

RMP Winter Sampling Meeting
January 17th, 2007 San Francisco Estuary Institute,
7770 Pardee Lane, Oakland, CA
Meeting Minutes

Attendees:

Karen Taberski, RWQCB
Tong Yin, RWQCB
Paul Salop, AMS
Tom Hall, EOA/South Bay POTWs
Kristen Kerr, EOA
John Oram, SFEI
Ben Greenfield, SFEI
Meg Sedlak, SFEI

The Status and Trends program currently samples in July and August to minimize the impacts of seasonal variation. Prior to 2002 when the randomized sampling plan was introduced, the program sampled in wet season. As part of the redesign of the Status and Trends program that the TRC/SC is currently undertaking, the RMP is considering wet season sampling. The purpose of the winter sampling meeting was to discuss regulators' and RMP stakeholders' needs and concerns regarding this proposed additional sampling.

John Oram presented preliminary statistical analyses of wet and dry season sediment and water results from historical Status and Trends RMP data. Significant seasonal differences were seen in some contaminants (see table). Overall, water samples showed more seasonal differences than sediment.

Contaminant	Difference?		
	No	Greater Wet	Greater Dry
WATER			
Ag - Total	X		
Ag - Dissolved	X		
Cu - Total		X	
Cu - Dissolved	X		
Hg - Total	X		
Hg - Dissolved		X	
Ni - Total		X	
Ni - Dissolved		X	
Pb - Total		X	
Pb - Dissolved		X	
Se - Total	X		
Se - Dissolved		X	
TSS		X	
Dieldrin - Total	X		
Sum of Chlordanes - Total		X	
Sum of PAHs - Total	X		
Sum of PCBs - Total		X	
SEDIMENT			
Hg	X		
Dieldrin	X		
Percent Fines	X		
Sum of Chlordanes	X		
Sum of PAHs	X		
Sum of PCBs		X	

The wet season tends to have highly variable precipitation and contaminant loading. Within each weather event, concentrations can vary substantially. In addition, concentrations also vary between weather events.

RWQCB staff indicated that RMP data is used to develop Reasonable Potential Analysis (RPA). South Bay dischargers use total measured concentration for National Pollutant Discharge Elimination System (NPDES) and the maximum concentration at three sampling stations to establish the ambient concentrations. South Bay dischargers do not receive dilution credit due to the shallow bathymetry of the southern portion of the Bay and the low flows in this section; the concentration measured at the point of discharge must be at or below the permitted level. Central Bay dischargers are permitted based on concentrations measured at the Yerba Buena Station. A 10:1 dilution credit is applied; the concentration measured at the point of discharge can be up to ten times greater than the ambient value.

State ambient water quality regulations require that the maximum measured concentration be used in regulation of water quality and permitting. The maximum value currently refers to the maximum concentration in the record; however, there is discussion of switching to a bracketed event.

The group commented on the significant variability that occurs in the wet season of flows, concentrations of contaminants, and total suspended solids. It would be difficult to characterize this variation through one sampling event and even harder to decide which event to sample to provide a “representative” characterization of the winter/wet weather conditions. It was decided

that the existing historical data base was sufficient for now for regulatory purposes; however, the group recommended that special studies be conducted periodically to update the wet weather information at the three stations that are used for permitting.

Action Items

- Comparison of dry season random data to dry season non-random data
- Investigate possibility of comparing data from shallow and deep locations.

These items, along with a few others, will be addressed in a special chapter in this year's RMP Annual Monitoring Results. This issue celebrates five years of monitoring under the random sampling design. In addition to disseminating recent monitoring results, the report will address the question "What have we learned from five years of spatially balanced random sampling"? Analysis will focus on a comparison of historic and random monitoring results, dry versus wet season contaminant levels, and shallow versus deep sediments.