

**FINAL
Meeting Summary**

**Santa Margarita River and Estuary
Nutrient Water Quality Objectives Project
Watershed Stakeholders Meeting
Wednesday, January 25, 2012, 10:00am to 2:00pm**

Location:

Rancho California Water District
42135 Winchester Road
Temecula, CA 92589

Introduction:

Attendee List:

Name	Organization	E-mail
Sheri McPherson	County of San Diego	sheri.mcpherson@sdcounty.ca.gov
Jo Ann Weber	County of San Diego	joann.weber@sdcounty.ca.gov
Con Kontaxis	Caltrans	Constantine_Kontaxis@dot.ca.gov
Martha Sutula	SCCWRP	marthas@sccwrp.org
Rich Williamson	RCWD	williamsonr@ranchowater.com
Ashli Desai	LWA	ashlid@lwa.com
Jayne Joy	EMWD	joyj@emwd.org
Cynthia Gorham	RWQCB	cgorham@waterboards.ca.gov
Jeremy Jungreis	USMC Camp Pendleton	jeremy.jungris@usmc.mil
Mark Bonsavage	USNC Camp Pendleton	mark.bonsavage.usmc.mil
Chuck Katz	US Navy	chuck.katz@navy.mil
Jason Uhley	RCFC	juhley@rcflood.org
Greg Krzys	Federal Bureau of Reclamation	gkrzys@usbr.gov
Jeff Marchand	FPUD	jeff@fpud.com
Michael Welch	Consultant w/ San Diego County	mwelch1@san.rr.com
Rachel Davenport	AMEC Environment & Infrastructure, Inc.	rachel.davenport@amec.com
Dave Ceppos	Center for Collaborative Policy, California State University Sacramento	dceppos@ccp.csus.edu

Meeting Materials:

- Agenda
- Project Timing and Phasing Summary
- Proposition 84 – Phase I Overview
- TMDL Overview
- Summary of Technical Questions

Meeting Goals:

- 1) Receive update and conduct technical discussions about lagoon and watershed modeling
- 2) Provide input on appropriate study questions for technical team consideration
- 3) Identify next steps with new facilitator and associated group development/structure

Action Items: (unless otherwise described, all action items are expected to be completed before the February 23 stakeholders meeting)

- 1) Dave Ceppos will speak with individual stakeholders and provide recommendations at the next stakeholder meeting for proposed stakeholder group operating rules and “charter”. Dave will provide a summary, based on his conversations with individual stakeholders, of the common themes and agendas. This will be an agenda item for the February meeting.
- 2) Martha Sutula and Ashli Desai will speak with the U.S. Environmental Protection Agency (USEPA) (Cindy Lyn and Terry Fleming) before next meeting regarding their involvement with this project. They will report on status during the next meeting.
- 3) Dave Ceppos will provide the URL for the 3rd party Total Maximum Daily Load (TMDL) toolkit for stakeholders to utilize as a resource and will begin pulling together standard questions for the charter.
- 4) Jo Ann Weber will spearhead the Technical Team to create an annotated workplan outline that will eventually be provided to the regulatory community.
- 5) All stakeholders are to think about who they want to have present at the briefings to the board.
- 6) Cynthia Gorham will speak to Dave Gibson, San Diego Regional Water Quality Control Board (RWQCB) regarding policy and decision-making issues of this project.
- 7) Related to Action Item 6, Cynthia Gorham will speak with RWQCB colleagues and will report to the stakeholders how the RWQCB defines “critical” beneficial uses and how they prioritize critical beneficial uses over other beneficial uses.

Review of Facilitator Role and Related Future Activities:

Facilitator Role in the Santa Margarita River Stakeholder Group Process:

Dave Ceppos (Center for Collaborative Policy), is the new facilitator for the Santa Margarita River (SMR) Stakeholder Group meetings. After a brief introduction about himself and his experience, Dave described his role within the SMR stakeholder strategy process: He will provide facilitation with no technical advisement. Dave provided his observations thus far, stating that with an effort such as the one undertaken by the stakeholders, there are two categories for project success: technical and strategic. The stakeholders need a defensible and cohesive strategy to define the rules of engagement between the stakeholders themselves, including: communication; decision-making processes; engagement of the regulatory community; and moving forward with a strong game plan. Dave is providing strategic assistance, ensuring the right questions are asked and assisting with effective and time efficient movement forward with the project and is currently scoped to continue at the monthly meetings until June 2012.

Meeting Goals and Related Future Activities:

The stakeholders reviewed the meeting goals per the agenda, as provided above. In addition, Jeremy Jungreis (Camp Pendleton) suggested additional goals for the meeting, including:

- A stakeholder agreement/charter/Memorandum of Understanding (MOU) as to what they jointly hope to accomplish over the next year
- Reach a consensus as to the end state of the whole process/project: determine clear goals as to what the stakeholders jointly want to accomplish and set up a framework for accomplishing them.
- Determination of questions that must and/or should be answered during each phase of the grant application (i.e. regional board requirements, nutrient numeric endpoints [NNE], etc.)
- Define the roles and responsibilities of the project staff and technical team
- Draft a schedule for milestones

One caveat was brought forth regarding additional goals about decisions of magnitude: there may be additional parties not privy to the current stakeholder process/strategy meetings that have a material interest in the outcome of the project. They may need involvement in the decision-making process prior to determination of any final decisions.

Dave intends to provide a proposed charter at the February meeting after interviewing each of the stakeholders (or groups of stakeholders from the same organization). As part of his role as the facilitator, he will conduct a confidential, neutral assessment of individual and organizational stakeholder needs; looking for common themes and trends about how the stakeholder group might proceed group rules and guidelines. Based on those conversations, he will provide recommendations at the next meeting about how the group might proceed in an organized and strategic fashion. He reminded the group that the regulatory organizations may need a separate set of roles in this process and may not appropriately be a part of all the stakeholders' decisions about rules and guidelines.

Overview of Proposition 84 – Phase I

Jo Ann Weber (County of San Diego) provided an overview of Proposition 84 funding and schedules. During the prior meeting, it was unclear whether Camp Pendleton was paying for the lagoon modeling. It has now been confirmed that they are supporting that modeling effort. Phase I is currently underway. Upon receipt of grant money from the California Department of Water Resources, the San Diego County Water Authority will begin negotiations with the County of San Diego. Key items in Phase I include: development of: the stakeholder workgroup, field and special studies (the Work Plan is due September 2012), and nutrient Water Quality Objectives (WQOs) for the SMR Estuary (SCCWRP will provide technical support and the RWQCB will prepare the staff report). The shift of funds from the lagoon modeling (thanks to Camp Pendleton's contribution and the contribution of watershed modeling efforts by the RWQCB through a contact with Tetra Tech) has increased the funding from \$150k to approximately \$350k.

A concept proposal has been submitted for Phase II. Opportunities to issue the Phase II portion of the grant may be sometime between Winter 2013 and Summer 2014 and is a joint project

between groups within San Diego County and Riverside County Flood Control & Water Conservation District, acting on behalf of Riverside County.

The Estuary Nutrient TMDL

Overview of the Process:

Martha Sutula (SCCWRP) and Cynthia Gorham (RWQCB) described the TMDL process and what stakeholders can expect for the SMR Estuary Nutrient TMDL (see PowerPoint presentation). The TMDL has two components: the Estuary WQOs and Estuary TMDL and the River WQOs and TMDL.

The SMR Estuary was 303(d) listed for eutrophication. A monitoring order was issued to provide for the collection of data to input into estuary and watershed models. Field work and reporting are complete, and additional data were collected to address deficiencies in the original data set. Data assessment is complete and the report will be published around April, 2012, in time for use by the lagoon modeling team.

The lagoon modeling process typically takes about a year and a half to two years to complete. The RWQCB is the regulatory lead, writing the TMDL and supporting documents. The TMDL RWQCB lead staff member is Cynthia Gorham. Once complete and approved by the RWQCB, the TMDL will be sent to the State Water Resources Control Board (SWRCB), then the State of California Office of Administrative Law (OAL), and then to the USEPA. As a result, the USEPA is a key stakeholder and the stakeholder group needs to engage them in the process while respecting their resource challenges.

Martha and Ashli Desai (Larry Walker and Associates) agreed to talk to USEPA representatives Cindy Lyn and Terry Fleming about the proposed TMDL approach and will report back to the group during the February meeting. While the USEPA does not need to be present at every meeting, they need to be aware of the process and engaged and present when policy decisions are being made. The critical path for the project will be within the next few months so the USEPA should be present for technical decisions that may affect policy decisions. Key decision items may be pre-reviewed with the USEPA prior to the meeting so the USEPA's perspectives have been prepared prior to the meeting. Technical consultants believe that the estuary TMDL is pretty straight forward as to what USEPA input is needed. The SMR TMDL will be more complicated, will require more USEPA input, and it will be harder to predict when the USEPA's presence will be necessary due to the SMR TMDL being relatively uncharted territory.

A question was raised as to whether Rik Rasmussen (SWRCB) is aware of the project. Ideally, this project's results will be consistent with the state's NNE initiative, but the SWRCB should be involved in the policy decision-making as well. How NNEs are used in a TMDL may be precedent-setting for the region. The stakeholder group will hopefully nail down more specific project schedules and milestones at the next meeting.

Update on Lagoon Modeling:

SPAWAR was funded (\$280k) in September 2011 for the estuary modeling to be conducted through September 2012 (federal fiscal year). Data collection has begun and will continue for two to three months. Mark Bonsavage (USMC Camp Pendleton) anticipates being able to bring something before the stakeholders during the April meeting, when the first data from the model

and assumptions will be run. A charter between stakeholders, prior to review of the model is recommended. SPAWAR has been funded for one year, and if not complete by September 2012, the stakeholders will need to have a contingency funding plan in place to complete the modeling. A charter would provide Camp Pendleton certainty about potential funding partners that might allow for additional funding to be provided by USMC to complete the modeling.

The charter could just set up roles and responsibilities so something is in place while a second document containing finances is passed through respective stakeholder organizations. What is required of each stakeholder and costs through the end of the project (an approved TMDL) needs to be defined. Cost is tied entirely to the regulatory decisions that must be made. Martha recommended the modelers be present at the next meeting to detail the physical boundaries of the estuaries, agreement of data sources, etc. because the NNE for the estuary needs to be discussed between February and March.

Technical Approach:

The technical team to support the lagoon modeling effort is comprised of SCCWRP, SPAWAR, and Tetra-Tech. SCCWRP is acting as technical advisor for the modeling. SPAWAR is conducting the estuary modeling. Tetra Tech is creating the watershed loading model and will work with Dave to focus on what decisions need to be made. Unlike other states, California requires TMDLs to include implementation plans. Components of the TMDL are (see also attached PowerPoint presentation):

- Problem Statement: not yet written.
- Numeric Targets: used to set the TMDL.
 - A target to be met during all times in the estuary and may be used to determine loads into the waterbody to ensure that beneficial uses are sustained
 - Two different approaches may be implemented:
 - Figure out the amount of reduction needed to maintain the healthy system and split that between the stakeholders OR
 - Run management scenarios where some stakeholders are required to have more load reduction than others and run it through a model
 - Chuck Katz (SPAWAR) posed the question as to whether a mechanism is in place to account for competing beneficial uses, whether there is room to choose anything other than critical beneficial uses (the beneficial use that needs the highest level of protection), and who makes the final determination as to whether those issues can be addressed in the TMDL *Cynthia responded that generally, critical beneficial uses are prioritized over other beneficial uses*
 - Jeremy Jungreis (USMC Camp Pendleton) questioned whether there is the ability to get a flexible numeric target based on commitments of management to do certain things – i.e. flushing versus concentration
 - KEY QUESTION: what is considered a critical beneficial use and how can water quality be managed for it? *Cynthia will address this with RWCB colleagues and will report back at the February stakeholder group meeting.*
 - Jo Ann) posed the question as to how Loma Alta was handling this issue. They are using Dissolved Oxygen (DO), Nitrogen (N), and Phosphorus (P) and are currently looking at macroalgae. If macroalgae deviates from the Basin Plan, a site specific objective (SSO) may be used if you have enough scientifically defensible data to back a SSO. The USEPA will not approve the TMDL without a SSO, but compliance is based off the load allocations (LAs) and wasteload allocations (WLAs).

- Jason Uhley (RCFC&WCD) provided experience from the Lake Elsinore TMDL, where the RWQCB defined response targets and then set WLAs. Meeting either standard was deemed compliant.
- Rich Williamson (RCWD) brought up the difficulty with non-point sources in respect to load allocations and would like that to be addressed; total mass loading may have beneficial effects from increased water.
- Source Analysis: list of known contaminate sources
- Linkage Analysis and TMDL Load Estimate:
 - Links the sources and loads using the watershed loading model. The estuary water quality model (receiving water model) looks at the cycling, fate, and transport of pollutants within the waterbody. Models are validated and calibrated and then are used to predict what models should look like under different management scenarios
- Margin of Error: Conservative assumptions made are usually 5-10% of loading capacity.
- Load and Wasteload Allocations:
 - WLA (point sources governed by NPDES Permits) + LA (non-point sources) + Margin of error (5-10% of load capacity) = TMDL
 - If non-point sources drain to an MS4, however, they are considered as part of the WLA.
- Implementation plan:
 - Description of actions taken, parties, regulatory mechanisms, schedules, milestones, monitoring, special studies, adaptation, etc.

The SMR Estuary schedule currently does not include any hard dates and may take 2-3 years to be approved. The United States Forest Service and the Pechanga Tribe may need to be involved in the process at some point. SPAWAR is prepared to move forward on the estuary modeling, but Tetra Tech has not yet been funded for the watershed modeling; the two can proceed independently now, but they need to coincide in the end. During the next few months, the schedule will need revision and stakeholders will need to determine and agree upon the geographic area for the modeling. The RWQCB staff report and final problem statement will take about a year (anticipated Summer 2013). The implementation plan will be the final piece of the TMDL.

Technical Discussion – Review and Prioritization of Study Questions

Dr. Mike Welch (Consultant) led the review of technical goals and stakeholder questions (see PowerPoint presentation). The goal for the estuary study is to develop recommended nutrient WQOs or numeric targets based on the NNE approach. The goal for the watershed study is to develop recommended nutrient WQOs that protect beneficial uses and encourage BMP implementation to reduce loads. Mike reviewed the process for assessing and developing WQOs. The process for WQO development is as follows:

- Identify nutrient sources and loads:
 - What is the dry weather nutrient loading in the listed and unlisted reaches?
 - How does dry weather runoff contribute to hydrologic and nutrient budgets?
 - Are the nutrient WQOs more stringent than reference conditions (or what can be obtained)?
 - Do wet weather nutrient loads impact dry weather nutrient loads in the estuary, river, or tributaries?

- The wet weather load should be considered. The current standards do not take into account seasonality and are a “one size fits all” standard.
 - KEY TASK: Make sure wet weather input is considered
 - Are there predictable times or conditions under which assimilative capacity exists in the river or estuary? What are the appropriate WQOs for protecting the beneficial uses?
- Fate of nutrients assessment:
 - Evaluate ambient concentrations, quantify loads (what the modelers are doing), and quantify hydrologic inputs – these are the key tasks.
 - To be considered: biomass uptake and release, nutrient cycling, nitrification (will be incorporated in the NNE model), thresholds (fast vs. slow water, deep vs. shallow, etc.), whether the model can accurately capture short term or diurnal effects (and does it need to), sensitivity analysis (how sensitive the output is compared to the input and should the work plan include a sensitivity analysis to eliminate insignificant driving parameters?)
- Examine effects on beneficial uses:
 - What is the nature of some of the beneficial uses? We can identify metrics to determine if something bad has happened.
 - Assess the relationship between those parameters and what the actual water quality is – are there critical periods where beneficial uses may be impacted.
 - Are the SMR tributary beneficial uses actually impaired by nutrients?
 - Can treated effluent be discharged during the wet season?
 - How do beneficial use impacts correlate with flow, time of year, tides, etc.? What is the time frame for impacts (i.e. 4 hours or several days)?
- Identify thresholds for protecting beneficial uses: KEY TASK
 - Identify critical conditions or periods,
 - Applicability of published thresholds (the RWQCB will most likely examine this first),
 - Are the NNE Thresholds for algal biomass protective of Aquatic use? Can we use the NNE spreadsheet model or dynamic model to establish nutrient water quality objectives? How can targets and waste load allocations be established given that algal response varies with flow and canopy?
 - Limited Nutrient Approach – can one nutrient be limited and the problem goes away? Do other problems arise as a result?
 - In San Diego, the standard is derived from the USEPA “redbook” from the 1970’s, utilizing N to P ratios, and is currently a “one size fits all” standard. The SMR and estuary vary over time and with location and alternates in respect to N to P ratios. The river concentrations may be flow related.
 - Is a statistical approach appropriate for determining thresholds?
 - Should thresholds be made based on other parameters (i.e. flow, time of year, canopy cover, etc.)?
 - Relation of Indicator parameters to thresholds, and
 - Identify basis for developing thresholds.

The presentation concluded with the following additional thoughts:

- Modeling effort and assessing management options will help for the overall project. In addition, the stakeholders should consider using WQOs that are not a fixed number. A precise model is needed to predict what the nutrient concentrations are going to be. Will

the model be sufficient to form WQOs? The stakeholders need to identify areas that are off limits (i.e. USEPA, RWQCB) and realize this study will affect the whole region.

- During this process is there a time where beneficial use designations are revisited to determine appropriateness of designations? That is a difficult and problematic road which may be possible, but may be halted by the other stakeholders prior to reaching the board. Determining a SSO is a more effective manner to solve the issue versus removing the use. Seasonality and conditions may be taken into account where there is a set threshold for flow and when flow is above the threshold you don't have to determine compliance. During certain critical times of the year you could have relaxation during times of the year when they could assimilate.

Action items, Decisions, and Next Steps

In the next month or two, the stakeholders need to reassess the questions and ensure they are addressed in the existing work plans – anything that will not lead to the end game (completion of the project and approved TMDL) should be set aside. The stakeholders also need to ask for guidance from the RWQCB as to policy issues. Provide them with an overview of the project, provide specific questions, request assistance, and hopefully answers will be provided, but answers are not guaranteed.

It is possible that two documents should be created with two distinct purposes: one internal to the stakeholders and one external document. The external document will be similar to a negotiated contract, perhaps a work plan, which may be beneficial for the RWQCB, using a hybridized Third Party TMDL approach to the project because the RWQCB is writing the TMDL and the stakeholders are providing all the research for the TMDL. The internal document is the charter addressing the rules of engagement and defining roles and responsibilities of the stakeholders. The internal document is partially intended to gather data to support the regulatory action, which has a different set of stakes. The internal document could include, as conditionally approved by the stakeholders present:

- Who is a member and what that means,
- Who participates and what that means - these matter because different stakes are involved – people that have not been involved much or all,
- Roles and responsibilities – provide shared expectations; groups work best when they have shared expectations,
- Communication tools and decision-making,
- Group variation – not all necessary parties attended the current meeting,
- Expectations of the technical team – does there need to be a steering committee?
- Plenary sessions and different sessions when it is voting time,
- Avoid arbitrary and capricious actions (i.e. making it up as the project moves along)
- Resource contributions may be in a separate document

An alternative is to work within a timeframe and set dates to accomplish items so the project continues to move forward. The notion of providing a white paper to the board was raised, but the key questions need to be provided on paper. If timelines are set as to when a draft document will be submitted, that draft will eventually lead to a final document. Also, key parties need to be identified by a specified date. Within the next six weeks, parties will be contacted for participation. A week prior the potential parties will receive the position/white paper from the stakeholders. The overall goal is to have some answers to the questions discussed during this meeting after with meeting with the regulators for the meeting in March. The stakeholders need

to make it clear to regulators and other potential parties that there is a dedicated date for accomplishment of these items.

Development of rules of engagement is necessary for the stakeholders to move forward within the process. A work plan is a good idea and the Water Environment Federation's *Third Party TMDL Tool Kit* document may be of assistance for creation. Without an agreement, there may be a high risk as to the defensibility of the data (mainly for upstream and wet weather). Dave will talk to individual stakeholders and pull together the common themes and agendas, which will be an agenda item for the next meeting, as agreed by all present stakeholders.

A draft work plan will potentially be created for presentation at the February meeting. The Technical Team will meet with Jo Ann (Mark approved that SPAWAR and Stetson Engineering should be included) to flush out an annotated outline. This could be used to support a charter/agreement. Hopefully, an annotated outline will be presented during the next meeting (February). The annotated outline may take between three and six weeks and should be a team effort. Once complete, a more detailed timeline can be created.

Also, there is a need for an accelerated timeline for monitoring for the hydrodynamic modeling, including second and third party data sources with the most up-to-date data (per the contract managers). The short term focus will be on the estuary, and the long term focus will be the river. SCCWRP will send a letter as to what data they need and what they have available. The stakeholders have the responsibility to reply and provide SCCWRP any additional data. The letter from SCCWRP should be provided prior to the next stakeholder meeting.

Involvement of the regulatory community is premature at this point to make good use of their time. Once the annotated outline for the workplan is complete, the RWQCB can be briefed on the decisions to be made and provided the annotated outline for the context of those decisions. The stakeholders should provide the executive officer (Dave Gibson) a heads up that this is on its way to his desk. In the next six to eight weeks, a list of questions should be formulated for the RWQCB. Regular updates to the RWQCB should be part of the process moving forward. Dave will follow up with Cynthia within the next two weeks.

Parking Lot:

- Further refinement and recommended educational discussions on:
 - Competing beneficial uses
 - Critical beneficial uses
 - And how those have been handled with Loma Alta

Next Meeting:

San Luis Rey Water Reclamation Facility conference room
3950 N. River Road
Oceanside, CA 92054
Thursday 2/23/12, 10am to 2pm