

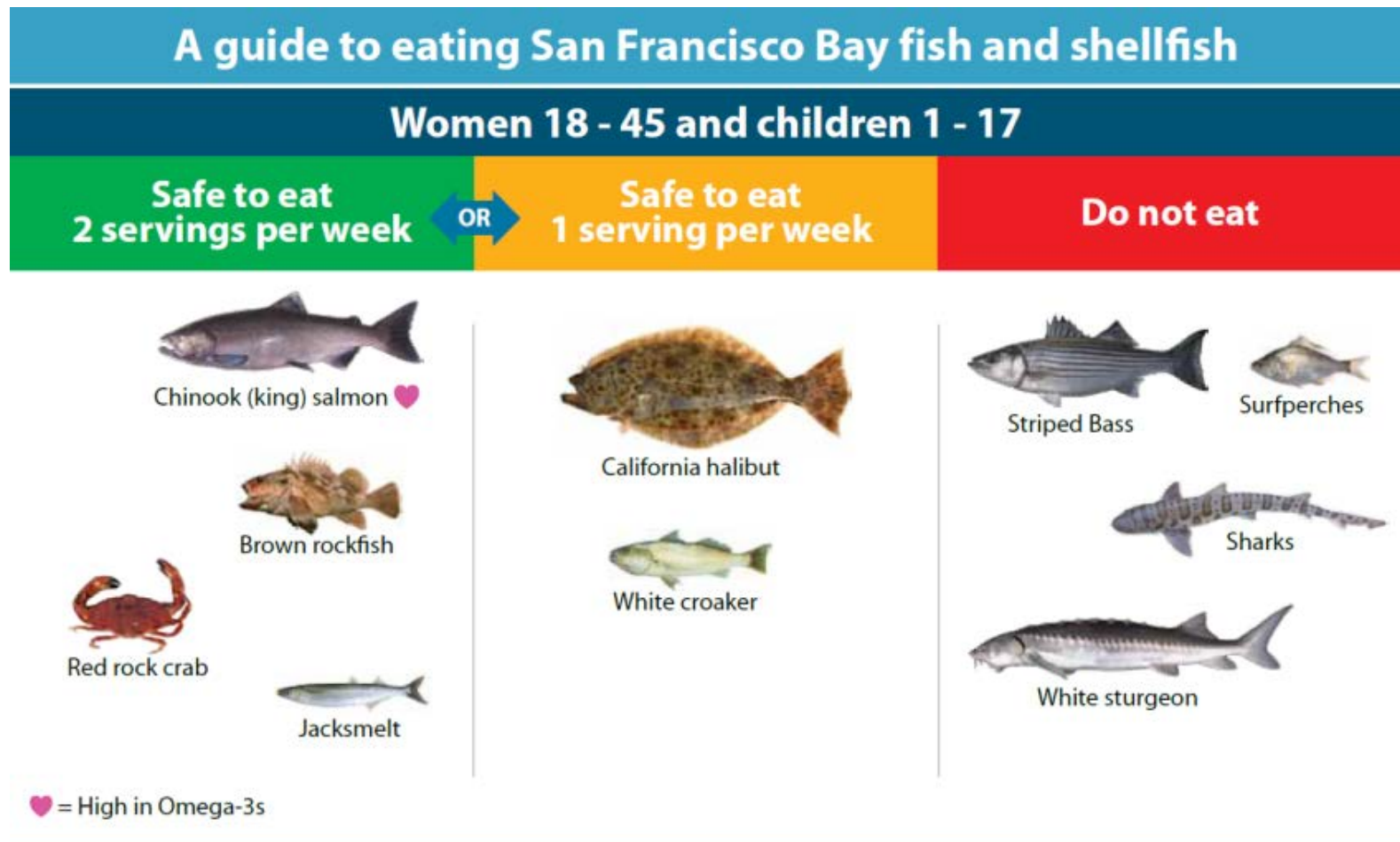
STORMWATER CONTROLS FOR PCBs AND MERCURY

Fabry/Konnan

**STORMWATER COMMITTEE
November 21, 2013**

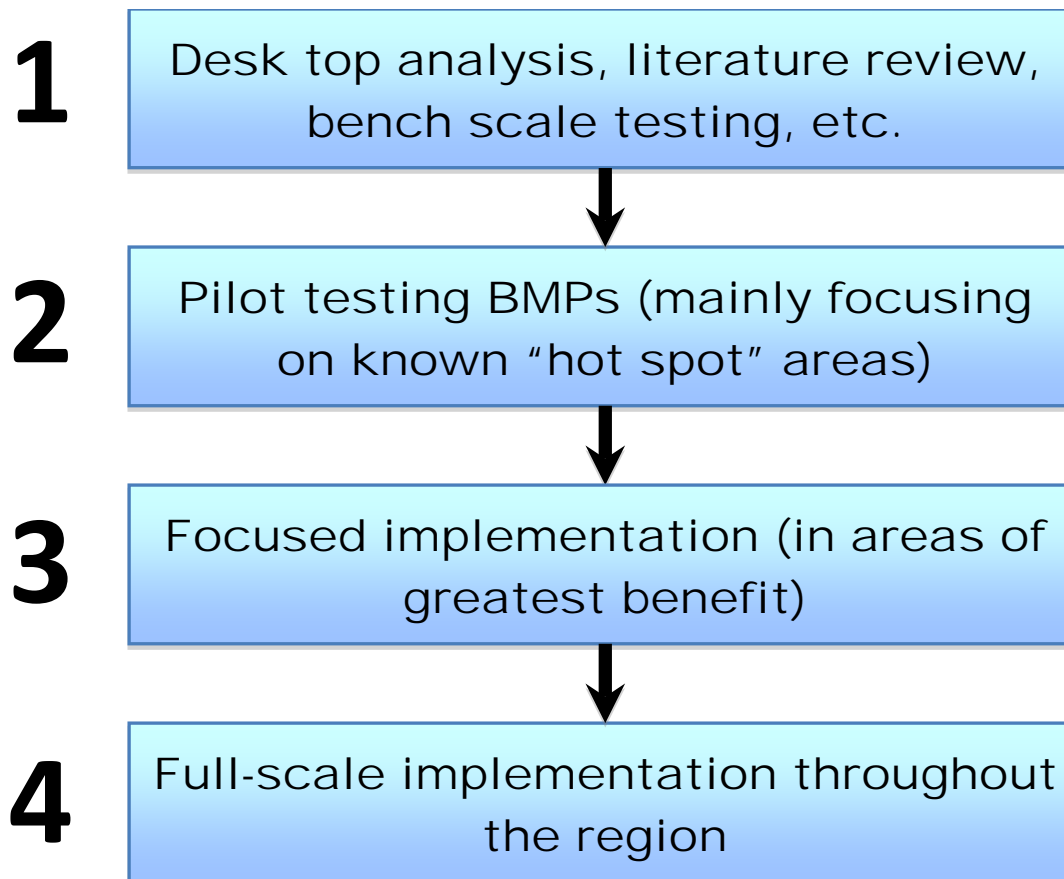
PCBs/Mercury Problem Statement

Driver: Fish Consumption Advisories and TMDL Load Allocations



TMDL Implementation

Phased approach with goal of attaining PCB & Hg TMDL allocations within 20 years:



For now assuming PCB actions are sufficient to address mercury but will need to revisit this.

TMDL Update

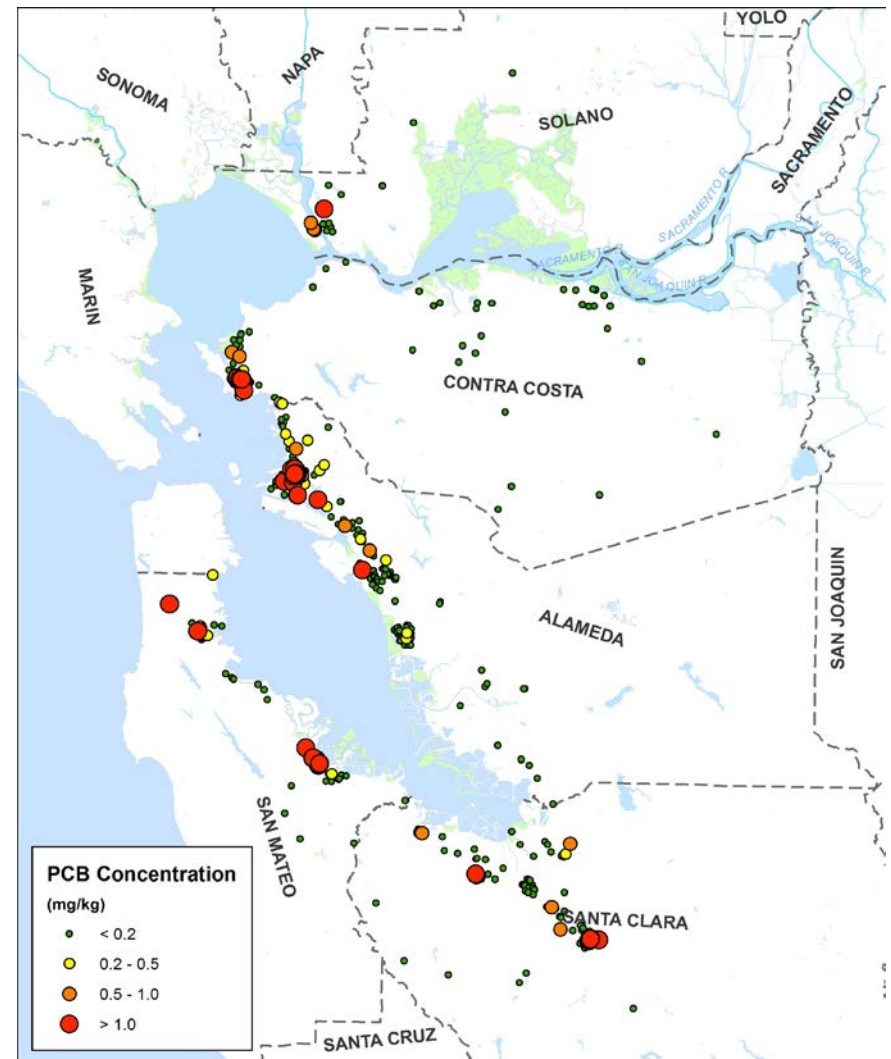
- PCB TMDL approved by EPA March 2010, 20-year clock.
- 10-year check-in around 2020, near end of MRP 2.0 term.
- Currently TMDL based on very simple models, recent evidence indicates oversimplification. **Improve models.**
- More time may be granted if demonstrated that “all technically and economically feasible and cost-effective control measures have been fully implemented and....achievement of the allocation will require more than the remaining 10 years.” **Planning begets time.**

Sediment Surveys



Where do we find high PCB concentrations in sediments?

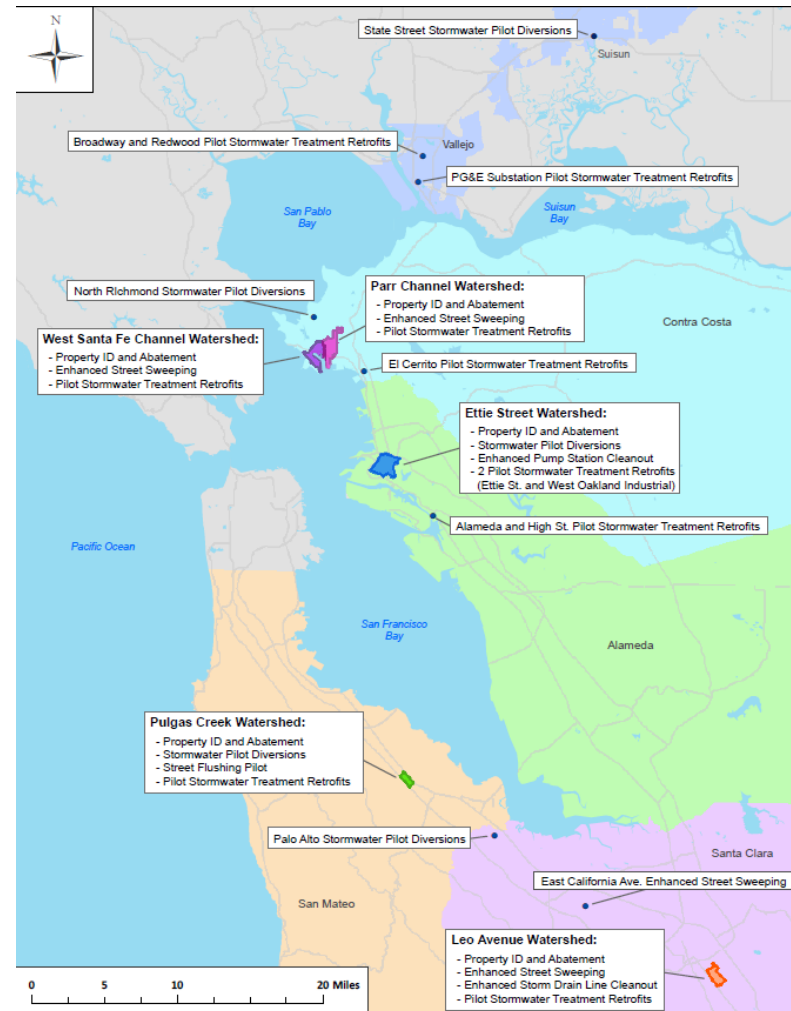
- Highest closest to where PCBs were presumably used
 - Variable – suggests some “low hanging fruit”
 - Vehicle, wind dispersion
 - Typically highest in “old industrial” land uses
 - Often close to Bay margins



MRP 1.0 Lessons

Pilot Projects

- Source area investigations
- Enhanced street sweeping
- Street washing and pipe flushing
- Treatment retrofits
 - Bioretention / bioswales
 - Hydrodynamic separators
 - Tree wells
- Diversions to POTWs
- PCBs in building materials



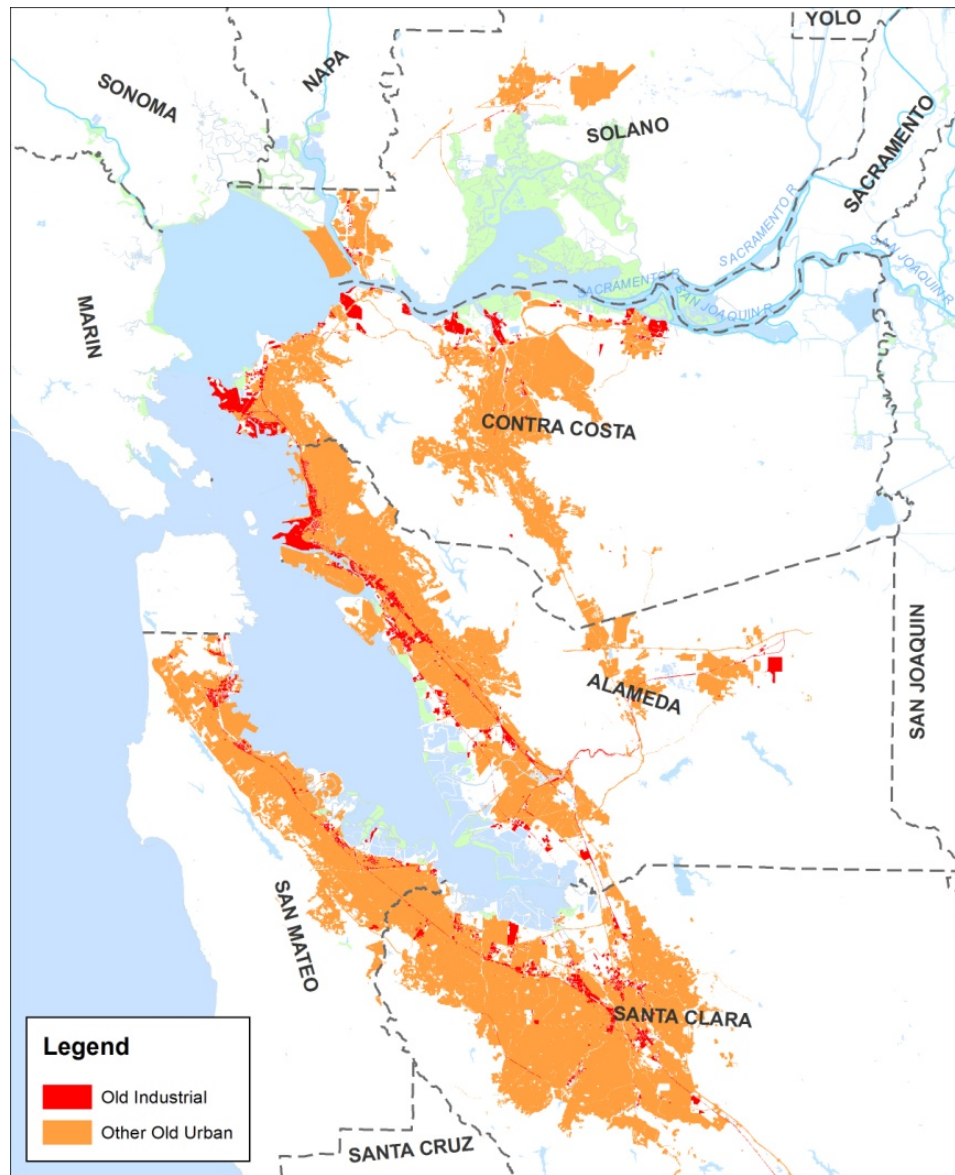
MRP 1.0 Lessons

PCB Load Estimates

PCB yields developed based upon relating monitoring data to land use and extrapolating across MRP footprint.

Land Use Yield (mg/ac/yr)				
Old Industrial	Old Urban	New Urban	Open Space	Other
50	17.5	2	2.5	2

Old Industrial and Old Urban

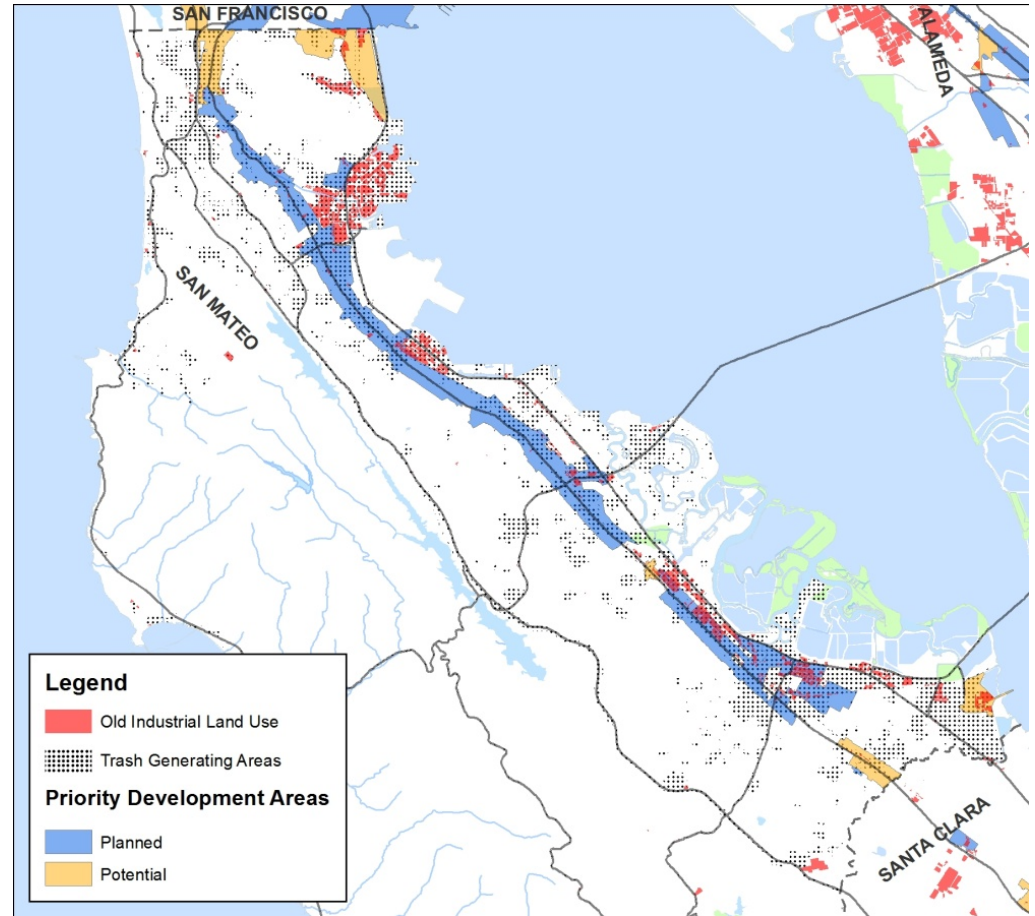


MRP 2.0 - Proposed PCB Framework

	Land Use or Drainage Category		
	High Opportunity	Old Industrial	Old Urban
Estimated Acres	~ 3,100	~20,000	~300,000
Estimated PCB Load	~ 10%	~15%	~60%
Current knowledge	High	Moderate	Varies
Working assumptions regarding PCB yield (per unit area)	Relatively high.	Variable, moderate as overall average.	Variable, low as overall average (but total load significant due to large area).
Certainty: are available data enough to support focused implementation?	Yes, adequate certainty to plan application of PCB tools.	Limited; need to sort this into either “High Opportunity” or “Old Urban” i.e., delineate new management areas.	No, but perform long-term watershed master planning to take advantage of opportunities for multiple drivers/benefits and funding (e.g., trash controls, green streets, transportation projects and other infrastructure improvements.)

Multiple Drivers/Benefits/Funding

- **Coordination with other drivers**
- **Overlap among**
 - Old industrial
 - Priority development
 - Trash generation



San Carlos Example

Place holder for up to 6 slides:

1. City of San Carlos boundary and roadways or such
2. Old urban and old industrial
3. Pilot watershed (Pulgas)
4. Trash management areas (also, a separate slide showing just trash generation and management areas)
5. Priority Development Areas

Next Steps

- **PCB work group clarifies information needs**
 - Where, what, and at what cost: need this information to inform MRP 2.0.
 - More information, less pain.
 - What will we gather and what is the process?
- **Programs work with Permittees**
 - Information gathering process with similarities to trash. Jurisdictions commit staff resources?
- **Updating funding initiative future cost estimates: now or wait until we know more about MRP 2.0?**

Questions?



THE STRIPED BASS.