

WATER QUALITY ASSESSMENT AND 2016 303(d) LIST OF IMPAIRED WATER BODIES

Board Hearing
April 12, 2017

Richard Looker



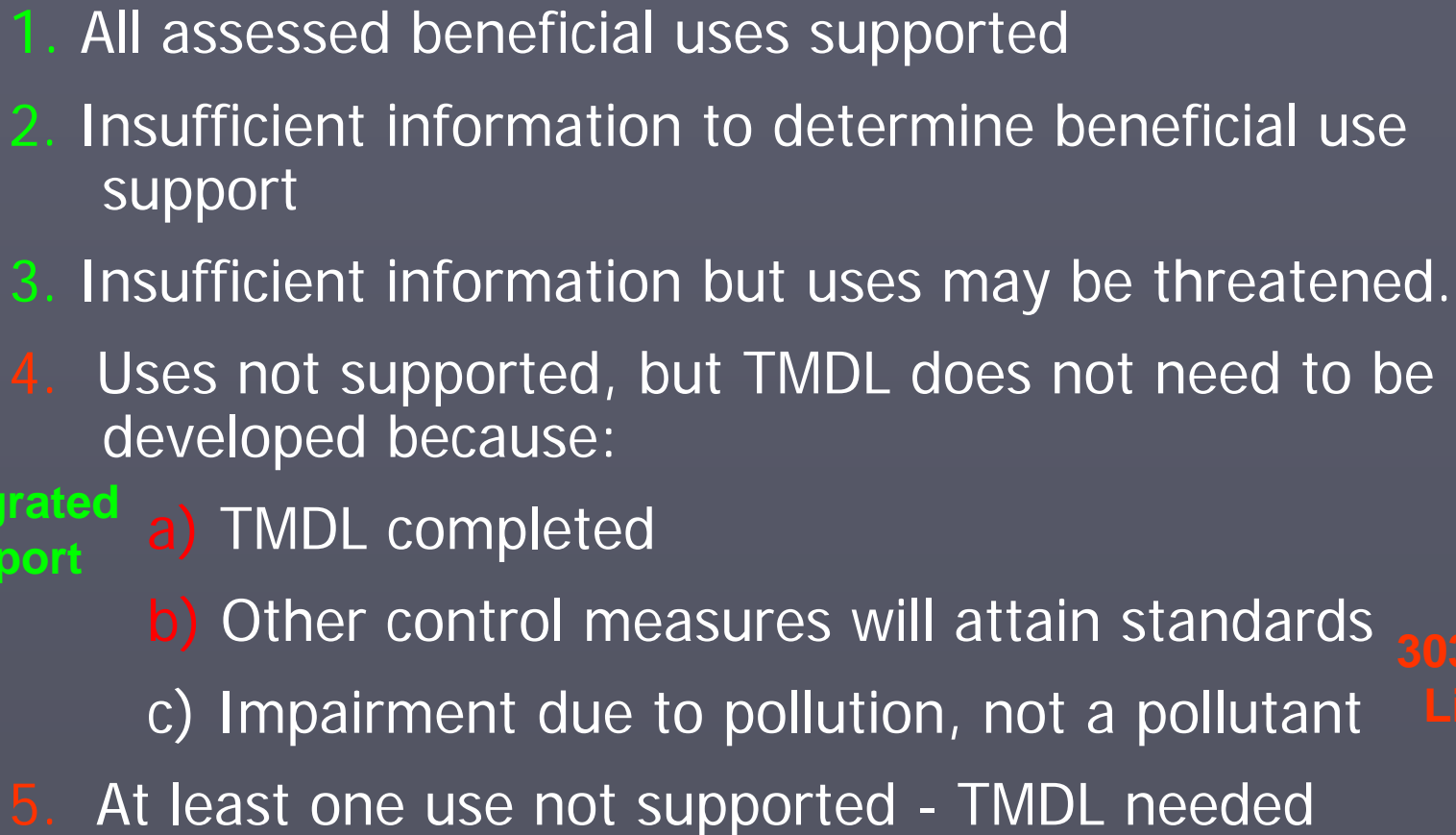
Water Quality Assessment

Integrated
Report



303(d)
List

Integrated Report Categories

- 
1. All assessed beneficial uses supported
 2. Insufficient information to determine beneficial use support
 3. Insufficient information but uses may be threatened.
 4. Uses not supported, but TMDL does not need to be developed because:
 - a) TMDL completed
 - b) Other control measures will attain standards
 - c) Impairment due to pollution, not a pollutant
 5. At least one use not supported - TMDL needed

Integrated
Report

303(d)
List

Sources of Data



RMP data: sediment, water, tissue
= 500 lines of evidence



SWAMP data: fish tissue, sediment and
water in creeks = 1850 lines of evidence



Beach Watch pathogen monitoring
= 400 lines of evidence



Other sources = 300 lines of evidence

2016 303(d) List Timeline

State Board data solicitation (2010)

Assess data/create lines of evidence

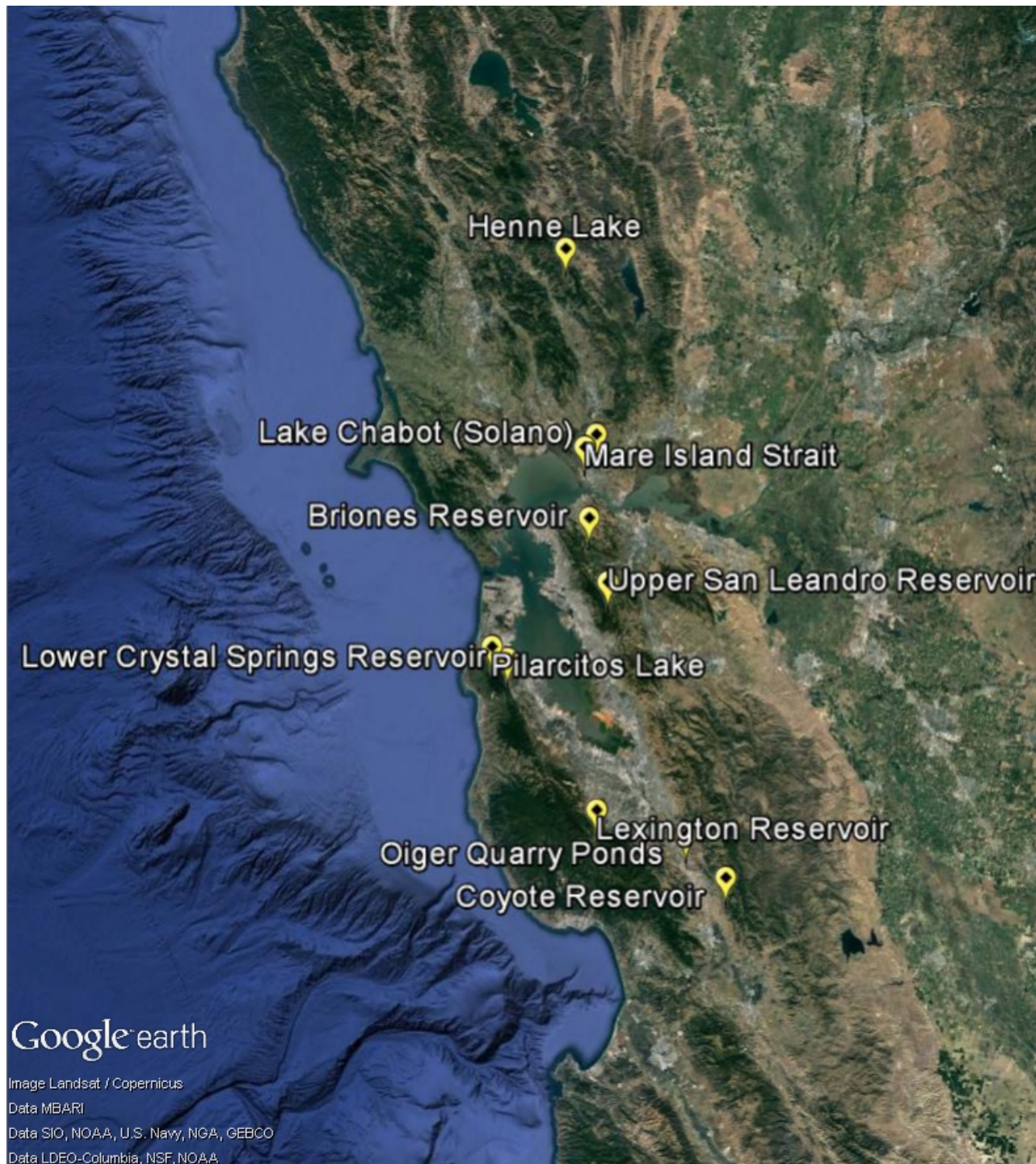
Make recommendations for list changes (Fall 2016-Feb 2017)

Staff Report/public comment/revisions (Feb 10-Mar 13)

Regional Board approval (then to State Board)

New Mercury Listings

- Briones Reservoir
- Coyote Reservoir
- Henne Lake
- Lake Chabot (Solano)
- Lexington Reservoir
- Lower Crystal Springs Reservoir
- Mare Island Strait
- Oiger Quarry Ponds
- Pilarcitos Lake
- Upper San Leandro Reservoir



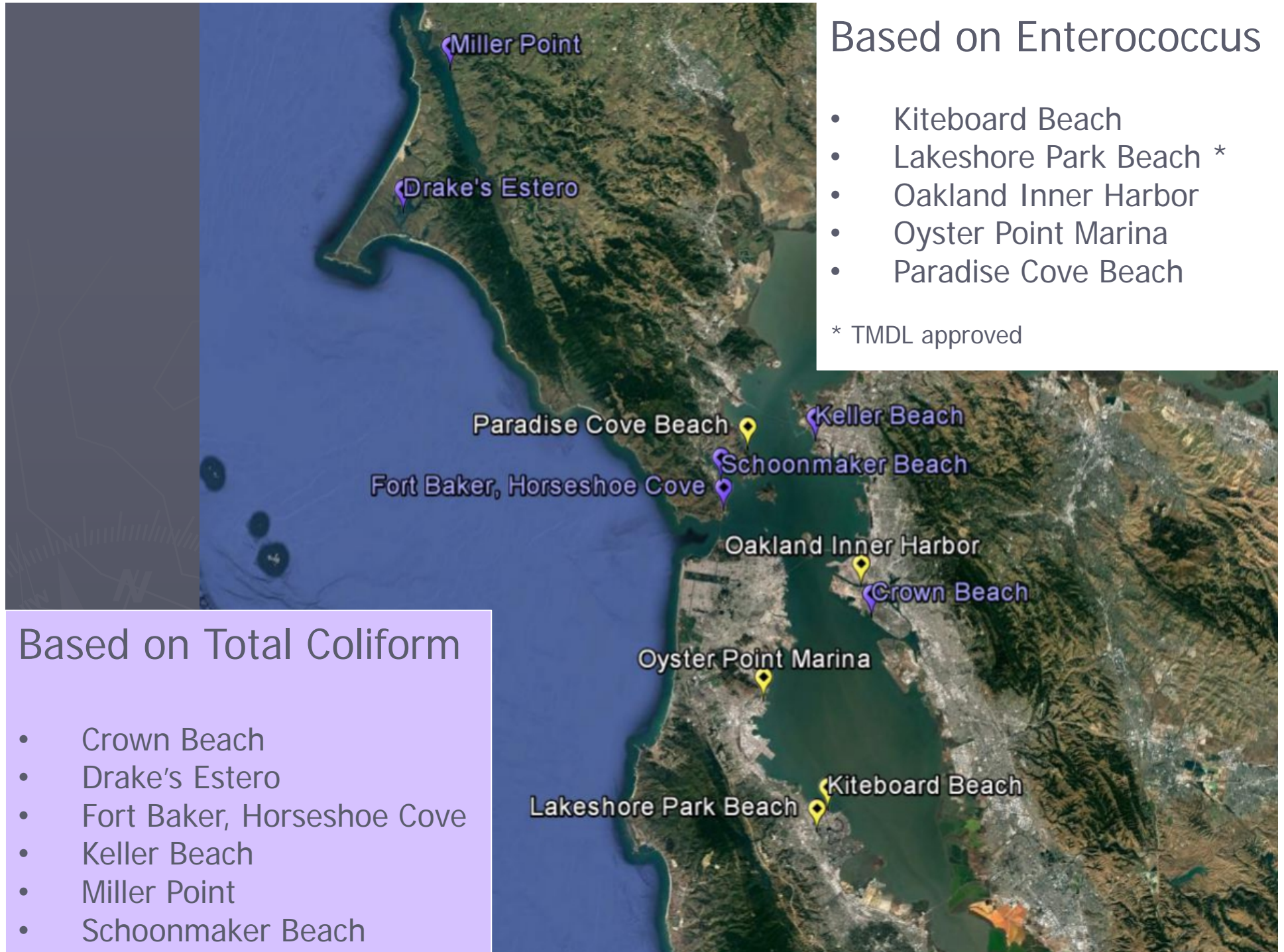
Based on Enterococcus

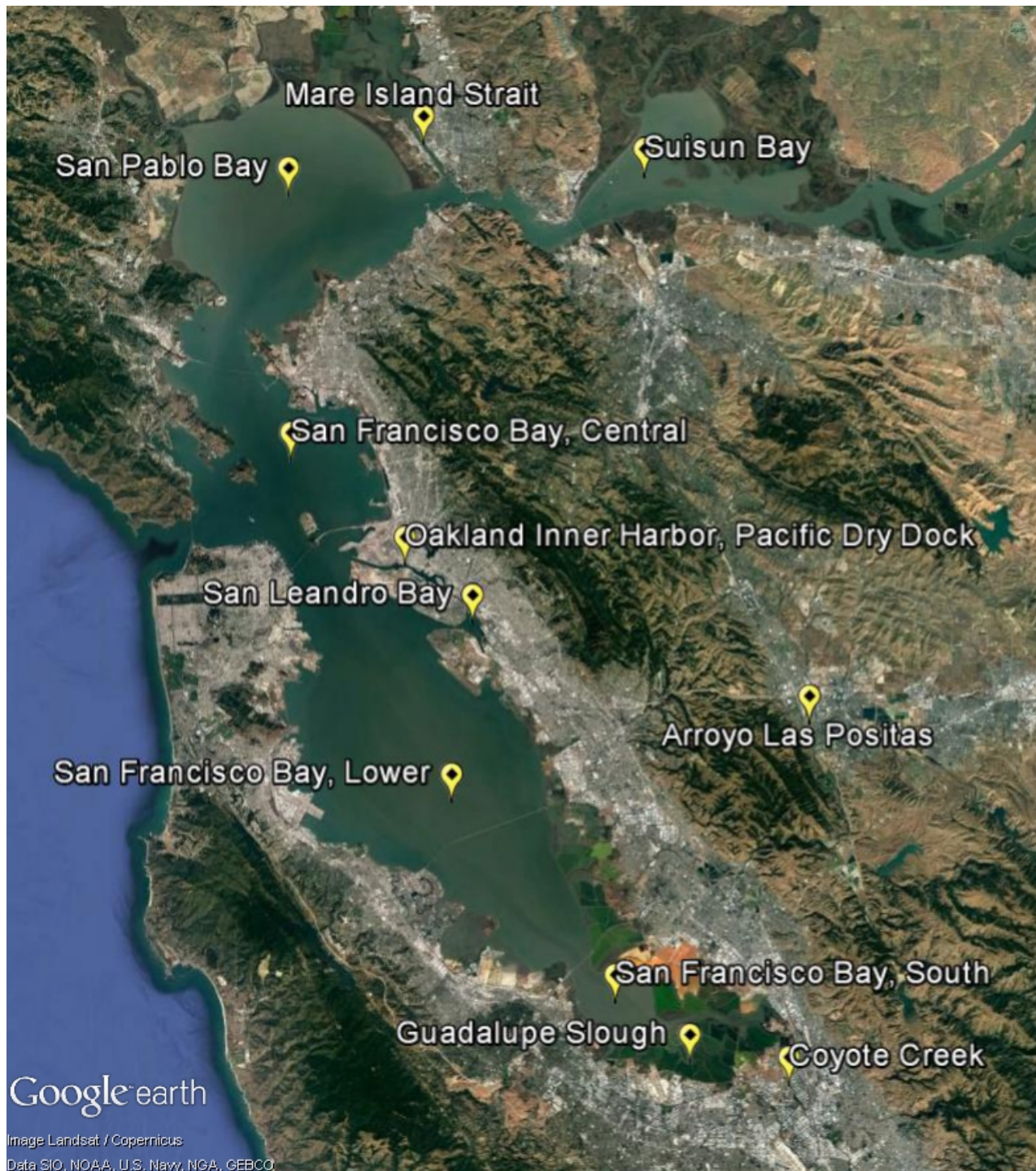
- Kiteboard Beach
- Lakeshore Park Beach *
- Oakland Inner Harbor
- Oyster Point Marina
- Paradise Cove Beach

* TMDL approved

Based on Total Coliform

- Crown Beach
- Drake's Estero
- Fort Baker, Horseshoe Cove
- Keller Beach
- Miller Point
- Schoonmaker Beach





New Toxicity Listings

- Coyote Creek (Santa Clara Co.)
- Guadalupe Slough
- Mare Island Strait
- Oakland Inner Harbor, Pacific Dry Dock
- SF Bay, Central
- SF Bay, Lower
- SF Bay, South
- San Leandro Bay
- San Pablo Bay
- Suisun Bay

Other Listings

- Mare Island Strait
 - Chlordane
 - DDT
 - Dieldrin
 - Mercury *
 - PCBs *
- San Leandro Bay
 - DDT

* = TMDL approved

Google earth

Image Landsat / Copernicus
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Proposed De-Listings

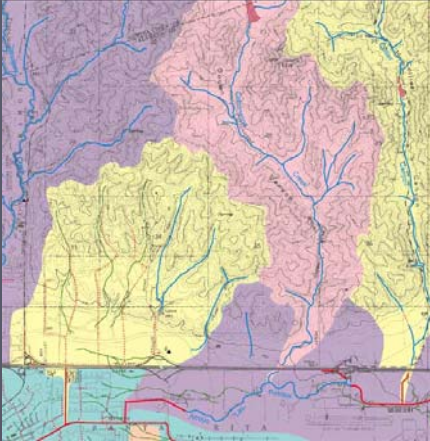
Waterbody	Pollutant(s)
Calabazas Creek	Diazinon
Heart's Desire Beach (Tomales Bay)	Indicator Bacteria
Lawson's Landing (Tomales Bay)	Indicator Bacteria
Pacific Ocean at Baker Beach	Indicator Bacteria
Pacific Ocean at Bolinas Beach	Indicator Bacteria
Pacific Ocean at Fitzgerald Marine Reserve	Indicator Bacteria
Pacific Ocean at Muir Beach	Indicator Bacteria
Pacific Ocean at Rockaway Beach	Indicator Bacteria

Eight Comment Letters Received

- Alameda County Clean Water Program
- Bay Area Clean Water Agencies
- Center for Biological Diversity
- Earth Law Center (and others)
- Santa Clara Valley Urban Runoff Pollution Prevention Program
- Santa Clara Valley Water District
- Western States Petroleum Association



Changes made in response to comments



We do not recommend listing Arroyo Las Positas for toxicity because of data quality concerns.

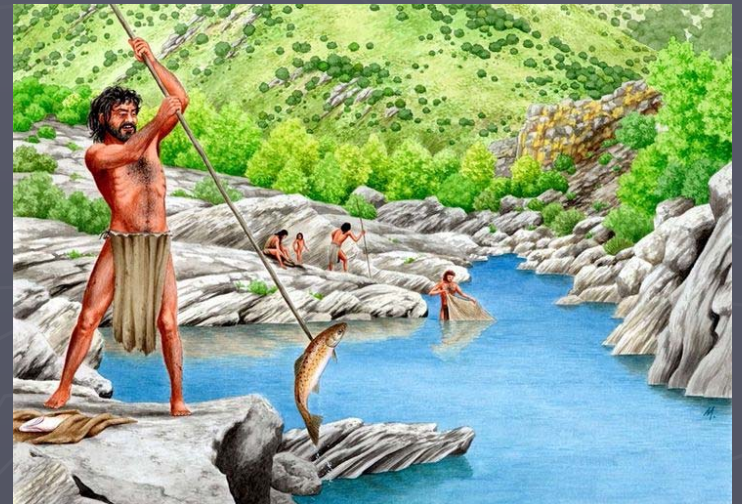


We recommend not listing Fort Funston for indicator bacteria – insufficient information but possible impairment.

We do not recommend listing South San Francisco Bay for Heptachlor Epoxide. Re-evaluation of data suggest no exceedances of fish tissue guidelines.

Comment: 303(d) List based on outdated data

- ▶ Newest data from 2010
- ▶ Listing Policy requires evidence to exclude data:
 - Implementation of management practice
 - Restoration efforts
 - Data after implementation



Early RMP fish sampling technique

Comment: sediment toxicity listings are not well supported

- ▶ Persistent & widespread Bay toxicity
 - Data available from multiple test organisms
- ▶ Clay may impact amphipod test organism
- ▶ RMP will continue pursuing:
 - Possible causes
 - Improving test protocols



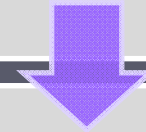
E. Estuarius – amphipod test organism

Comment: list waterbodies for flow impairment

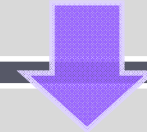
- ▶ Lack of flow objective –numeric or narrative
- ▶ No evaluation framework to assess data
- ▶ Framework should include:
 - Evidence linking water quality impacts to flow
 - Linkage of water withdrawals to reduced flow
 - Information on unimpaired, natural flow regime

Next Steps and Wrap Up

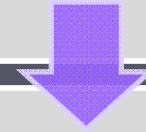
State Board data solicitation



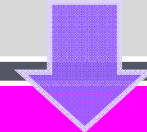
Assess data, create lines of evidence



Recommend list changes



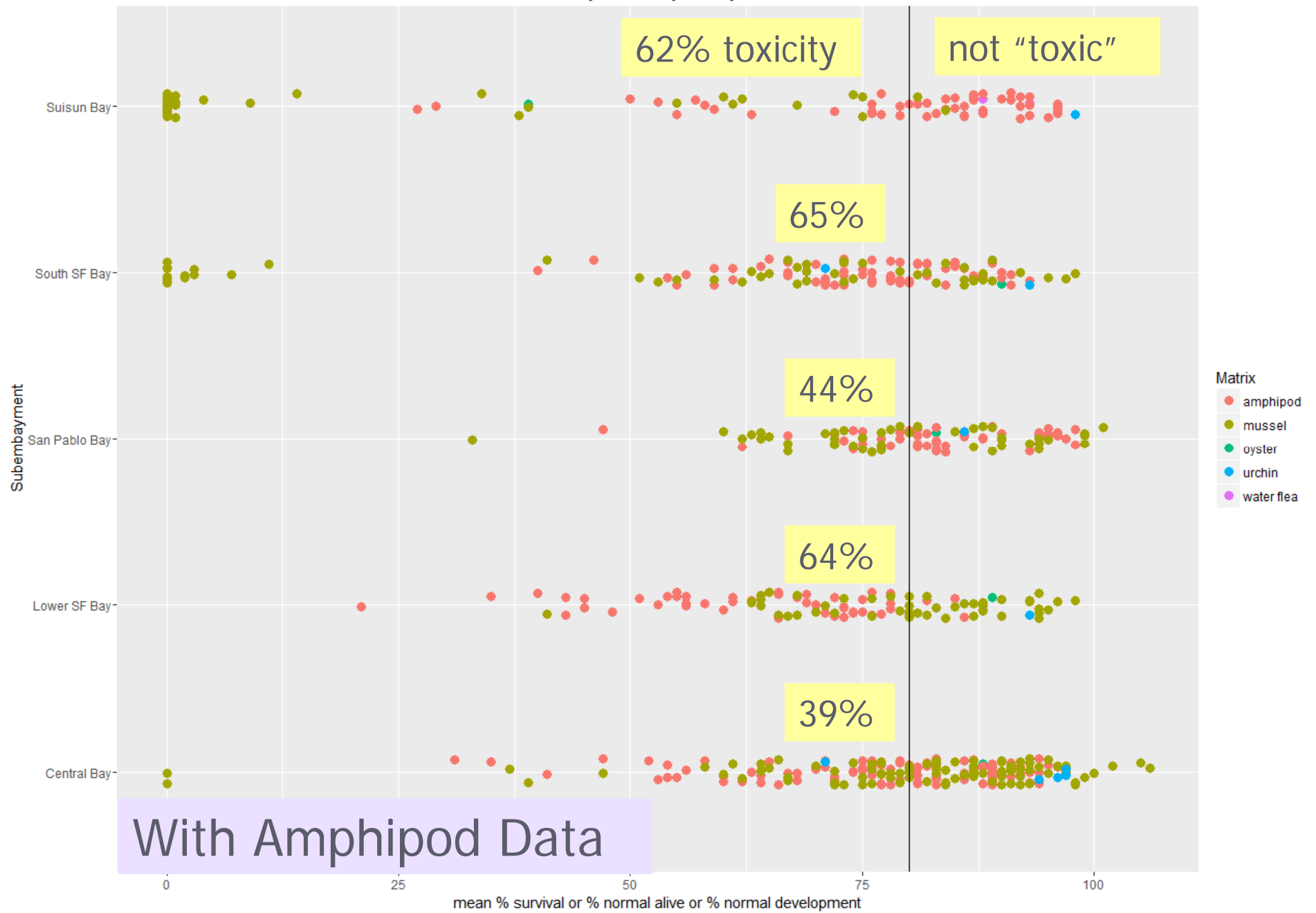
Staff Report, comments, revisions



Regional Board approval (next to State Board)



Toxicity Results by Embayment



Non-Amphipod Toxicity Results by Embayment

