
Michelle Mata, San Diego Regional Quality Control Board  
Jo Ann Weber, County of San Diego  
Mark Buckley, Eco Northwest  
Chad Praul, Environmental Incentives  
Ken Schiff, Southern California Coastal Water Research Project

**Meeting Notes Review**

- The June 6 meeting notes weren't provided to the steering committee members in time for review.
- Eventually, meeting summaries will become public record. Committee members should review all meeting summaries carefully and ensure comments were recorded accurately.
- An optional conference call between the consultant and steering committee took place on June 9. The discussion explored benefit analyses and methodologies and data to be used in the cost-benefit analysis (CBA).

**Environmental Protection Agency Standards and Involvement**

- Conversations outside committee meetings between the consultant and policy makers are permitted only as long as notes are taken and shared with the committee. It is preferable to hold these conversations at steering committee meetings.
- R. Kolb: Dave Smith, Environmental Protection Agency (EPA), has expressed willingness to participate in steering committee meetings via phone.
- R. Kolb: Per a phone call with the EPA last Friday morning, the CBA would be more likely to impact changes to schedules rather than water quality objectives or standards.
- R. Kolb: If additional costs are incurred in order to perform the financial capability analysis (FCA), the City of San Diego may be willing to provide extra funding.

- T. Snyder: The existing scope and budget is focused on the CBA, with a smaller amount allotted for the FCA. Considering the EPA will only use the FCA when considering a change in the schedule of compliance, should more resources be put into the FCA than the CBA? The CBA is important, but is it worth the large price tag if it isn't useable?
  - J. Haas: The CBA will also inform decisions made by the board and can identify the best and most effective strategies to protect water quality.
  - R. Kolb: The FCA is required to change final compliance schedule dates. Interim compliance dates can be modified by the regional board based on scientific data.
  - C. Praul: The cost of performing the FCA is relatively low.

#### **Work Plan [C. Praul]**

- Some scenarios will not be comparable due to variations in timeframe or other assumptions.
- Expected results will be provided in a table that includes scenarios, types of benefits, types of costs and net benefits.
- Results will be measured in dollars.
- J. Smith: Will analysis results be discussed in relation to one another in the final document?
  - Yes.
- J. Smith: Will it be possible to look at different combinations of scenarios?
  - M. Buckley: To the extent the data allow, yes. The final document will include spreadsheet models with pieces that can be sorted for optimization. The information can also be organized modularly to allow for sorting later.
- The consultant requested comments on the work plan from the steering committee and will circulate comment forms for that purpose.

#### **Benefits Cross-Cutting Analysis [M. Buckley]**

- The benefits cross-cutting analysis includes sets of key categories. Steering committee members were asked to provide input regarding whether the categories are appropriate.

#### *Recreation*

- The cross-cutting analysis will look at how the regulation affects the number of recreational trips, as well as relationships between activities and water quality. Data collected will include the lifeguard daily beach count and studies of specific counts for these types of activities.
- The analysis will differentiate between local and non-local recreation.
- T. Snyder: Is recreation to be considered in the CBA limited to water contact?
  - No, it includes any form of recreation impacted by the REC-1 TMDL. The analysis will look at the total benefits of a trip.
- The benefit is measured in visitor days (one day is equivalent to eight hours) but recognizes that different types of trips involve varying amounts of time less than eight hours. Weather and water quality will be taken into account.
  - K. Schiff: Southern California Coastal Water Research Project (SCCWRP) has data on beach attendance and avoidance.

### *Public Health*

- There are a great set of studies available for public health. The analysis will use intersecting data across the region.
- Economic impact analyses usually don't evaluate impacts for jobs and income of undesirable things (e.g., an economic impact analysis would not typically study the loss of cleanup jobs from avoiding an oil spill). Therefore, it is appropriate that the economic impact analysis not include an impact analysis of reduced healthcare expenditures. The benefit analysis will value the benefits of public health as part of the CBA, though.
  - J. Smith: The CBA should list analyses that are not being performed.

### *Property Value*

- The property value analysis will look at the effect improving water quality will have on the value of homes in proximity to water. In terms of prioritization, this study may not be as important, but the most robust data are available for it. The study will look at sales prices and will take into account samples of areas with and without water quality issues and nearby amenities.
- The property value analysis is more expensive than the other benefit analyses, but a lighter approach can be taken that would just include a literature review.
- J. Smith: Would the analysis be limited to beaches regulated by the TMDL?
  - No.
- R. Hutsel: Will the study take into account visitors?
  - It can, and it wouldn't take too much of an additional effort. It would be a different set of calculation because it would be focused on businesses.
- J. Haas: Increased property value would also mean increased tax income, but in terms of relativity this study is not worth doing detailed analysis.
- Is it important to taxpayers to improve water quality so people who can afford to live by the beach can have higher property values?
- R. Hutsel: The San Diego River Park foundation gets calls every year from residents in Mission Valley because of the odor associated with river, so the property value factor should be considered.
- T. Shaw: Property value is more about personal aesthetic and sense of neighborhood when looking at different beach areas.
  - There is a phenomenon called 'neighborhood effect' that can result in higher prices and would be taken into account in the study.

### *Co-Benefits*

- This analysis will involve a literature review to determine benefits, mostly resulting from implementation of BMPs.
- C. Praul: One important need is data about water quality effects. The load reduction versus cost models developed as part of the Water Quality Improvement Plans (WQIP) could be used, or the consultant could adjust the modeling inputs to improve accuracy at additional cost and time.
  - J. Haas: The existing models don't seem applicable to all policy decisions.
  - J. Smith: Those models only include load reductions from BMPs, which is just one part of the cost-benefit curve.

- T. Snyder: The model should be load reduction versus benefits. We don't have models looking at load reduction from alternatives other than BMPs (e.g., wastewater, transient camps). I'm comfortable using the WQIP modeling, but I'm not comfortable using it without applying the same effort to look at other sources.
- J. Peng: The WQIPs tried to focus on fecal indicator bacteria, but not enough. With fecal indicator bacteria, we're talking about health benefit rather than water quality.
- J. Smith: How worthwhile is it to study fecal indicator bacteria? Everything the Rec-1 workgroup is struggling with is being pushed on the CBA. It might not be fair or reasonable.
- J. A. Weber: Enterococcus was the driver for the WQIPs. The consultant may just need to scale the numbers.
- J. Smith: Could the larger working group produce another curve?

### **Budget and Schedule**

- The estimated budget without any modifications was \$439,000, which is approximately \$50,000 to \$100,000 over the project's budget. Analyses can be eliminated or reduced in scope to decrease cost.
- The budget includes a preliminary screening analysis, which is a pilot analysis for the FCA.
- 'Fixed engagement cost' is the fee to get started on the analysis.
- Literature reviews can be performed in place of detailed analyses for \$1,000 to \$2,000 each.
- Full reports could be minimized to memos to reduce costs.
- T. Snyder: More budget should be allotted for the public health analysis than the recreation and property value analyses.
- The site-specific standards in dry weather scenario was removed.
- R. Kolb: The stream restoration scenario analysis is very important to City of San Diego.
- The schedule will be tight without more cuts. It will need to be revisited at the next meeting.
- T. Snyder: How does this budget compare to other CBAs?
  - It is comparable for this scale. No one category is too high, but there are a lot of scenarios. Cost is typically driven by primary data collection. The cost already expended for the surfer health study is a factor in keeping the CBA budget down.
- The consultant will have access to Tetra Tech and Geosyntec data and modeling, but communication will be facilitated through the steering committee.
- C. Praul: Should the FCA be performed with targeted figures for each region, or is an average for the region acceptable?
  - R. Kolb: If the City of San Diego adds funding for the FCA, it may not be able to pay for Orange County and San Diego County's portion of the analysis. It depends on the difference in cost.

### ***Budget Changes***

- The property value cross-cutting analysis was reduced in scope.
- The budget for the co-benefits cross-cutting analysis was increased.
- The economic impact cross-cutting analysis was reduced in scope.
- Fact sheets will be developed optionally, if the budget allows.

- All scenarios were kept except for site-specific standards, which were cut in favor of analyzing region-wide standards.