

# PCBs in Urban Watersheds

Jon Konnan

EOA, Inc./  
BASMAA PCBs  
Representative

# Topics

- BASMAA agency sediment surveys.
- BASMAA agency follow-up "case studies."
- Ettie Street project.
- Future challenges.

# Survey Methods

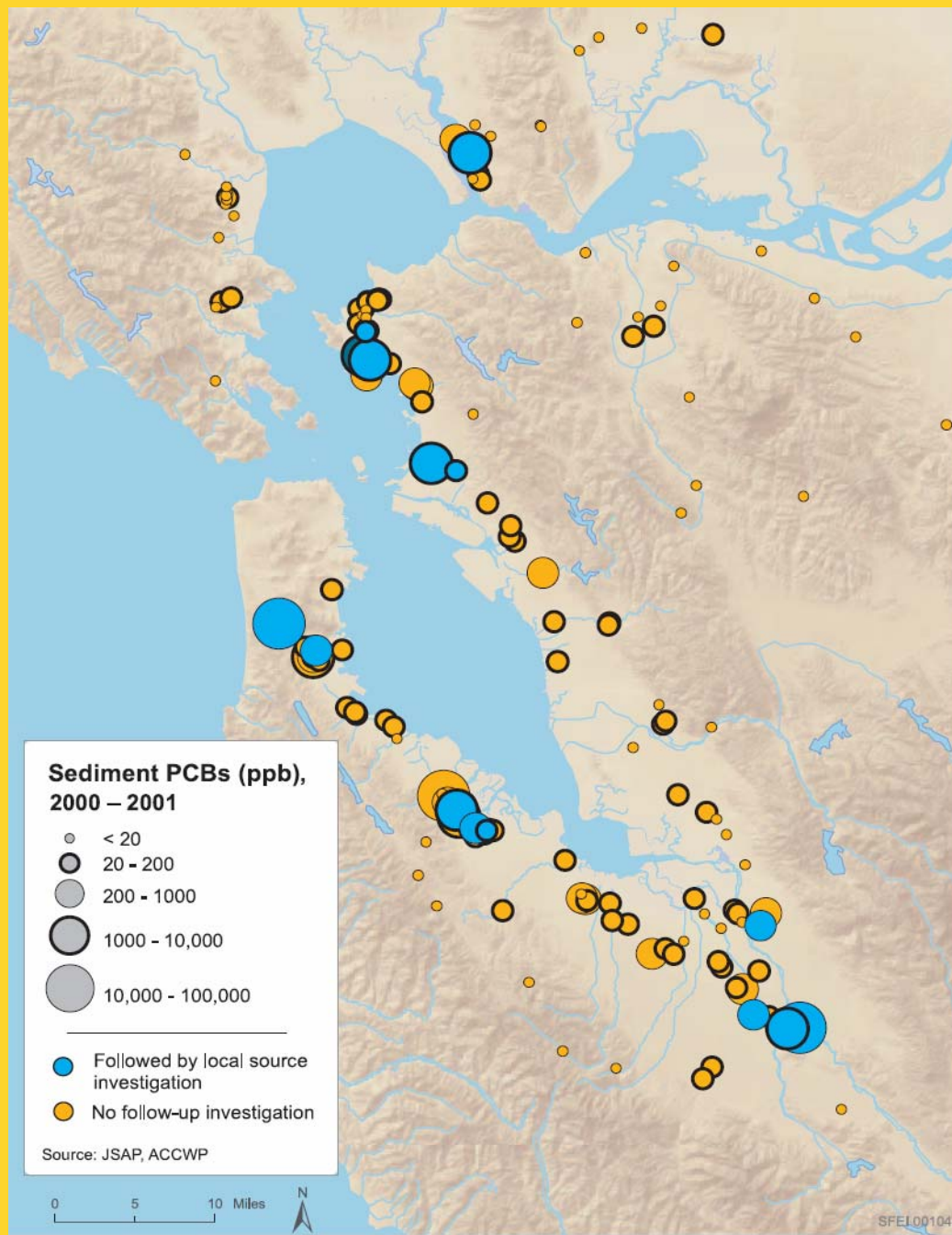
- About 130 sediment samples collected fall 2000 and 2001.
- Urban and open space land uses.
- Catch basins, manholes, pump stations, flood control channels.
- Analyzed for PCB congeners (similar list to RMP) and other pollutants.



# PCB Analysis Results

- Stormwater sediments > Bay sediments.
- Urban sediments > open space sediments.
- Urban samples very variable - some samples were relatively elevated.





# Hypothetical PCB Sources

Diffuse sources = uniform distribution

Discrete sources = elevated samples

**Opportunity**



# PCB Case Studies

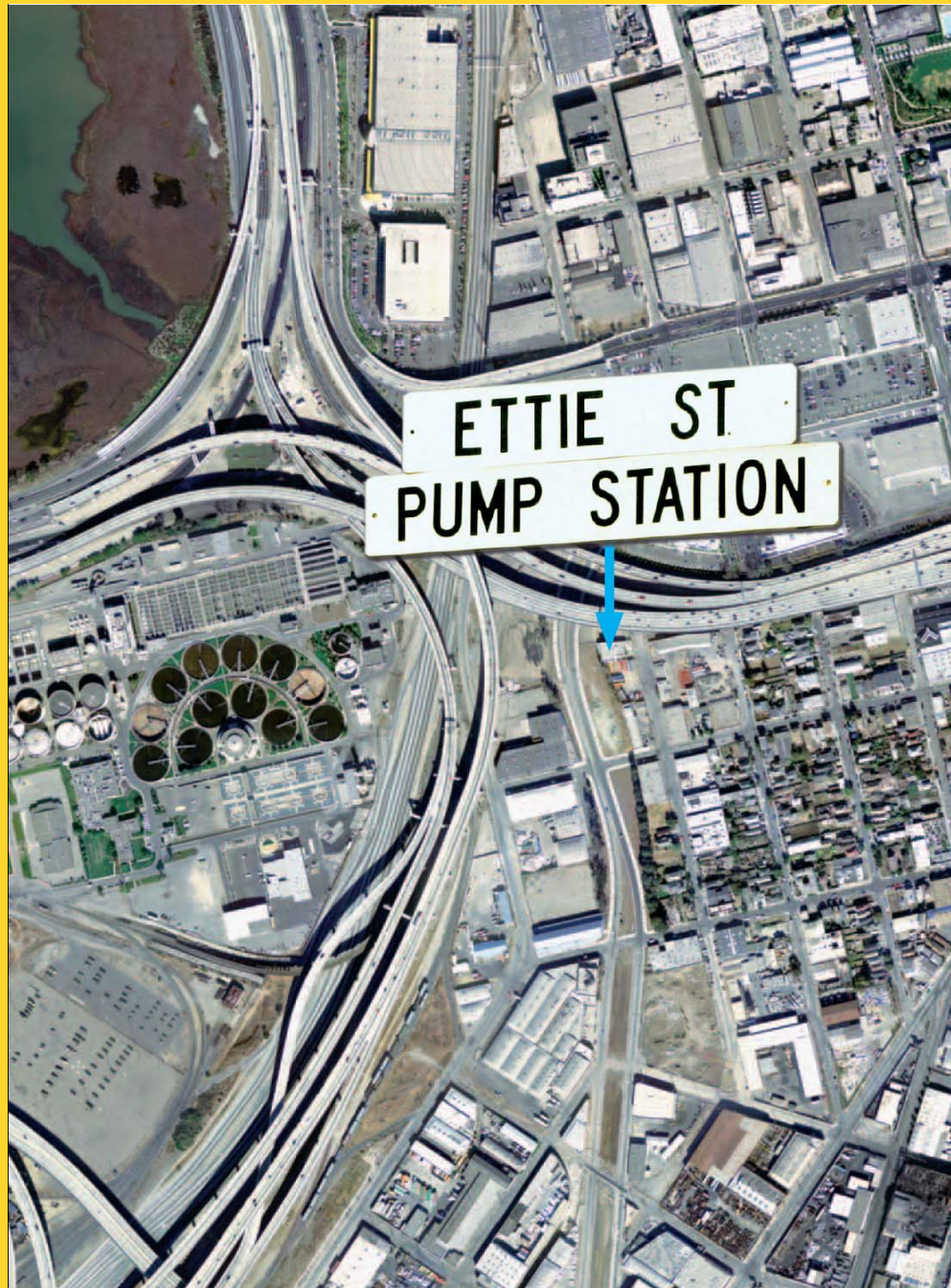
- Mapped drainage area.
- Researched historical land use and known PCB sites in drainage.
- Collected additional sediment samples.
- Success varied - some potential source areas and responsible parties identified.



# Top Ten PCBs Sites

(Based on concentrations normalized to fines)

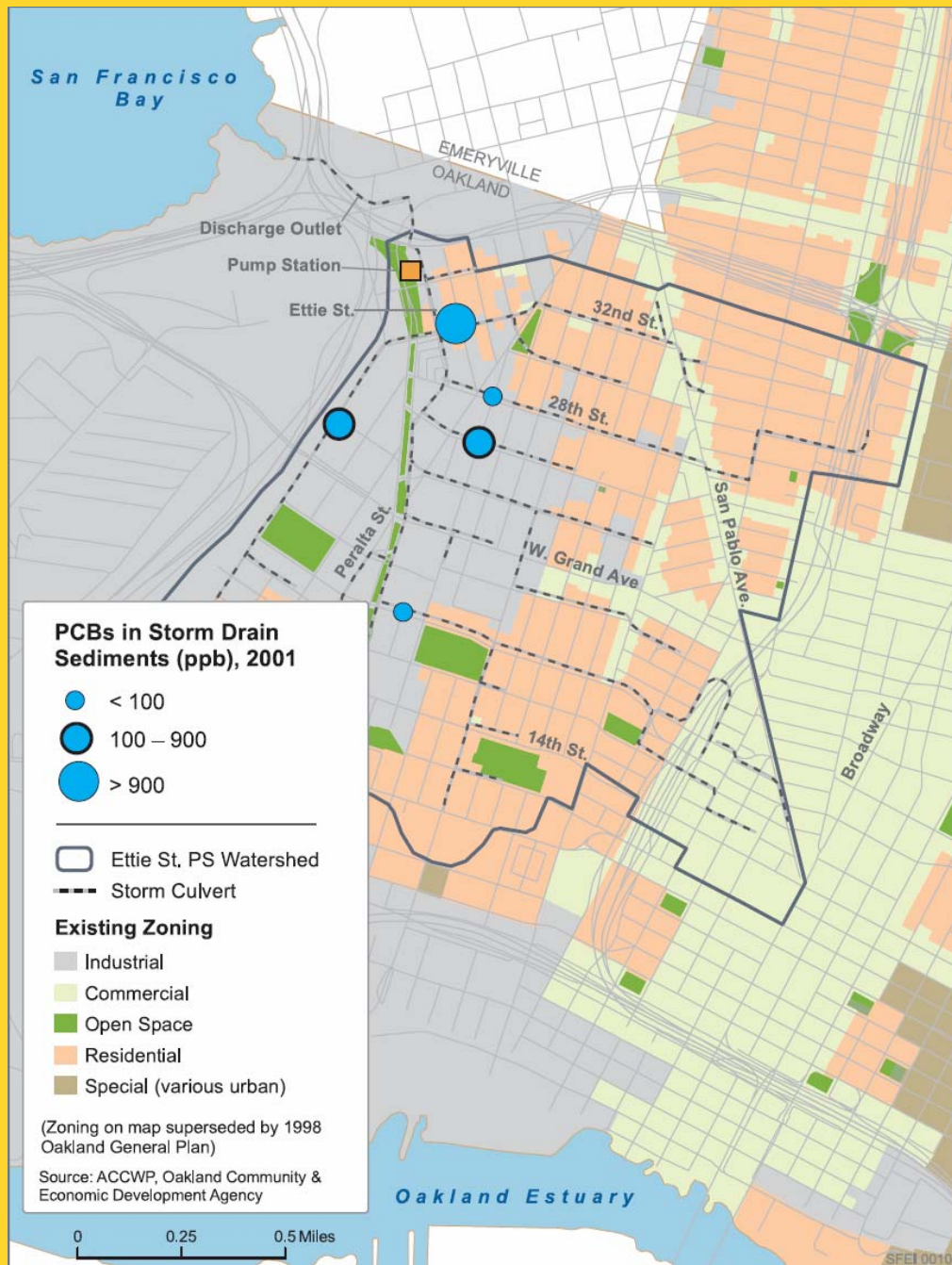
Site	City	Land Use
Delta Star	San Carlos	IND
Leo Avenue	San Jose	IND
Colma Cr.	Colma	RES/COM
Pulgas Cr. Pump Station	San Carlos	IND
Nebraska St.	Vallejo	RES/COM
S. Maple Pump Station	S. San Francisco	IND
Cutting Blvd.	Richmond	IND
Ettie St.	Oakland	MIX URBAN
Old Oakland Rd.	San Jose	MIX URBAN
Monterey Hwy.	San Jose	IND



# Ettie Street Project

- Research: PCB use & agency files.
- Site inspections.
- Sampling - public right of ways.
- Sampling - private properties.
- Abatement efforts.





# Ettie Street Research/Inspections

- Records review for 1700+ businesses.
- Driving/walking survey of entire watershed.
- Inspected 123 properties.



## High priority uses or activities associated with PCBs, from checklist for site screening in the PCB Abatement Project in the Ettie Street Pump Station watershed (Salop 2004)

- Manufacture or handling of electrical applications  
(transformers, appliances, televisions, fluorescent light ballast, motors, etc.)
- Hydraulic fluids  
(lifts, die-casting machinery, etc.)
- Plasticizers  
(sealants, caulk, PVC, polyurethanes, polycarbonates, etc.)
- Drum cleaning/recycling\*
- Auto recycling/scrap
- Outdoor burning or combustion\*
- Miscellaneous  
(coatings, printing inks, pesticides)

# Ettie Street Sediment Sampling

- Ranked inspected properties.
- Sampled 37 right-of-way sites.
- Sampled 19 private properties.
- Sampled 18 random right-of-way sites to check methods.

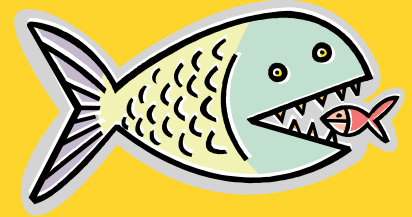
# Ettie Street Cleanup Program

- Right-of-way pilot cleanup program.
- Public outreach program.
- Private property cleanup program: Oakland, Water Board, DTSC, USEPA and owners.

# Challenges Ahead

- Prioritize watersheds?
- Apply methods to ID/prioritize sources in other watersheds and refine as needed.
- Identify responsible parties to perform investigations/cleanups or find sources of funding.

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