

# Salinity Management and Imported Water Recharge Plenary Workgroup

July 31, 2008

**SIGNATORIES:**

Jayne Joy, EMWD  
Behrooz Mortazavi, EMWD  
Edward Filadelfia, EMWD  
Marsha Westropp, OCWD  
Sam Fuller, SBVMWD  
David Aladjem, SBVMWD/WMWD  
Mark Bulot, SBVMWD  
Jack Safely, WMWD  
Rod Cruze, City of Riverside  
Thomas White, City of Corona  
Val Housel, City of SBMWD

**OTHER ATTENDEES:**

Jack Nelson, YVWD  
Gerry Thibeault, CRWQCB  
Tim Moore, Risk Sciences  
Dennis Williams, Geoscience  
Ben Pak, CBWM  
Mark Wildermuth, WEI/STWMA  
Mark Norton, SAWPA  
Regina Patterson, SAWPA

**Call to Order / Introductions**

The Salinity Management and Imported Water Recharge Workgroup meeting was called to order at 2:05 p.m. at the Santa Ana Watershed Project Authority located at 11615 Sterling Avenue, Riverside, California. Introductions were made.

**Approval of May 22, 2008 Meeting Summary**

Mark Norton asked if there were comments or revisions to the May 22, 2008 Meeting Summary. Hearing none, the meeting summary was received and filed.

Upon motion by Jack Nelson, seconded by Jayne Joy, the motion unanimously carried:

**IWR 08/07-01**

**MOVED**, approve the May 22, 2008 Meeting Summary as presented.

**Other – Tim Moore**

Tim Moore provided copies of a draft “Petition to Vacate a Final Rule of the US EPA that Unlawfully Creates a New Exemption to Clean Water Act Permitting Requirements”.

**Initial Version of Methodology – WE Inc.**

Mark Wildermuth provided an outline of the TDS and Nitrate Projection Methodology Report dated July 22, 2008. He stated that Items 1 and 2 would be in the introduction and the other items will be identified as Sections. Section 3 as it will be labeled, will include a Method Summary with a full blown numerical model in the basins or a constantly stirred reactor analysis. The appropriate choice has to be made for the basins and a case study and then test both tools together. It is currently outside the scope of work.

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Mr. Norton asked if a warm-up calibration like what was done in the Chino Basin Water Resources Management Study is necessary for each of the basins? Mr. Wildermuth said no. That time history was started in 1900, then in the early 60s and finished in the early 90s. There were multiple basin layers within a vadose zone. Consequently, calibrating initial conditions in a saturated zone or vadose zone was necessary. Mr. Wildermuth said it is an ideal process to do, but that it was an extreme condition, and in most cases we would be governed by that initial condition.

A question was asked on a watershed scale, how do we take it to adjacent basins such as Orange County and Riverside County and make a projection of impacts? Only people looking at imported water recharge or who have maximum benefit can break it down into pieces. In considering the cascading model, moving upstream and downstream (fluxes from one management zone to another) have to consider using some kind of surface water model and include surface water discharges and river flows and route those downstream. Hopefully there are no flow reversals, and for numerical models, like in the Chino and San Bernardino models, this can be done first and then do everything else. That is the concept.

David Aladjem said in the Cooperative Agreement various models were identified. The analysis would start upstream then take in the boundary conditions and whatever would be leaving that basin. If that is right, maybe we could say, if Bunker Hill is done November 1<sup>st</sup> and Riverside December 1<sup>st</sup>, then we may have the overall work done in time. Would that work? Mr. Wildermuth said it will involve tedious detail and that could be a recharge flux somewhere downstream. Mr. Aladjem reported that SAIC and OCWD put their models together, we could use that again if that would help.

Mark Bulot said to set up the first concept that those entities managing their basins have models that are acceptable, industry acceptable and are within acceptable error margins. Those would be used for the groundwater flow and would provide the opportunity for each entity to develop 20 year salinity projections and annual flux of water to and from the adjacent basins. The aspect of trying to have a uniform hydrologic period over the entire watershed is not that important. Eventually we will have a combined effort, but that it is not necessary now. The initial commitment to report on water quality is to address issues before they become problematic. There will be different tools in 3 years. We have each gone through a process of accommodating. We will advance and update as needs demand. The idea is to provide that plan with the understanding to develop practical cost solutions when we begin to have salinity issues and demonstrate when we are improving and not seeing it in our models.

Mr. Wildermuth presented a groundwater flux component matrix for the Santa Ana River management zones.

Gerry Thibeault agreed that to project water quality in our basins that receive water over a 20 year period, we need to make sure we have a 20 year projection. Mr. Bulot said we do not want to necessarily have a one size fits all model. Dennis Williams said in a simplistic approach, each agency will have their own tools.

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Mr. Bulot said we need a coordinated effort to prepare the report and so that everyone has data from the Basin Monitoring Program Task Force and possibly look at it as combining a technical memo. We will see difference in water quality and in trying to assess what will happen in the future, how we can look at managing strategies, finding where sensitivity lies and get a better understanding of our hydraulic system.

Dennis Williams said anyone analyzing the input output or distributed parameter for the groundwater model will and should consider all fluxes.

**Mr. Wildermuth will write the draft report within the next two weeks.**

Mr. Norton said a coordinator needs to be identified. If a recharging agency has salt fluxes and are not meeting the standards, someone else needs to step in and make sure the model does what is intended. Mr. Wildermuth said if the scenario plays out, the group has to make a choice. If it is within the permits of those agencies, there is nothing to talk about. Currently we do not have enough to cover until true costs are determined. **Mr. Wildermuth will provide a scope and timetable for the next meeting.**

#### SAWPA FY 08-09 Budget

Mr. Norton presented the FY 08-09 Imported Water Recharge Draft Budget stating the item labeled "RGD Finalization" will be replaced with "Risk Sciences - Facilitation" and that a **corrected version of the Draft Budget would be prepared.**

#### Facilitation Support – Risk Sciences Task Order

Mr. Norton presented Tim Moore's scope of work and cost estimate for services in support of the effort.

#### Future Meetings

- Monday, August 25, 2008 at 2:00 p.m.
- Tuesday, September 16, 2008 at 2:00 p.m.

#### Adjournment

The meeting adjourned at 4:45 p.m.