

TOPIC: Proactive Water Resource Monitoring

Title: Monitoring Bioaccumulation in California's Changing Landscapes: A 50 Year Vision

Consumption advisories due to contaminants like mercury and PCBs have been issued for hundreds of water bodies across California. Mercury is the most severe and widespread problem, one that traces back to the massive historical landscape change triggered by the Gold Rush. Mercury, PCBs, and a long list of other emerging contaminants is monitored across the state by the State Water Board's Surface Water Monitoring Program (SWAMP) and other programs to track trends and to assess whether any additional contaminants are rising to a level of significant concern. Rising temperatures; increased fires, droughts, and floods; urbanization and urban greening; changes in agriculture; and other landscape changes in the next 50 years and beyond will all have an impact on bioaccumulation in California water bodies. This presentation will outline the elements of the bioaccumulation monitoring that will be needed to track progress in addressing existing problems and to prevent the creation of new ones.

Presenter: Jay Davis, San Francisco Estuary Institute

Dr. Davis grew up near the PCB-contaminated aquatic food web of Lake Michigan. He has worked on contaminant issues in San Francisco Bay since 1986. He received his Ph.D. in Ecology at the University of California, Davis in 1997. Dr. Davis is Lead Scientist of the Regional Monitoring Program for Water Quality in San Francisco Bay, a comprehensive water quality monitoring program. He is also lead scientist for the Bioaccumulation element of the California State Water Resource Control Board's Surface Water Ambient Monitoring Program, which conducts statewide surveys of contaminants in aquatic food webs. Dr. Davis is also the co-Director of SFEI's Clean Water Program. His primary research interest is monitoring the accumulation of persistent contaminants in aquatic food webs of the Bay, its watershed, and aquatic ecosystems in California.