

The State of San Francisco Bay: Water Quality

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Conference

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Goals of This Talk

- Brief introduction to the Regional Monitoring Program
- Overview of water quality in the Bay
- Present a new way of summarizing water quality information

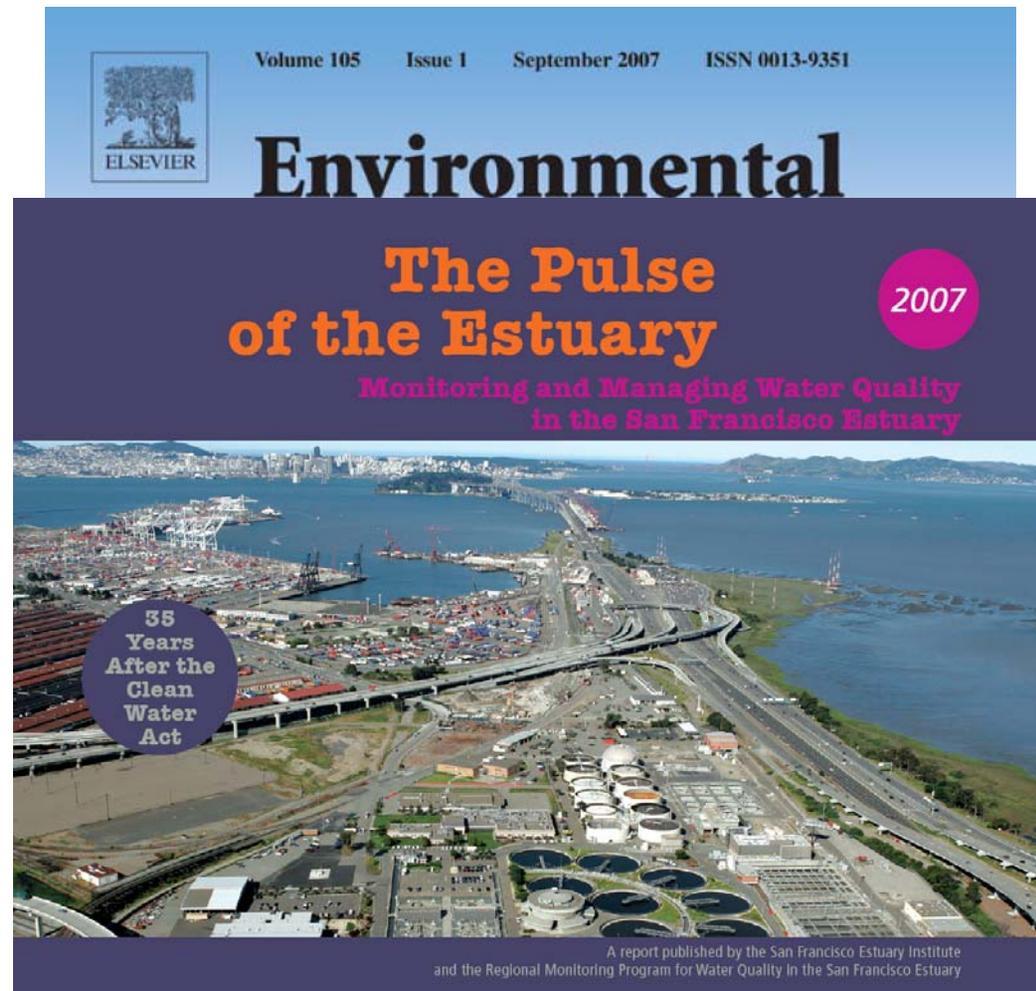


Regional Monitoring Program (RMP)

- Mature program - began in 1993
- \$3 million/year of stable funding
- Multi-faceted
- Continually adapting in response to information needs of managers

RMP Information Products

- Annual reports
- Technical reports
- Web site with access to raw data:
www.sfei.org/rmp
- Journal publications
- Annual meeting

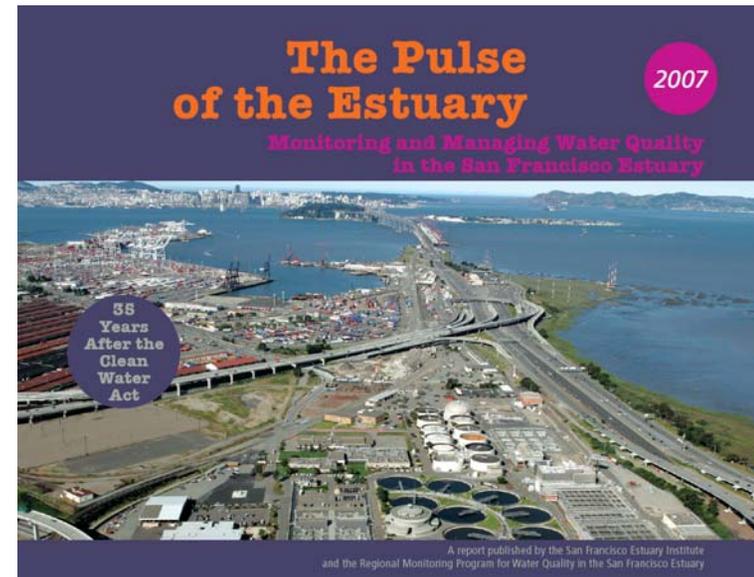


“How is the Bay doing?”

- Need for a simple summary
- Does justice to the wealth of available information
- Not too simple

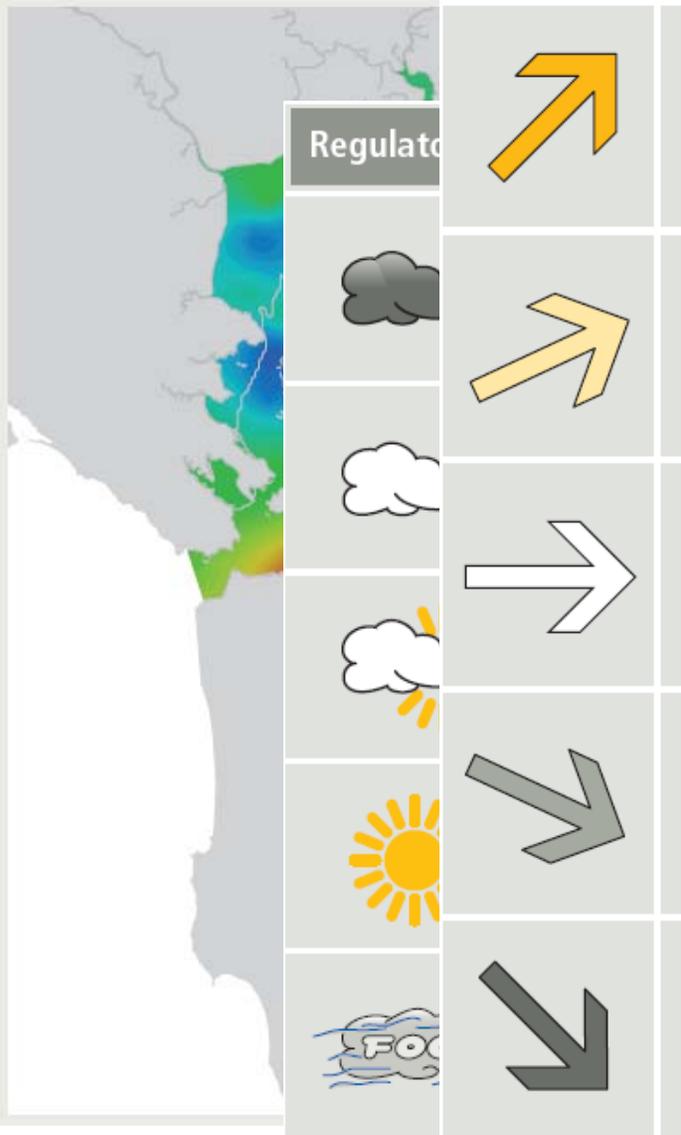
The Pulse Water Quality Summary

- Tailored to RMP
- Consistent with 303(d) List
- By pollutant
- Flexible
- Highlights information gaps
- Includes forecast
- Not overly boiled down



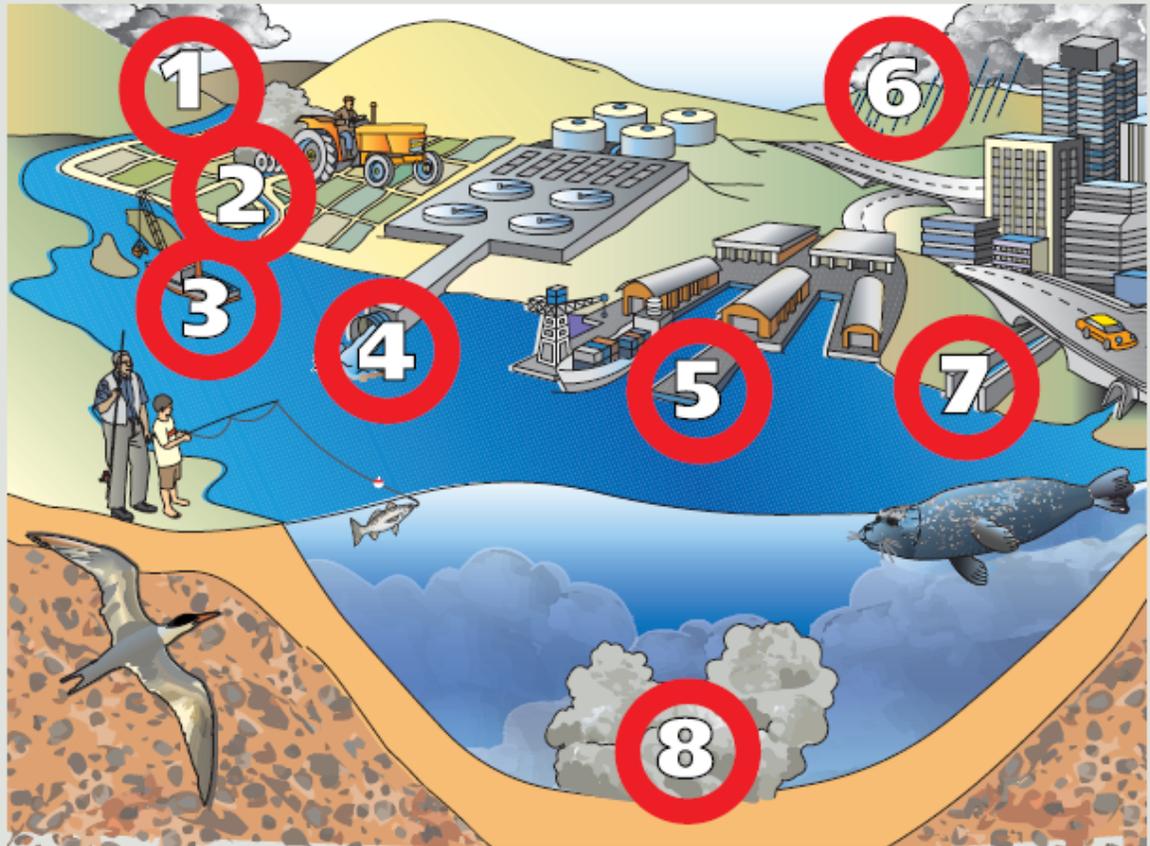
A Pictorial

Recovery Trajectory

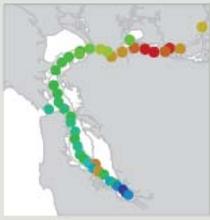
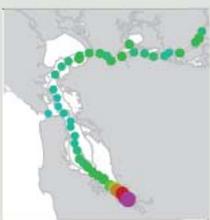
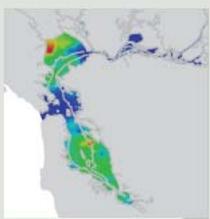


Largest Pathways

- 1 Delta outflow
- 2 nonurban runoff
- 3 dredging and dredged material disposal
- 4 wastewater effluent
- 5 in-Bay contaminated sites
- 6 atmospheric deposition
- 7 urban runoff
- 8 remobilization from sediment



Problems Solved

	Status	Health Risks	Pathways	Spatial Pattern	Trend	Forecast
Organic Waste		Effects not likely				
Nutrients		Effects not likely				
Silver		Effects not likely				

The Biggest Problems

Status

Health Risks

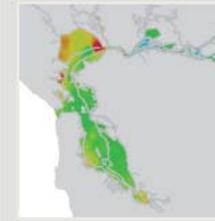
Pathways

Spatial Pattern

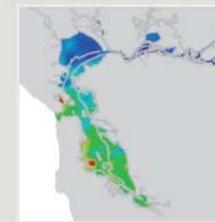
Trend

Forecast

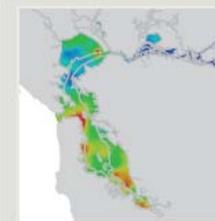
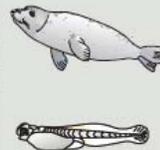
Total Mercury



Methyl-mercury



PCBs



The Biggest Problems

Status

Health Risks

Pathways

Spatial Pattern

Trend

Forecast

Dioxins

					
	<p>Major impacts on virtually all types of invertebrates and some fish; possible impacts on some birds. So far only minor human health problems.</p>	<p>Ship ballast water Ship and boat hull fouling Bait imports and transfers</p>	<p>Except near the mouth of the Bay, common and dominant on hard and soft substrates and common in the water column.</p>		

Exotic Species

Other Threats

Status

Health Risks

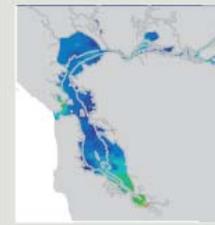
Pathways

Spatial Pattern

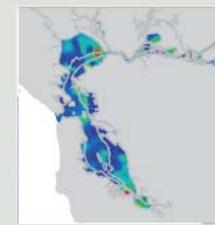
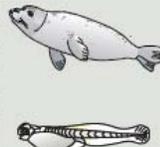
Trend

Forecast

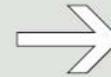
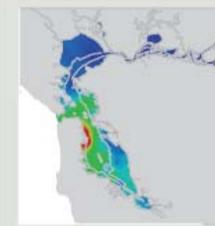
Selenium



Legacy Pesticides



PAHs



Below Thresholds...

Status

Health Risks

Pathways

Spatial Pattern

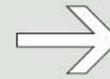
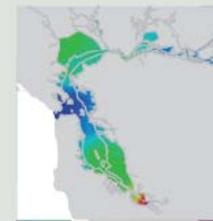
Trend

Forecast

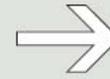
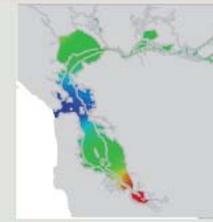
Nickel



Effects not likely



Copper



Rising Concerns

Status

Health Risks

Pathways

Spatial Pattern

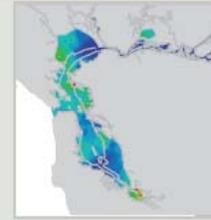
Trend

Forecast

PBDEs



PENDING



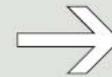
Pyre-throids



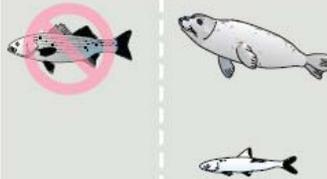
insufficient data



Sediment Toxicity



Mixtures



**Reports and information
available at:**

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