

Basin Monitoring Program Task Force

August 24, 2009

ATTENDEES:

Jack Nelson, YVWD	Julie Carver, City of Rialto
Chandra Johannesson, City of Riverside	Lyndy Lewis, City of Corona
Val Housel, San Bernardino MWD	Cindy Li, CRWQCB
Gerard Thibeault, CRWQCB	Jayne Joy, EMWD
Hope Smythe, CRWQCB	Greg Woodside, OCWD
Linda Garcia, WMWD	Marsha Westropp, OCWD
Max Rasouli, City of Riverside	Sam Fuller, SBVMWD
Tim Moore, Risk Sciences	Mark Wildermuth, WE Inc.
Al Javier, EMWD	Andy Malone, WE Inc.
Dave Kachelski, Veolia Water/Rialto	Mark Norton, SAWPA
Norris Brandt, EVMWD	Regina Patterson, SAWPA

Call to Order

The Basin Monitoring Program Task Force meeting was called to order at 1:35 p.m. at the Santa Ana Watershed Project Authority office located at 11615 Sterling Avenue, Riverside, California. Introductions were made.

Meeting Summary Approval – July 15, 2009

Mark Norton presented the July 15, 2009 Meeting Summary for approval. Gerard Thibeault and Greg Woodside requested clarifications/revisions that will be incorporated. Hearing no further comments or revisions, the Meeting Summary was received and filed as amended.

Briefing – SAWPA's Salinity Management Program Study – SAWPA

Mr. Norton provided a brief presentation introducing the Santa Ana Watershed Salinity Management Program. He described each of the three phases as follows:

Phase 1 - Identify needs and validate watershed salt budget assumptions and calculations, establish salt export needs for various planning horizons, identify potentially feasible projects and BMPs to achieve salt balance in the watershed, and develop and quantify scenarios that maximize the use of the SARI as a salt management tool. We are looking at the capacity of the SARI and what is needed for the future.

Phase 2 - The key objectives are to optimize the SARI system configuration, meet salt export goals and maximize water recovery (currently being done for the SARI by EMWD and WMWD), and evaluate SARI operations to achieve economic viability. Many sections of the SARI are over 40 years old and are in need of repair and relining. This will expand the analysis of much of the work that has been done. The entire pipeline capacity of the line has been purchased.

Phase 3 - Develop SARI CIP and O&M plan by identifying solutions for specific issues (Schleisman siphon, SCADA system, Reach IV-E cleaning), preparing an updated CIP, conducting an assessment of the O&M program and then preparing a final report.

The first workshop will be prior to the draft report and will be held in the third week of September. Results will be presented by WE Inc., comments will be received, and then a draft report will be issued.

Basin Plan Amendment for SAR Wasteload Allocation – WE Inc. and Risk Sciences

Andy Malone presented discussion items for the Basin Plan Amendment for the Santa Ana River Wasteload Allocation stating the main issues are with TIN and TDS. The estimate for recharge to Chino-South is 4.3 mg/L to 5.0 mg/L TIN including nitrogen loss, exceeding the objective of 4.2 with no assimilative capacity in Chino-South. That issue will be addressed with the new wasteload allocation scenario. The TDS is an issue because several agencies wanted to explore relaxation of some of the TDS limits in the wasteload allocation so that was another reason for developing some of these wasteload allocations. He provided a map showing Chino-South upstream of Prado and downstream of Riverside A, and said the main dischargers affecting water quality of the SAR in Chino-South are Rialto and RIX and various points of discharge in Riverside. Discussion of the discharge locations continued.

Mr. Malone reported the wasteload allocation results were indicating that the concentration is much less than 650 mg/L TDS, so there is some capacity for increased TDS if you are only looking at the 650 mg/L TDS surface water quality objective. The capacity to raise TDS at some of the upstream dischargers will affect water quality below Prado and still comply with 650 mg/L TDS.

Mr. Malone presented the question, “What should be the compliance metric in the wasteload allocation for volume-weighted recharge to all groundwater management zones?” In the wasteload allocation report we report on a 1-year average and a 5-year average as potential metrics to compare to the water quality objectives for management zones. This Task Force has never decided on a method to use to compare to those groundwater quality objectives. He discussed the scenarios and explained that what’s reported in the wasteload allocation report would be the maximum 1-year value so it would be the maximum of all 1-year averages. For the 5-year rolling average it would be the maximum, which is less than the 1-year.

Mark Wildermuth said there is nothing in the history of the Basin Plan that says that it must be a 1-year metric. Mr. Malone said it is easy to take the 1-year data and make a 20-year rolling average. Mr. Wildermuth said we have to get some kind of agreement or direction on what is the right thing to use, and then we can come back and tell you. No method has been agreed on.

Mr. Malone said protection of the beneficial use is the most important factor. A longer period of averaging seems logical unless protection of the beneficial use is put in jeopardy. Tim Moore said there are regulatory issues about how permit limits can be written by either monthly or annual averages. Mr. Malone said the questions and issues presented today have been provided to SAWPA to be placed on their web site.

Mr. Moore presented “Proposed Rationale to Revise the Nitrate-Nitrogen Objective in the Chino-South Management Zone” stating the Regional Board has to update the wasteload allocation. In the absence of any action by this Task Force, the report by WE Inc. shows that our current wasteload allocation will not achieve the objectives; particularly in Chino-South for TDS. That means that the Regional Board cannot approve the wasteload allocation as it is. They would have to make adjustments to the actual load allocations to assure the Chino-South objectives were met. A change to the objective itself is being considered. A strawman of the rationale was presented at the last Task Force meeting. It has now been rewritten with a slightly different justification for how it could be done. He began discussing the items and said if we do nothing the Regional Board will have to rewrite all upstream permits and the new number is going to be 8.4 mg/L.

The 2008 numbers for TIN concentrations measured in Reach 3 at the sampling locations adjacent to the Chino Basin Management Zone are 7.7 mg/L at MWD Crossing; 5.9 mg/L at Van Buren; 7.3 mg/L at Etiwanda Avenue; and 7.2 mg/L at Hamner Avenue. This does not account for the 50% nitrogen loss coefficient. The long term average is between 4.6 mg/L and 4.8 mg/L. The whole range is between 4.6 mg/L and 5.0 mg/L. Merely extending the average grid may not get it to compliance.

If we considered raising the nitrate-nitrogen objective to 5 mg/L, then all current and projected effluent discharges would comply with the new water quality objective under a wide variety of alternative reclamation scenarios. Nitrate-nitrogen at 5 mg/L is presumptively protective of the MUN use in Chino-South as stated in the previous Basin Plan Amendment, the associated staff report and the RGD. If the objectives are set to 5 mg/L the permit limits can be 10 mg/L because then we can experience a 50% nitrogen loss as it percolates through the soil interface. If you set all the effluent limits to 10 mg/L then you will not cause or contribute to an exceedance of the nitrate-nitrogen objective in Chino-South. Setting effluent limits to 10 mg/L would not allow the water quality in Reach 3 to degrade because the permittees (except Riverside) are already at 10 mg/L. Their effluent limits would stay the same. If we do nothing, their limits would have to go to 8.4 mg/L. If we raise the objective to 5 mg/L the current effluent limits will remain unchanged for RIX and Rialto.

The TIN limits for the City of Riverside’s discharge are presently set to 13 mg/L for all flows less than 38 mgd and to 10 mg/L for all flows greater than 38 mgd. The new permit limits would require Riverside to comply with 10 mg/L TIN for all discharge flows. Actual water quality in Reach 3 and percolating to the Chino-South management zone would be better than presently allowed. Since water quality will not be lowered by Riverside’s revised effluent limits, there is no need to demonstrate that the proposed change in groundwater objectives would provide maximum benefit to the people of California. Discussion ensued.

The compliance issue today is with nitrate-nitrogen at Chino-South. This approach resolves the Chino-South issue under the alternative scenarios given to WE Inc. to run.

Mr. Moore presented “Exploring Alternative Wasteload Allocations for TDS in Reach 3 of the SAR” which provides data details from various reports that describe where we’re at for TDS with annual, 5-year and 20-year averages.

The current surface water wasteload allocation of 650 mg/L for TDS in Reach 3 was established to assure compliance with the surface water objective of 650 mg/L TDS in Reach 2.

The Reach 2 surface water objective was set to protect the original TDS objective assigned to the Forebay Groundwater Basin in Orange County (now obsolete and deleted from the Basin Plan). That objective was established based on the estimated ambient TDS concentration at that time.

It may be possible to increase the TDS effluent limits for dischargers above Prado provided that average flows recharging from Chino-South remain below 680 mg/L, the 5-year rolling average TDS concentration at Prado remains below 650 mg/L, and the average TDS concentration in baseflows remain below 700 mg/L at Prado in August. Greg Woodside said that the Orange County Management Zone does not have assimilative capacity for TDS, and this factor would need to be considered before TDS limits were increased.

In Scenario 5, Mr. Malone suggested adding March Air Reserve Base in at 6 mg/L for TIN, keeping everyone else with their existing permit limits for TDS, and then take Riverside down on TIN from 13 mg/L to 10 mg/L TDS.

Mr. Malone stated he would run one scenario and then meet with Greg Woodside and determine rules for scalping off some of the high storm flow events.

RWQCB Reclamation Guidance Document (RGD) Policy – Risk Sciences
This item was not discussed.

Future Meetings

Wednesday, September 23, 2009 at 1:30 p.m.

Wednesday, October 21, 2009 at 1:30 p.m.

Adjournment

The Basin Monitoring Program Task Force meeting adjourned at 4:10 p.m.

Handouts (available at www.sawpa.org)

1. Nitrate-Nitrogen objectives in the Chino-South Management Zone
2. Exploring Alternative Wasteload Allocations for TDS in Reach 3 of the SAR
3. WE Inc. Presentation “Wasteload Allocation on the SAR”