

**Santa Margarita River & Estuary Nutrient Water Quality Objectives Project
Watershed Stakeholder Meeting Summary
May 17, 2011, 10:30-3:00**

Meeting Goals:

- 1) Revisit monitoring questions
- 2) Discuss draft of the technical memo to SDRWQCB on scope of nutrient WQO development for the SMR
- 3) Discuss first draft of the river nutrient monitoring work plan

Attendee List

Name	Organization	Email
Betty Fetscher	SCCWRP	bettyf@sccwrp.org
Con Kontaxis	CALTRANS	Constatine_kontaxis@dot.ca.gov
Greg Krysz	Bureau of Reclamation	Gkrzys@usbr.gov
Ben Drake	RCWD	bendrake@gmail.com
Fakhri Manghi	WMWD	fmanghi@wmwd.com
Arlene Chun	RCFC & WCD	abchun@rcflood.org
Danielle Wood	Upper Sta. Margarita Irrigated Lands Group	dwood@usmil.org
Mark Bonsavage	Camp Pendleton	Mark.Bonsavage.usmc.mil
Ashmita Sengupta	SCCWRP	ashmitas@sccwrp.org
Jeff Marchand	FPUD	jeff@FPUD.com
Scott Thomas	Stetson Engineers	Scottt@stetsonengineers.com
Martha Sutula	SCCWRP	Marthas@sccwrp.org
Joanna Wisniewska	San Diego County	Joanna.Wisniewska@sdcounty.ca.gov
Todd Snyder	San Diego County	Todd.snyder@sdcounty.ca.gov
Chuck Katz	SSC Pacific	Chuck.katz@navy.mil
Cynthia Gorham	SDRWQCB	cgorham@waterboards.ca.gov

Meeting Materials Distributed In Advance of the Meeting

- Technical memo
- Draft workplan
- March 22, 2011 meeting notes
- Technical analysis showing duration of flow for SMR tributaries

Summary of Meeting Decisions and Action Items

- 1) The group revisited the priority management questions to ensure all the major issues were addressed. The monitoring questions were revised into two major categories: core monitoring and special studies questions. Stakeholders concurred that the core monitoring questions were of the highest priority. Stakeholders agreed that two new special studies questions were added: 1) Can the River and estuary assimilate the discharge of treated effluent into the river during the wet season? and 2) What is the economic cost of existing and/or new regulation regarding nutrients to

watershed stakeholders? The stakeholders agreed that having a special study listed does not guarantee a commitment to fund it.

- 2) The group discussed the draft of the technical memo to the SDRWQCB on the scope of nutrient WQO development for the SMR. SCCWRP will send revisions to Todd Snyder (County of San Diego). Todd will be working with the group to finalize the memo and will also schedule a meeting with the SDRWQCB to discuss the memo and get feedback on issues raised.
- 3) The group discussed the first draft of the river nutrient monitoring plan. SCCWRP will work revise the draft site tables to incorporate changes from stakeholder input, select sites, develop a second draft of the work plan and begin work on the QAPP.
- 4) Special studies will not be included in the draft QAPP for Phase I Prop 84 funding. However, a brief prospectus and budget on each special study question will be drafted in order to discuss and prioritize them at the next meeting. This information will be used to budget Phase II Prop 84 funding requests.
- 5). Groups participating in the Ag Waiver program (Upper Santa Margarita Irrigated Lands Commission and Rainbow Creek Water District) will be contacting SCCWRP to let them know whether they plan to participate in study.

Abbreviated Meeting Notes

Updates

- The group discussed the status of the Prop 84 grant. Todd Snyder reported that recommendations are expected out this month and that everyone is anticipating that the Phase I will receive full funding.
- The group discussed the inclusion of groups who will need to comply with the Ag Waiver program. The consensus is that they are welcome to participate and can do so in two ways: 1) add cash or in-kind that contributes to the core monitoring program or 2) create a special study that is an add-on to the core program. If they chose option 1), then the QAPP and monitoring plan that is being developed by the SMR project could satisfy Regional Board requirements. If they choose option 2), then an addendum to the QAPP would likely be required. Danielle Wood reported that discussions with the Regional Board would occur following this meeting, and that she would touch back with SCCWRP on whether/how they are interested in participating.

Discussion of Core Monitoring Questions

The group revisited the monitoring question defined in the March meeting and identified core monitoring question and special studies (Table1). Discussion ensued on the prioritization of core versus special studies.

In general, there was consensus with the core monitoring questions.

With respect to the special studies to be conducted under this project, Ben Drake voiced his concern about the need for a special study on the economic impact of this project, for example set a baseline of where we are today and evaluate the impacts of the project in near future. Cynthia Gorham (RWQCB) responded to the need by adding that economic impact evaluation varies for each project and that an economic analysis is typically conducted when establishing basin plan objectives. The group recognized that SDRWQCB resources were limited and that this economic analysis may not be as thorough as the group would like. The group could choose to finance such an analysis.

Group acknowledged that groundwater was of great interest, and Chuck Katz raised concern about groundwater flow being potentially an issue even in the dry weather and if the wet weather model will also capture the dry weather groundwater flow. Martha explained that what we agreed as a group last time was to use surface water modeling to synthesize and identify where groundwater sources/sinks must be addressed. A second phase of work can include groundwater in specific places where it must be addressed. It was recognized by the group that building a groundwater model will require much more resources than available. Ben Drake suggested we use data from all existing models.

Mark Bonsavage commented that the linkage of NNE to beneficial uses was not clear. Martha Sutula responded by saying that the NNE has specific thresholds established by beneficial uses. What is less clear is what data were used to establish those thresholds and suggested that the group refer to the Tetra Tech (2006) document where the thresholds and data used to derive them are explained.

Table 1. List of core and special study monitoring questions

Type	Component	Monitoring Question
Core	Ambient Assessment	What are the ambient concentrations of algae and nutrients in the listed and unlisted SMR tributaries? How do these values vary spatially and seasonally?
	Loads	What is the dry weather loading from the SMR tributaries and how do the loads vary across the season?
	Modeling	What are the appropriate nutrient WQOs for SMR tributaries?
		How do the models compare in terms of accuracy, precision and bias in biomass predictions?
Special Studies	Assimilative capacity of river for nutrients	What are the rates of denitrification in streams of varying nutrient status during the growing season?
	Are NNE thresholds appropriate for the SMR watershed?	What is the exceedence frequency of algal biomass and nutrient concentrations relative to nutrient WQOs in reference streams?
		What is the relationship between algal biomass and benthic macroinvertebrates?
	Can treated wastewater be discharged during wet season	What is the assimilative capacity of SMR for treated wastewater during the wet season?

Technical Memo

The group discussed the draft technical memo. Todd Snyder said that overall, he like the memo, but certain changes in the text and tone are required. He also agreed to take over edits of the memo,

steward final changes to the document based on stakeholder comments, and then send the memo to the SDRWQCB, with the intent of requesting a meeting with SDRWQCB management to discuss the policy issues that need to be addressed. He was also interested in pursuing a MOU with the SDRWQCB on this project.

Arlene Chun noted that the definition of dry weather needed to be improved and offered to help with the changes to the text.

The stakeholders were unsure of whether they should include the request by Ben Drake to include the economic study of costs of nutrient regulation in this document. The group agreed to think about it and report back at the next meeting. They did want some language in the text of the memo to note that it was important that the cost of new regulations be evaluated in the process of basin plan objective development.

Stakeholders agreed that the unlisted reaches should be included in scope for the moment, with the intention of augmenting Phase II requests to cover sampling in these creeks.

Discussion of the Work Plan

Betty Fetscher (SCCWRP) presented a detailed explanation of the field data collection and analysis plan for the “full” version of the workplan (Table 2)

Tributary	Listing Status	No. reaches per tributary	No. sites per reach	No. times to sample per season
Upper SMR	Listed	4	2	4
Lower SMR	Listed	3	2	4
Upper and Lower Murrieta Cr.	Listed	3	2	4
De Luz Cr.	Listed	2	2	2
Redhawk Channel	Listed	1	2	4
Temecula Cr.	Listed	1	1	4
Sandia Cr.	Unlisted	1-2	3	4
Devil’s Cr.*	Unlisted	3	1	3
Fallbrook Cr.*	Unlisted	3	1	3

- A 30-day-since scour/wetting period is assumed as the minimum necessary to allow nuisance growth. In addition, the percentage of wet years at which the durations of flow are occurring will also be observed, in order to be more conservative about making the decision about threshold.
- The group discussed the protocol for measuring days of algal accrual at each site. Martha Sutula added that to determine number of days of accrual, we can use two techniques- look at precipitation events and figure out number of days since the last scouring event or calculate scour velocity based flow data to calculate scour instead of precipitation.
- Some members of the group had specific suggestions about the number of site events, etc. Martha Sutula will follow up with those individuals directly to solicit their input to this tabl, then use the numbers to generate a new work plan.

- The group wanted to see more emphasis on dissolved oxygen in the workplan. Martha Sutula agreed that SCCWRP would augment the number of samples for CBOD and present a “Cadillac” and moderate version to see what the cost implications were.

The group discussed various cost reduction options as the full sampling and work plan is over budget by \$150K. Martha Sutula (SCCWRP) introduced 5 options to address this issue-

- 1) Eliminate 2 (Devils and Fallbrooks) of the 3 unlisted sites,
- 2) Reduce temporal sampling – reduce validation data sets (up to four times per year in Year 1 (calibration data set), reduce to 2 during Year 2 (validation data set)
- 3) Reduce temporal sampling (reduce from up to four time per year to three times per year)
- 4) Combination of options 1 and 2
- 5) Combination of options 1 and 3

The group discussed the various options are tentatively chose 4. The group agreed that Martha would rework the workplan to incorporate this option. Greg Krzys mentioned that BR may have some money to support this effort.

The group wants to look into historical datasets available for calibration. Martha Sutula said that SCCWRP is providing in-kind match for Ashmita Sengupta to start modeling of the river this fall, using existing data.

Discussion of Special Studies

The group briefly discussed the four special studies options- 1) Stream nutrient assimilation and denitrification studies, 2) Natural Background of nutrients and algae at reference sites, 3) Relationship between algal blooms and benthic micro-invertebrates, and 4) Assimilative capacity of the lower SMR during wet season.

Scott Thomas pointed out that Camp Pendleton is concerned about developing better BURCs, and hence we need to make sure the threshold is set correctly.

The group agreed that SCCWRP will develop a 1-2 page prospectus for each special study component and develop a budget associated with it to prep for the next meeting.