

2014 Annual Members' Meeting Regulatory Update



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BACWA's Ongoing Regulatory Issues (in addition to Nutrients)

- State Toxicity Plan Amendment
- Mercury/PCBs Watershed Permit
- North Bay Selenium TMDL
- Compounds of Emerging Concern
- Other Regulatory Issues



Toxicity Plan Amendment

- Engagement with State Water Board
- Regional Implementation

BACWA continues to engage in the State's Toxicity Plan

- Two major changes from how toxicity testing is currently conducted:
 - Use of the TST to monitor toxicity
 - Numeric effluent limits for chronic toxicity
- Development of the toxicity plan has been ongoing for several years and successive drafts have improved the more the POTW community engages with the State Water Board. Next draft expected in the Spring (2014?)
- Latest move from the State Water Board is Fact Sheet as part of “soft rollout” of next draft – BACWA submitted comments

Issues to discuss with the State Water Board

- Numeric Limits – The State doesn't get any benefit by assessing violations before agencies can respond to exceedences
 - May see removal of the MDEL
 - State Board Members want to keep the MMEL
- Reasonable Potential Analysis (RPA) – Current RP threshold is arbitrary and less than the test's "limit of detection".
- Monitoring Frequency – BACWA has proposed reduced monitoring for agencies with consistent toxicity testing records
- Instream Waste Concentration and Acute Toxicity – Regional Boards will likely continue to have discretion. BACWA is supporting language to encourage true dilution and drop acute toxicity.

Discussions with Regional Board on IWC and Acute toxicity Implementation

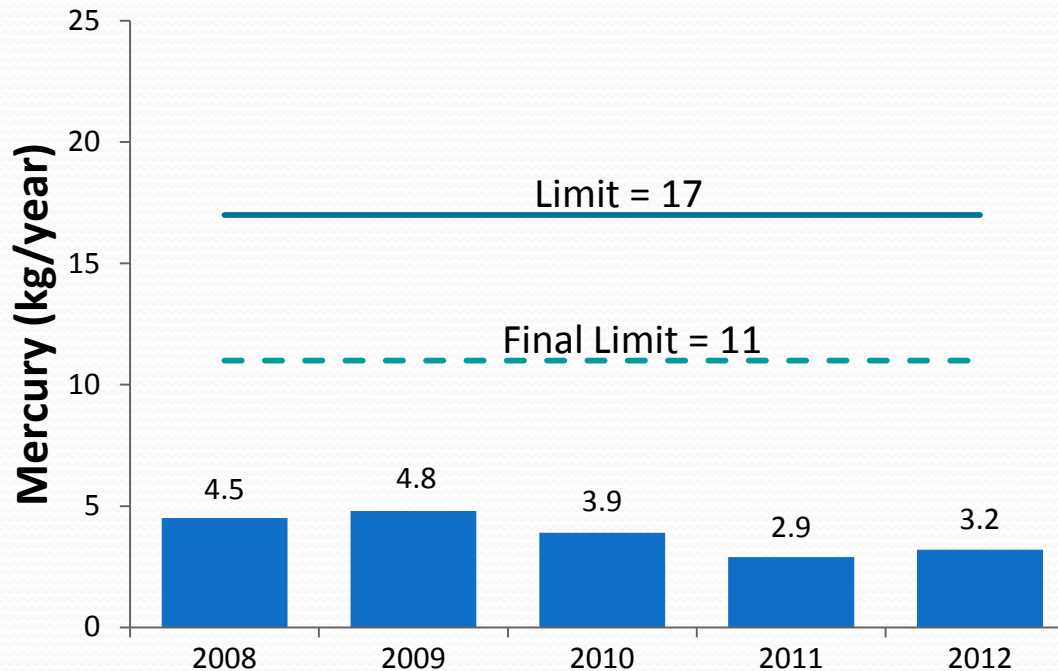
- Instream Waste Concentration (IWC) – Tentative Agreement:
 - For deep water dischargers, their dilution credit for chronic toxicity will be 80% of true dilution as measured by a dilution study. The minimum dilution will be 10:1.
 - For shallow water dischargers, dilution credit will be granted on a case-by-case basis.
- Acute Toxicity – Favor dropping requirements, assuming that is allowed but the Toxicity Plan. BACWA submitted a memo outlining Region 2's testing history to support dropping acute toxicity.

Mercury/PCBs Watershed Permit

- Compliance
- PCBs data quality
- Risk reduction

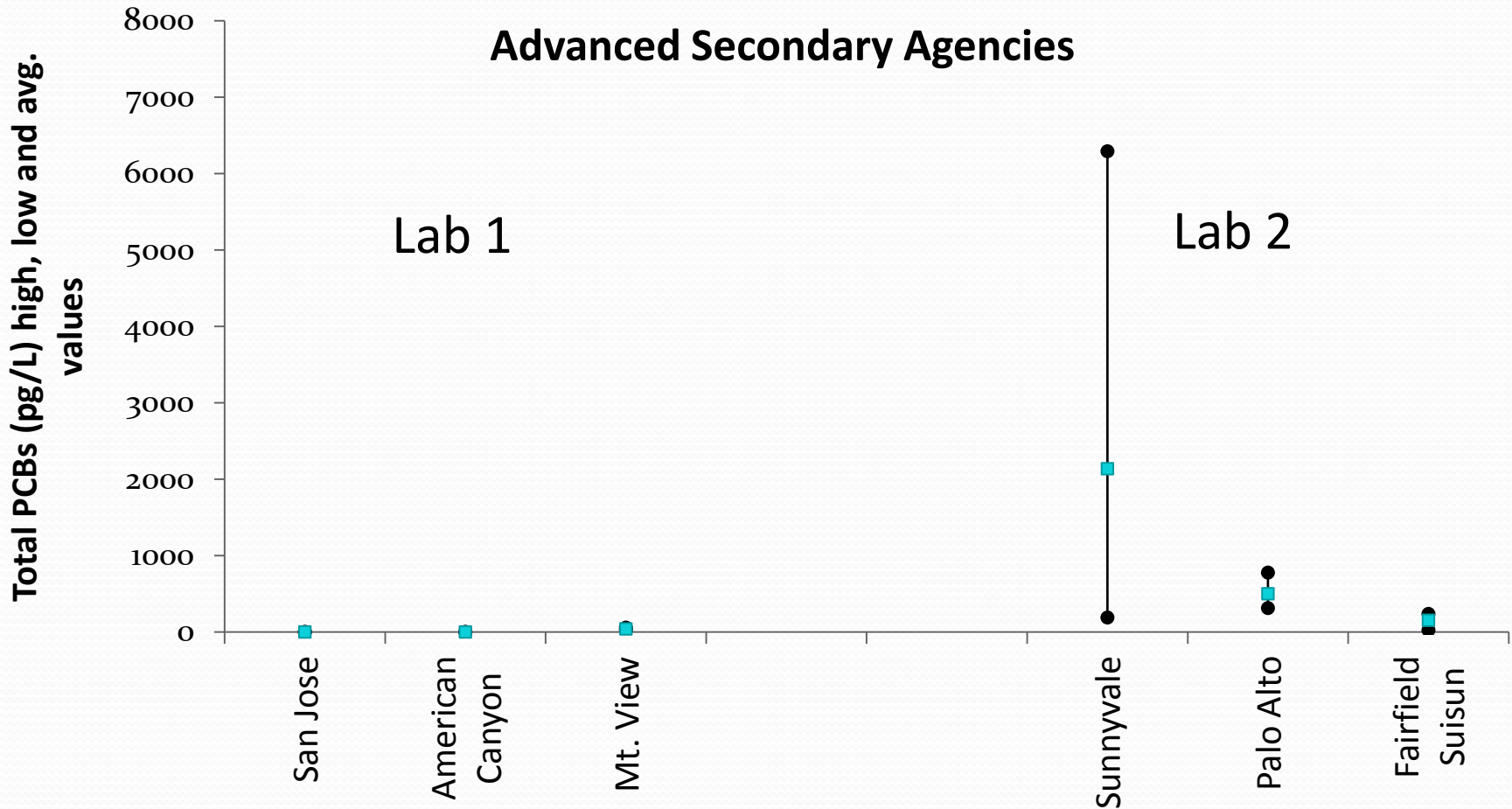
Aggregate loads are well beneath TMDLs (2012)

Municipal Wastewater Dischargers



2012 aggregate PCB load was 1.2 kg, compared to allocation of 2kg.

BACWA agencies previously had trouble with lab consistency in PCBs reporting



The updated, more robust protocols will address these issues

Item	2010	2013
Replicates	Recommended	Not recommended
Target Analytes	209	40
Qualifiers	19	7
Detection Limit	MDL	SSDL
Process Control	No reporting limit of method blank tracking	Track method blank TL ¹ over least 10 batches
Method Blank (MB) Criteria	Sum in MB < sum of method ML	<i>For any congener:</i> conc in MB < 20 pg/L
		TL < 75% method ML
¹ Threshold Limit (TL) = $\text{Average}_{\text{MB},10} + 2 * \text{Std Dev}_{\text{MB},10}$		

Risk Reduction – Where to next?

- Requirement to “participate” in risk reduction activities is in Hg/PCB watershed permit
- Last permit was \$100K BACWA effort which funded signage, brochures, community group educational projects – run by DPH which does not have the staffing to continue in new permit term



FISH SMART in San Francisco Bay

Harmful chemicals like mercury and PCBs are in some fish in San Francisco Bay. **Women 18 - 45 years old and children should *only* eat the fish with less chemicals in them.**

有害化学物质诸如汞，多氯联苯等存在于三藩市海的某些鱼体内。妇女**18 - 45岁**和儿童应当只吃化学物质含量少的鱼。

Algunos tipos de pescado de la Bahía de San Francisco contienen químicos dañinos como mercurio y PCBs. **Las mujeres de 18 a 45 años y los niños solo deben comer el pescado que contiene menos químicos.**

Learn more: www.sfbayfish.org • (510) 622-3170

EAT THIS Less Chemicals	NOT THIS More Chemicals
 Jacksmelt	 Striped Bass (Safe to eat for women over 45 and men)
 Brown rockfish	 Surfperches
 Red rock crab	 Sharks
 California halibut	 White croaker (Kingfish)
 Chinook (king) salmon	 White sturgeon

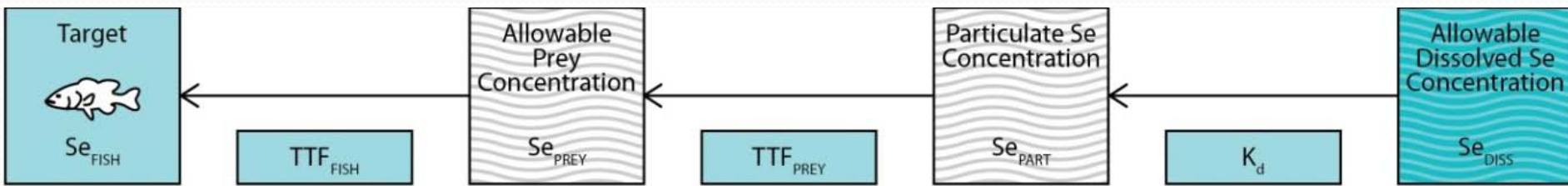
Risk Reduction – Opportunities to work with the Delta Effort

- Central Valley Regional Water Board is working with local stakeholders on a risk reduction effort for methyl mercury in the delta (Delta MERP)
- BACWA is looking for opportunities to leverage the resources of the Delta MERP- for example, we may contribute to the salary of a health educator who will split efforts between the San Francisco Bay Area and the Delta
- BACWA will continue to look for opportunities to shift the responsibility and management of risk reduction efforts to the State level.

North Bay Selenium TMDL

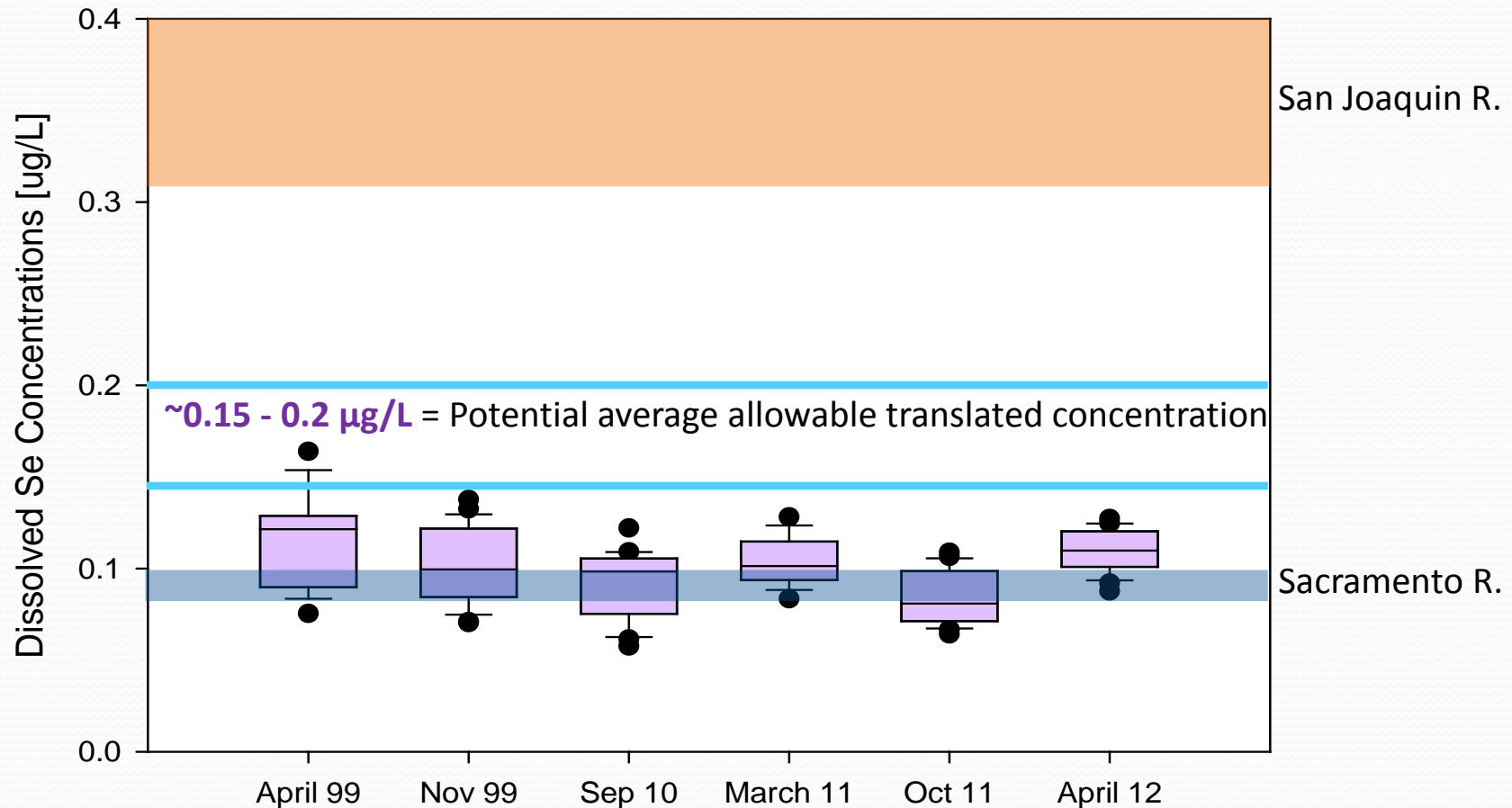
- Development of Objectives
- Implementation Strategy

Regional Water Board is working to translate fish tissue objectives to target dissolved concentrations



Predator	Food Web	Tissue Target ($\mu\text{g/g dw}$)	TTF_{FISH}	Sturgeon Diet	TTF_{PREY}	K_d	Season
Sturgeon	clam-based	8 $\mu\text{g/g}$	1.3	50% <i>C. amurensis</i> 50% [amphipods & other crustaceans]	9.2	3500-10000	low flow/high flow

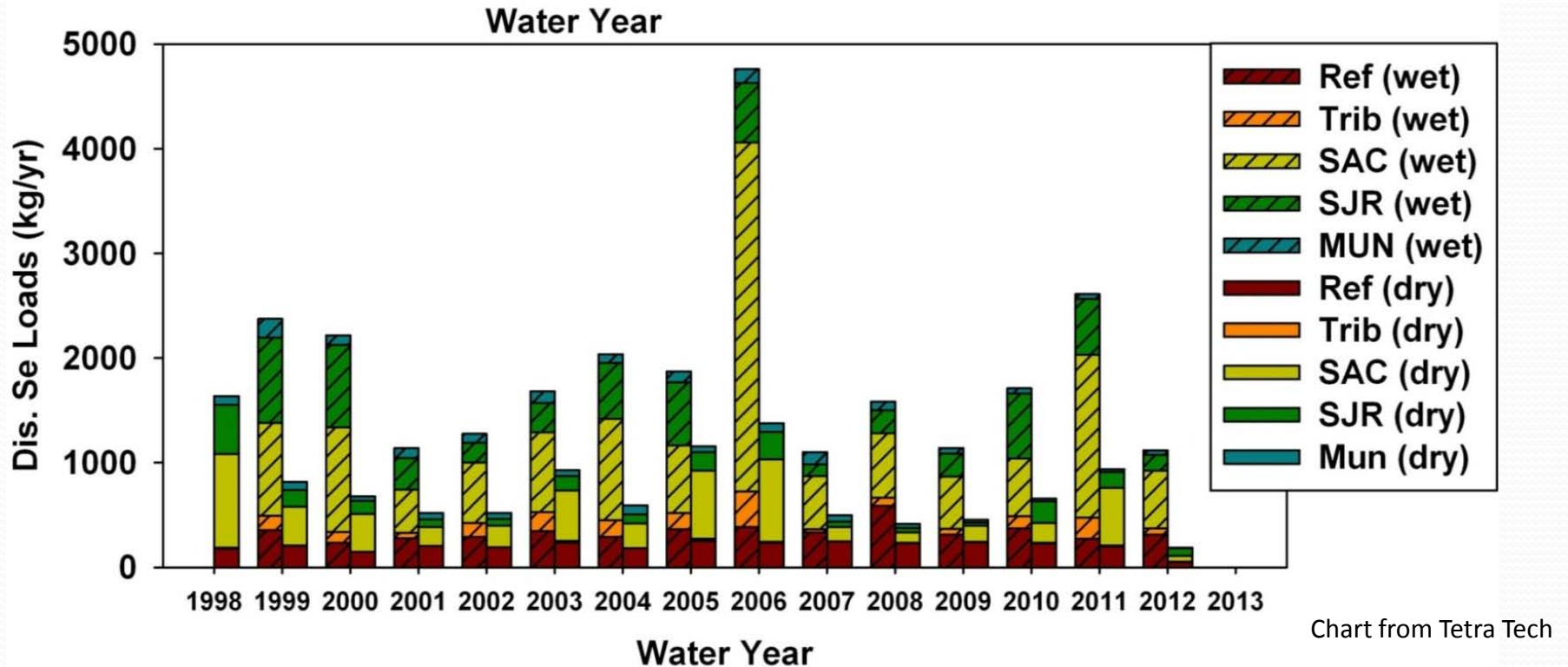
Target water concentration may be above concentrations measured in North Bay...



.... but below concentrations measured at some POTWs

Selenium TMDL - POTW (Mun)

loads are a tiny fraction of the total




This is dissolved loads – the fraction of particulate loads from POTWs are too low to be counted. Total particulate loads are approx. 10% of total dissolved loads.

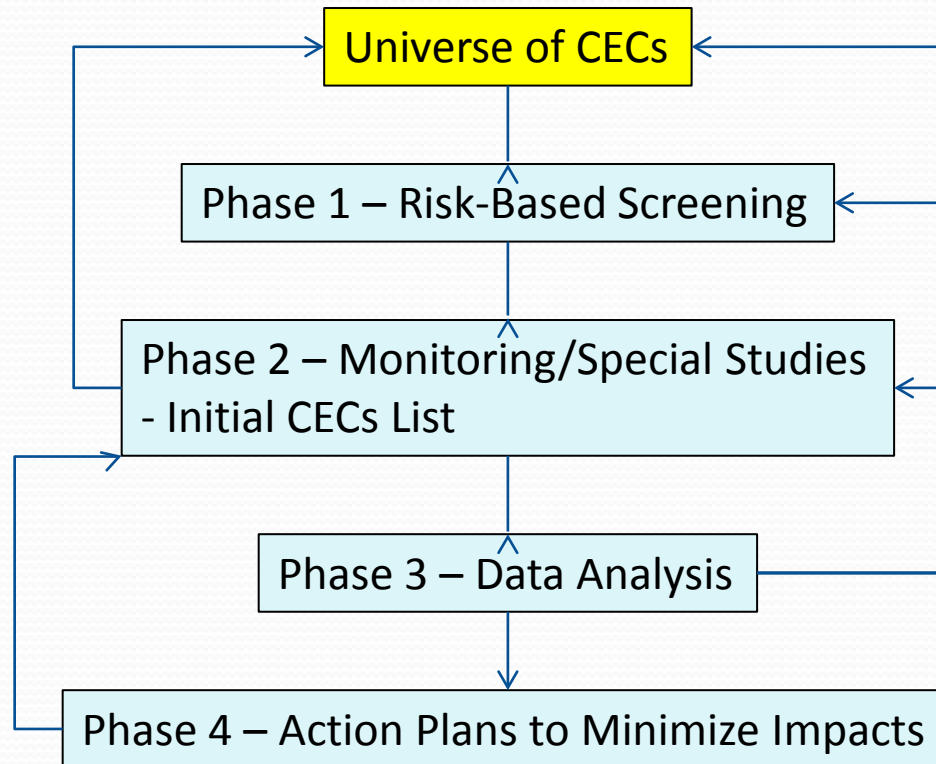
Compounds of Emerging Concern (CEC)

- Regional Strategy
- State Strategy

Our region has developed a risk-based management strategy through the RMP

Tier Assignments		CECs	Monitoring and Management
Tier IV <i>High Concern</i>	<i>High Probability of a Moderate or High Impact on Water Quality</i>	<i>No CECs currently in this tier</i>	
Tier III <i>Moderate Concern</i>	<i>High Probability of a Low Impact on Water Quality</i>	PFOS PBDEs Fipronil Nonylphenol and nonylphenol ethoxylates	
Tier II <i>Low Concern</i>	High Probability of No Impact on Water Quality	PBDEs Pyrethroids Pharmaceuticals and personal care products PBDDs and PBDFs	
Tier I <i>Possible Concern</i>	Impact of Water Quality Unclear	Alternative flame retardants Fluorinated Chemicals Pesticides Plasticizers Nanomaterials Many, many others	

Proposed State Framework for Monitoring and Managing CECs



- Stakeholder engagement: Phil Friess (LACSD) is POTW rep, and Tom Mumley is Water Board rep
- Updates through CASA Regulatory Workgroup (formerly Tri-TAC)

State Framework proposes monitoring of surface waters and dischargers

- Four discharge categories
 - WWTPs discharging to Ocean
 - WWTPs discharging to Coastal Embayment
 - WWTPs discharging to Inland Freshwater
 - Stormwater Receiving Water Stations
- RMP has historically monitored mostly surface water with occasional effluent monitoring from a few volunteers. They are looking to increase their pool of volunteers – please contact Karin North:
karin.north@cityofpaloalto.org

Additional Regulatory Issues

Updated in Regulatory issues matrix – posted on BACWA website



KEY REGULATORY ISSUE SUMMARY Updated JANUARY 29, 2014

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Selenium – EPA Criteria and TMDLs	2
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Action items for member agencies are in **bold**

Background Highlights	Challenges and Recent Updates	Next Steps for BACWA	Links/Resources
PERMITS COMMITTEE			
NUTRIENTS IN SAN FRANCISCO BAY - REGULATORY			
<ul style="list-style-type: none"> The SF Bay Nutrient Strategy is part of a statewide initiative, supported by the U.S. EPA Region IX and the State Water Board, to establish water quality standards to prevent or mitigate nutrient impairment. Water contractors and Baykeeper have been encouraging regulators to tighten nutrient limits in Bay Area permits as they are renewed. Because of the complexity of the science behind nutrient impacts in the SF Bay, stakeholders in the region are embarking on a 	<ul style="list-style-type: none"> BACWA is working with the Regional Water Board on developing a Nutrient Watershed permit. Adoption is targeted for April 2014, with an effective date of July 1, 2014. BACWA representatives from each subembayments and the Regional Water Board have been meeting regularly since Fall 2013 to negotiate the details of this permit. Elements of the watershed permit are: <ol style="list-style-type: none"> Continued monitoring of nutrients in effluent and receiving water. Robust reporting and tracking of 	<ul style="list-style-type: none"> BACWA has provided comments on the Administrative Draft and will continue to work with the Regional Water Board. BACWA hosted a Nutrient Technology Symposium for its members in October 2013, and is considering topics for future nutrient symposia. 	<p>SF Bay Regional Water Board NNE page: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendments/estuaryne.shtml</p> <p>BACWA Nutrient page: http://bacwa.org/nutrients</p> <p>Presentations from 10/14 BACWA Nutrient</p>

Questions?

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