

Emerging Constituents Workgroup

August 25, 2009

ATTENDEES:

Bonita Fan, IEUA	Chandra Johannesson, City of Riverside
Greg Woodside, OCWD	Max Rasouli, City of Riverside
Darrell Smith, Floating Islands West	Lyndy Lewis, City of Corona
Gina Pineda, OCWD	David Aladjem, SBVMWD/WMWD
Craig Miller, OCWD	Sam Fuller, SBVMWD
Jason Dadakis, OCWD	Mark Bulot, SBVMWD
Bart Koch, MWDSC	Edward Filadelfia, EMWD
Melissa Dale, MWDSC	Jayne Joy, EMWD
Roger Lewis, LACSD	Julius Ma, EVMWD
Linda Garcia, WMWD	Gerard Thibeault, CRWQCB
Bobby Gustafson, City of SBMWD	Hope Smythe, CRWQCB
Valerie Housel, City of SBMWD	Tim Moore, Risk Sciences
Oliver Pacifico, CDPH	Mark Norton, SAWPA
Sean McCarthy, CDPH	Regina Patterson, SAWPA
Kristen Wardlaw, YVWD	

Call to Order / Introductions

The Emerging Constituents Workgroup (EC) meeting was called to order at 1:35 p.m. at the Santa Ana Watershed Project Authority located at 11615 Sterling Avenue, Riverside, California. Introductions were made.

Approval of May 19, 2009 and July 14, 2009 Meeting Summaries

Mark Norton presented the May 19, 2009 Meeting Summary for approval. Greg Woodside asked that two corrections be made. On page 2 under the heading 303(d) List, delete the word "SARI" in the second sentence. Under the heading Antidegradation, rewrite the fourth sentence to state "We merely have to show that it should not be authorized unless doing so provides maximum benefit to the people of California." Hearing no further revisions, the Meeting Summary was received and filed as amended.

Mr. Norton presented the July 14, 2009 Meeting Summary for approval. Hearing no comments, the Meeting Summary was received and filed as presented.

Preliminary Design – Phase II

Tim Moore presented handouts entitled "Due Diligence: Investigating Emerging Constituents" and "Candidate EC Matrix for Characterizing Groundwater Recharge Projects" stating that he will attempt to narrow the list of constituents that would be recommended for further investigation or characterization in the Santa Ana Watershed with respect to groundwater recharge. We have committed ourselves to a purpose driven program. The monitoring had a specific purpose that must now be extended down to the specific chemicals we elect to monitor for occasions and frequencies. Excerpts from the various presentations given over the last year were provided to provide background for the matrix. This group agreed that in addition to

these regulatory purposes, any future characterization should be informed by whether we have reasonable, reliable, accurate methods to do the investigation and if there is reason to believe that what we were looking for is something we would/should expect to see. Where we have the information, that what we were looking for either served the purpose of telling us something about the fate and transport of recharge and effluent in the region, or was on the list because it represented some elevated potential or injury to humans or aquatic organisms. We should look at the chemicals that tell us something new so that we are efficient in the selection of chemicals to monitor.

The list began with 12 or 13 unregulated contaminants that were required in the permits by some agencies and in waste discharge requirements (now obsolete or abandoned) for the recharge of State Project water or Colorado River water in the region.

The chemical list started with the same class/types of chemicals DPH started with; pharmaceuticals, pesticides/herbicides, industrial chemicals, hormones and other. Within those chemical categories, he reported he listed those things which had either been detected in source water or drinking water in the United States, or had been detected by Inland Empire's monitoring program or the SAR study. The methods column describes the state of the art method for detecting each of the chemicals. The LC-MS method is the isotope dilution method. When you see detection limits of 25 and 50 you are usually no longer talking about isotope dilution but GC-MS. All of the studies looked at different things, so if there is a blank row in a column it should not be taken as non-detect because it may be that the chemical did not get looked at. Every place where there was number greater than 50% the number was inserted. He briefly discussed the excerpts.

David Aladjem asked why each chemical highlighted in yellow was chosen? Mr. Moore responded stating he assumed he needed at least one or two from each category so he looked for the top two. The Carbamazepine and Gemfibrozil were frequently detected in the sources and in drinking water. It was being detected by IEUA and in the river, and it was strongly recommended by the experts.

Discussion ensued regarding the chemicals and Mr. Moore asked what this group wants to do next? What should a long term investigation look like? We need something that tracks progress and something to supplement existing TOC, TDS and fate and transport tracking systems. We have the expert recommendations, answers to the questions of what we can measure widely today, some assessment of how frequently we expect to see these things and we have some preliminary work on the relative risks of these things. Phase 2 can be designed from this. This is a job that may never be done so this is not the last time we'll ever ask these questions. What should we care about and what should we be looking for and why? It is obvious that we don't need to look for all the same things we looked for the first time. Other than saying that one or two chemicals are needed from each class, no assumptions have been made about what was too few or too many; there was no minimum or maximum number. Does each chemical serve a purpose? Does the omission of a chemical deprive us of a purpose that no other chemical can serve? What is the unique contribution of each new chemical added and what is the unique loss if omitted?

David Aladjem asked if Estrone would be added to the list? Mr. Moore said yes.

Mr. Moore stated that the expert panels' charge was to develop a project specific list for the effectiveness of that treatment process in that groundwater replenishment system.

Linda Garcia asked if cost information could be provided? Mr. Moore said yes. The incremental cost of the next reported chemical is minimal.

Mr. Moore said he would prefer to write it up at least once a year and continue to fall back on the annual re-evaluation. Dischargers will do monitoring at their plants prior to discharging.

This group committed to a draft investigation program for submittal to the Regional Board by September. We'll provide a bulleted outline and send it for informal confirmation in September.

Discussion ensued as to whether monitoring locations should also be located in the SAR and near groundwater recharge locations.

Mr. Moore said he will quickly prepare questions, by agency, to think about groundwater wells and where we can put monitoring locations, where sampling is occurring now, and how often sampling is occurring so that we can see what we have in the works. This will provide some structure.

Blue Ribbon Panel – Status Update

There was nothing new to report.

Future Meetings

Tuesday, September 22, 2009 at 9:30 a.m.

Tuesday, October 20, 2009 at 1:30 p.m.

Adjournment

The Emerging Constituents Workgroup meeting adjourned at 3:50 p.m.

Handouts

Due Diligence: Investigating Emerging Constituents – Risk Sciences

Candidate EC Matrix for Characterizing Groundwater Recharge Projects – Risk Sciences