

Emerging Constituents Workgroup

April 30, 2009

ATTENDEES:

LeAnne Hamilton, IEUA
Craig Miller, OCWD
Greg Woodside, OCWD
Marsha Westropp, OCWD
Jason Dadakis, OCWD
Kathy Kunysz, MWDC
Jeff Mosher, NWRI
Roger Lewis, LACSD
Linda Garcia, WMWD
Bobby Gustafson, City of SBMWD
Valerie Housel, City of SBMWD
Sean McCarthy, CDPH
David Trujillo, JCSD
Jack Nelson, YVWD
Karen Baroldi, OCSD

Thomas Meichtry, OCSD
Craig Justice, City of Riverside
Max Rasouli, City of Riverside
Lyndy Lewis, City of Corona
Joe LeClaire, WE Inc.
Sam Fuller, SBVMWD
David Aladjem, SBVMWD/WMWD
Douglas Headrick, SBVMWD
Edward Filadelfia, EMWD
Gerry Thibeault, CRWQCB
Tim Moore, Risk Sciences
Mark Norton, SAWPA
Regina Patterson, SAWPA

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 March 24, 2009 Meeting Summary

Mark Norton asked if there were comments or revisions to the March 24, 2009 Meeting Summary. Prior to the meeting, Carrie Guo provided written comments that have been incorporated. Hearing that, the meeting summary was received and filed as amended.

Risk Sciences Task Order and Funding Support Status

Mark Norton presented the approved Task Order for Risk Sciences for tasks performed for the Emerging Constituents Workgroup, Phase 2. This was dependent on funding. Letters have been sent to SBVMWD and WMWD for their funding support. Sam Fuller reported they are including it in their budget for the next fiscal year. Linda Garcia reported WMWD will be acting on it soon.

Develop Preliminary Design - Part I – Risk Sciences

Tim Moore stated a link to access the Phase 1 Summary Report on SAWPA's web site will be provided.

Mr. Moore discussed the following "Key Conclusions from SCCWRP's EC Conference":

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- 1) **EC monitoring should be investigatory not regulatory** – The monitoring data on its own should not be used to skip to an enforcement or compliance step, but if you end up with data that indicate a potential problem environmentally or human, we have a separate process that the data feeds into. It is decided upon if there is an objective or criteria for that. We don't want data going from monitoring to enforcement without that intermediate step of deciding what's the right number.
 - 2) **EC monitoring initiatives should encourage voluntary programs** – Nearly everything that has been done to date has been done by a voluntary program. If we are proactive and we do things voluntarily, we defer the desire to have to act in a mandatory way.
 - 3) **EC monitoring programs should be proactive, adaptive and dynamic** – This was a recognition that you don't have to wait for things to be perfect to act. Doing nothing is not an option.
 - 4) **Risk communication plan is an essential element of effective EC monitoring** – It should be done at the beginning. You don't wait until after you have the data to determine how to respond. LeAnne Hamilton asked who should be communicating this? Mr. Moore said it did not come up. The message may have been that it should be decided ahead of time. Those things are to be designated well in advance.
 - 5) **EC monitoring efforts should be purpose-driven (what is the question?)** – There is no opposition to this view. EC monitoring should be designed to answer a specific question. The purpose needs to be carefully and explicitly defined.
 - 6) **EC monitoring should be risk-based (presence, prevalence, persistence, potency and should be evidence of a problem)** – Craig Justice said one of the issues that comes up is those constituents that have toxic data, typically get rated high because of the mere fact that there are data. This is a continuous struggle.
 - 7) **EC monitoring should be site-specific, project-specific, media-specific, etc.** – If there is no such thing as generic default, every monitoring program should be custom. It matters whether or not you are discharging to ocean water, fresh water, a lake or a river. Is it stormwater, effluent, secondary effluent, or tertiary effluent? Was disinfection done with ozone or chlorine?
 - 8) **EC monitoring should be tiered and phased based on trigger levels** – They suggested the following for what our screening criteria should be and how we deal with it. Take the chemicals that we have toxicological and epidemiological data for which we have done MCLs, water quality criteria or objectives. How many nanograms per liter was the objective set at? Recognize that those criteria have their built-in safety factors. This is what the FDA does when they set toxicological thresholds, it's what EPA does when they look at pesticides. There are very few chemicals that will have a low toxicological profile.
 - 9) **EC monitoring should recognize and build-on pre-existing efforts (not reinvent wheel)** – It provides a technical basis for ranking things and for taking limited resources and allocating them.
 - 10) **EC monitoring should be more structured based on chemical classes** – In addition to chemical similarity, they also thought that chemicals could be grouped by their modes of action whether it was a neurological activator, endocrine disruptor or carcinogen. Knowing how it operates may be more useful than knowing what it's used for. The modes of action are how you find similarities in a chemical and what you expect them to do in the environment and with people. Modes of action for the known chemicals are a better way. Some chemicals behave similarly in treatment processes when exposed to the environment. Some degrade by sunlight, absorption, or bacterial degradation and knowing that could tell

us something about effective treatment choices. What you should expect to find if a wastewater system is working versus not. These three elements for classifying chemicals were thought to be more functional and more useful than how we do it today.

- 11) **EC monitoring programs should develop explicit data quality objectives** – What question are the data designed to ask? How would it be used? How will that question be asked? What are the data not intended to be used for? It may be appropriate to use that number for something like posting beach warnings, where a management decision has to be made quickly. The data are not strong enough to support a regulatory decision. The Ocean Plan adopted a single sample maximum for bacteria to be used as a notification structure but then went on to say that this is not be used alone to support 303(d) listings.
- 12) **EC monitoring programs should prefer data quality to data quantity** – More chemicals does not tell us as much as more data about a few things. Classifying things for the things we have good methods for and using surrogates for other things, is more useful to us. We are past data quantity, we need data quality. More of the right kind of data.
- 13) **EC monitoring programs should describe appropriate and inappropriate use of data** – Same as item 11.
- 14) **EC monitoring should be prioritized based on observed environmental problems and real opportunities to provide public health benefit** – There has to be a technically defensible basis for including that there might be a harm. Can we or should we assume that all the chemicals in a class should be treated in the same way? We could flip the burden of proof contingently.
- 15) **EC monitoring should emphasize developing new knowledge and de-emphasize efforts that simply confirm what is already widely known and expected** – This is redoing the same, not adding to the knowledge base, not doing anything new that helps us make decisions. We should be expected to go back and adopt a proactive dynamic monitoring system and focus what available resources on things we have problems on. This is identical to the strategy being used in the Middle Santa Ana River bacterial study. Gerry Thibeault said sometimes monitoring doesn't have to be to develop new information but to help catalog what is going on, and to know in the future what happened. Mr. Moore said we will see that when we get to where we think our objectives are. We should reprioritize spending.
- 16) **EC monitoring should be coordinated between jurisdictional and statutory authorities** – The State Boards and Regional Boards have the authority to require the dischargers to go out and monitor what they say. One of the things we most want to know is what's there and what's being delivered.
- 17) **EC monitoring should not presume that presence = problem** – How to reasonably prioritize things. There wasn't a commitment to this.

Mr. Moore said what we need to know most is our own local data.

Mr. Moore provided a diagram of the collapse of a fish population in a lake in Canada after exposure to a synthetic estrogen. He also handed out and discussed an outline entitled Due Diligence: "Regulatory Purposes for Investigating ECs" to decide what regulatory purpose we want our investigation program to serve.

- 1) **To determine if drinking water sources are under the influence of wastewater** – We want to make sure we recognize this is something DPH will ask for. What purpose does it serve

for us? We'll take comments and try to implement them into the next outline. We want to make sure this list represents what a regulatory agency can ask you to monitor.

- 2) **To characterize the prevalence of ECs in the watershed** - To establish a baseline to assess trends, inform development of EPA CCL and identify toxicological and epidemiological research needs.
- 3) **To evaluate fate and transport of ECs** - If you have the toxicology you have some way to track. There are also BMP requirements. Greg Woodside suggested adding whether we would want to look at quantifying degradation by natural processes.
- 4) **To evaluate treatment effectiveness** - Can serve as a surrogate for more difficult to measure things like pathogens and may guide our treatment process selection efforts in plant design/redesign. As things get adopted, they may become issues for BMPs. Jeff Mosher suggested adding in "ensuring that treatment processes are operating properly". Mr. Moore said he will add it back in.
- 5) **To address public concerns and protect public confidence - proactively** - These are considered the minimal responsibilities of regulatory agencies. Response they are able to address. Doing nothing was not an option. The public wants to know you are doing something, so this is how we address that.
- 6) **To assist other valid government research needs** - He discussed the effectiveness of pesticide labeling regulations. There are things you shouldn't see in sewage or effluent. If you are seeing it there, that means it could imply that the label needs adjustment. It helps to determine the effectiveness of their regulatory strategy.

Mr. Moore provided the following items that were left off the list: 1) Inappropriate uses of these data at this time would include things like making 303(d) listings. If it is set up as a monitoring characterization program, after you set it up as a beneficial use assessment program, it is structured for that purpose, you don't set up as a monitoring characterization program. You have to know that is your purpose and declare it. If you don't declare what it is, it is considered an inappropriate use; 2) It is an inappropriate use to use the data to translate narrative objectives. We do not have the science yet. When it becomes available, that may justify establishing numeric objectives; 3) We can make a case that these ought not be used to assess antidegradation; and 4) Whether or not ECs, without separate action, are automatically to be used as BAT.

LeAnne Hamilton asked if we can stipulate, in the beginning, that this is investigatory and not regulatory? Mr. Moore said saying that may not be good enough. They want stronger language.

Mr. Norton said he will send the final Phase 1 Summary Report with a cover letter to the Regional Board (CD and hard copy).

Future Meeting

May 19, 2009 at 1:30 p.m.

Adjournment

The Emerging Constituents Workgroup meeting adjourned at 4:20 p.m.

Handouts

1. Task Order - Risk Sciences
2. Key Conclusions for SCCWRP's EC Conference
3. Collapse of fish Population after Exposure to a Synthetic Estrogen
4. Regulatory Purposes for Investigating ECs