EXCERPT

Alameda Countywide
Clean Water Program

Contra Costa
Clean Water Program

Fairfield-Suisun
Urban Runoff
Management Program

Marin County
Stormwater Pollution
Prevention Program

Napa County
Stormwater Pollution
Prevention Program

San Mateo Countywide
Water Pollution
Prevention Program

Santa Clara Valley
Urban Runoff Pollution
Prevention Program

Sonoma County
Water Agency

Vallejo Sanitation
and Flood
Control District

Regional Pollutants of Concern Report for FY 2012-2013

September 12, 2013

Bay Area

Stormwater Management

Agencies Association

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stage) Chinook salmon in salt water was induced at higher copper concentrations than in previous freshwater studies. The study concluded that existing regulatory thresholds for copper in San Francisco Bay are likely to be protective for salmonids. A final summary of the study results is available at http://www.sfei.org/sites/default/files/SeawaterEOG2012report12202012_final.pdf

In 2013 additional external funding was provided to the RMP for further evaluation of the copper olfactory effects at intermediate salinities. Due to the effect of federal budget cuts on study facilities, the additional tests will be conducted with coho salmon instead of Chinook salmon used in previous tests, resulting in extension of the project timeline into 2014.

- Ongoing exploration of the causes of moderate sediment toxicity in San Francisco Bay included an expert workshop in November 2012, the second in a series of discussions on stressor identification. Workshop participants identified a number of possible chemical and non-chemical stressors that could affect the laboratory organisms used for the toxicity tests (the amphipod *Eohaustorius estuarius*), and a follow-up proposal to test the effects of sediment particle size and shape was recommended for 2014 pilot/special studies funding

PBDES, LEGACY PESTICIDES, AND SELENIUM

C.14.a. Control Program for PBDEs, Legacy Pesticides, and Selenium.

This provision requires the Permittees to work with the other municipal stormwater management agencies in the Bay Region to identify, assess, and manage controllable sources of poly-brominated diphenyl ethers (PBDEs), legacy pesticides, and selenium found in urban runoff. Previous reporting for this provision focused on characterizing the representative distribution of these pollutants or pollutant groups in the urban landscape and in urban runoff. The reporting requirement for 2013 is to report on the results of the following MRP implementation objectives:

- Provide information to allow calculation of loads to San Francisco Bay of PBDEs, legacy pesticides, and selenium from urban runoff conveyance systems throughout the Bay.
- Identify control measures and/or management practices to eliminate or reduce discharges of PBDEs, legacy pesticides, or selenium conveyed by urban runoff conveyance systems.

Water Board staff recognized that these three pollutants or pollutant groups are distinct in terms of origin and transport, but grouped them into this provision because the requirements are identical. The original purpose of this provision was to gather concentration and loading information on pollutants of concern for which TMDLs were planned or in the early stages of development, and inform development of TMDL

implementation plans. However regulatory priorities have altered in response to newer information regarding trends of PBDEs and legacy pesticides; as described in Appendices 1 and 2, these POC groups are both declining in the biota of San Francisco Bay, and are unlikely to be causing impairment to beneficial uses. For selenium, the Regional Board is developing separate TMDLs to address 303(d) listing of the North and Central/South portions of San Francisco Bay.

The Permittees' compliance approach for the characterization and load calculation requirements of this provision is based on the Regional Watershed Spreadsheet Model (RWSM) developed for the Small Tributaries Loading Strategy, a collaboration between the RMP and BASMAA that uses a combination of monitoring and modeling to address questions listed in MRP Provision C.8.e concerning POC contributions from local watersheds to San Francisco Bay. The RWSM provides a framework and user interface that can be used as the basis for various pollutant-specific sub-models to estimate overall loads from local watersheds. Pollutant profiles containing the information needed to construct sub-models for load estimation of PBDEs and legacy pesticides are attached to Appendices 1 and 2, respectively. Preliminary recommendations for selenium sub-model development were included in the Year 2 progress report for the RWSM, included in the FY 2011-12 Regional POC Report as part of Appendix B4b.

To comply with Provisions C.14.a.v and C.14.a.vii BASMAA developed a regional project to prepare separate sub-reports describing control measures and /or management practices to eliminate or reduce discharges for each of the three pollutant categories (included in this Regional POC Report as Appendices 1, 2 and 3). Each report follows a similar format and includes the following information:

- A review of basic information on the pollutant or pollutant group, including chemical qualities, known adverse effect concentrations and applicable water quality objectives.
- A summary of uses, sources and pathways based on available information. Where possible this relies on POC fact sheets and Conceptual Model reports developed for the Bay Area by the RMP and other regional initiatives.
- An overview of the status of water quality regulations and policies associated with the POC, including Bay Area 303(d) listing basis and TMDL schedule where applicable.
- A summary of the MRP requirements in Provision C.14.
- A summary of characterization information for the pollutant or pollutant group, integrating available data sources including some that were provided in previous reporting for Provision C.14.a.
- A description of control measures that may be applicable to reducing loads for the pollutant or pollutant group, whether implemented in current or previous permit periods, or planned by MRP Permittees and other related agencies. For some POCs applicable control measures can include those that are being pilot tested or implemented for PCBs and/or mercury. Potential enhancements to

existing or planned control measures are discussed where there is a strong likelihood of improvement to water quality in return for reasonable effort.

These sub-reports identify many existing control measures that are serving to reduce loads of these POCs to San Francisco Bay, both through MRP provisions and also the construction and industrial general stormwater permits. Pilot or focused implementation of additional management measures aimed at reducing PCBs and mercury will also help reduce a wide range of other POCs, particularly those associated with sediment including PBDEs and Legacy Pesticides. Considering the regulatory status of PBDEs, legacy pesticides, and selenium the existing control programs described in the subreports provide sufficient reductions of these POCs in urban runoff.