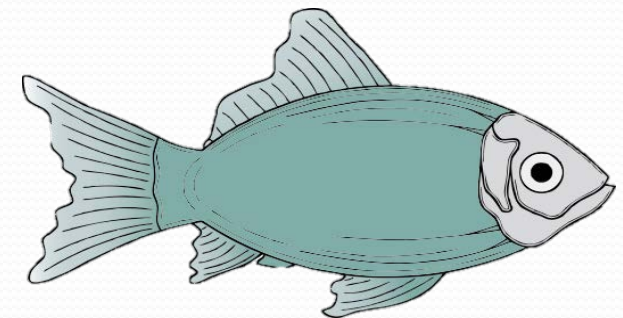


Reservoir water chemistry and fisheries management questionnaire



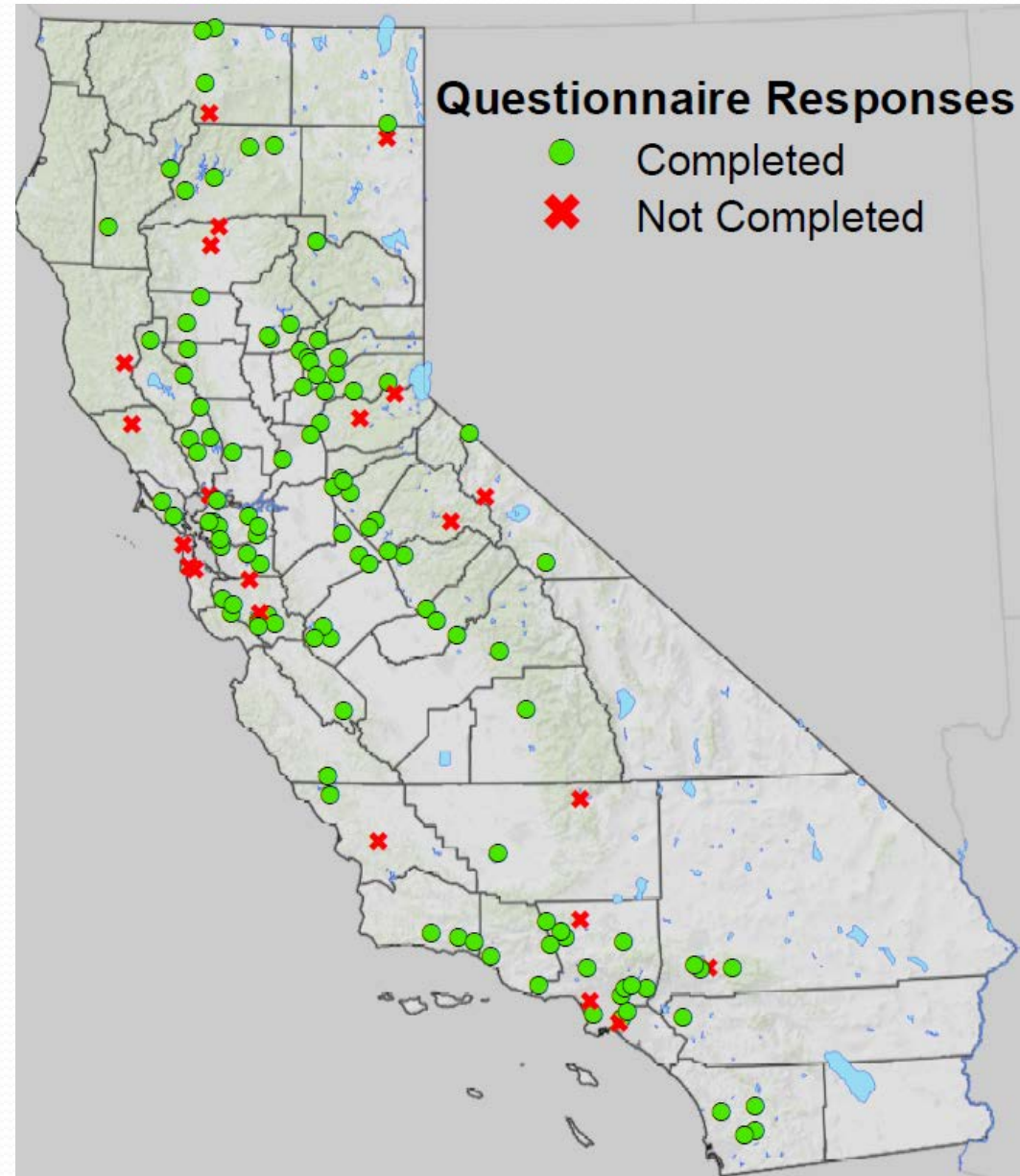
Background and Goals

- Understand management strategies in mercury-impaired reservoirs
- Use this information to group reservoirs for pilot studies
- Encourage a collaborative approach to share resources and expertise

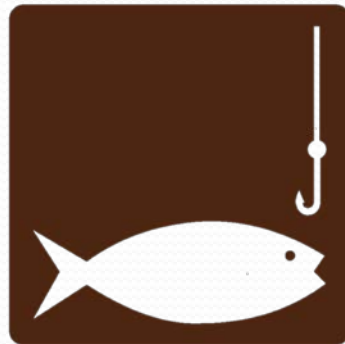
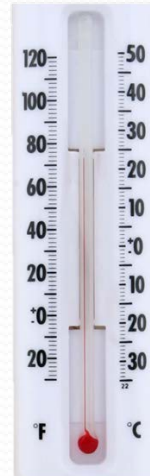
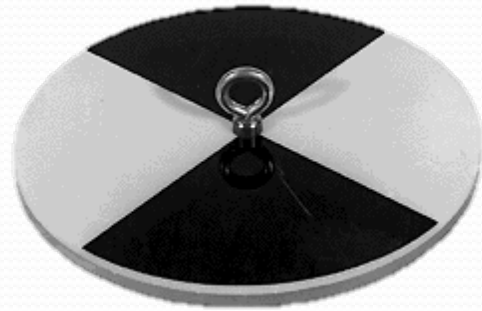


Results Summary

- All geographic regions represented
- Mix of ownership types:
 - Federal/State Agency
 - City/County
 - Large Municipality
 - Small Private

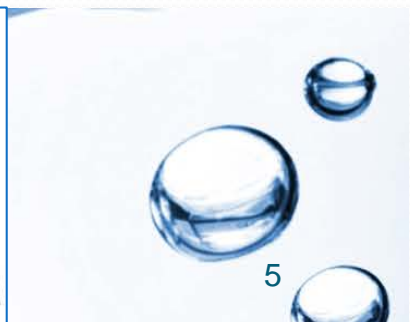
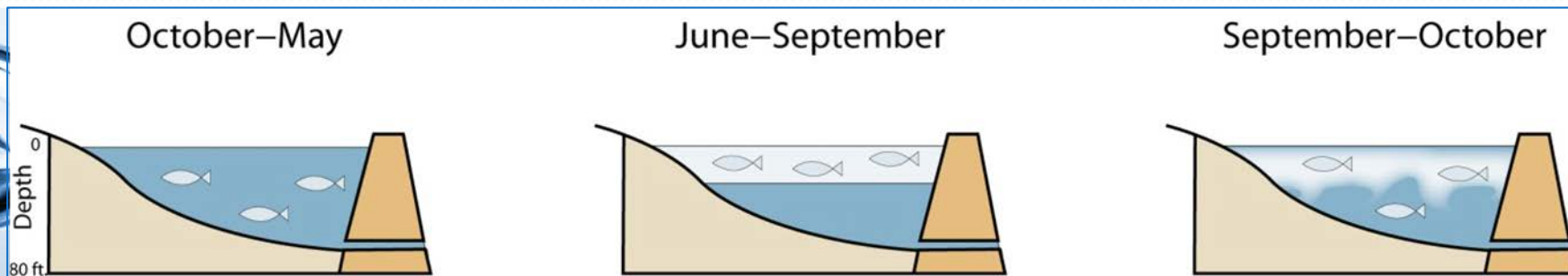


Reservoir Characteristics



Current Water Chemistry Management

- Oxygenation – about 15% manage for Oxygen
 - Mainly to reduce algae growth, taste & odor in drinking water
 - A few reservoirs plan to manage for oxygen
- Nutrient Addition: A few plan to restore historical salmon runs including fish ladders or minimal additions of nitrogen or phosphorus



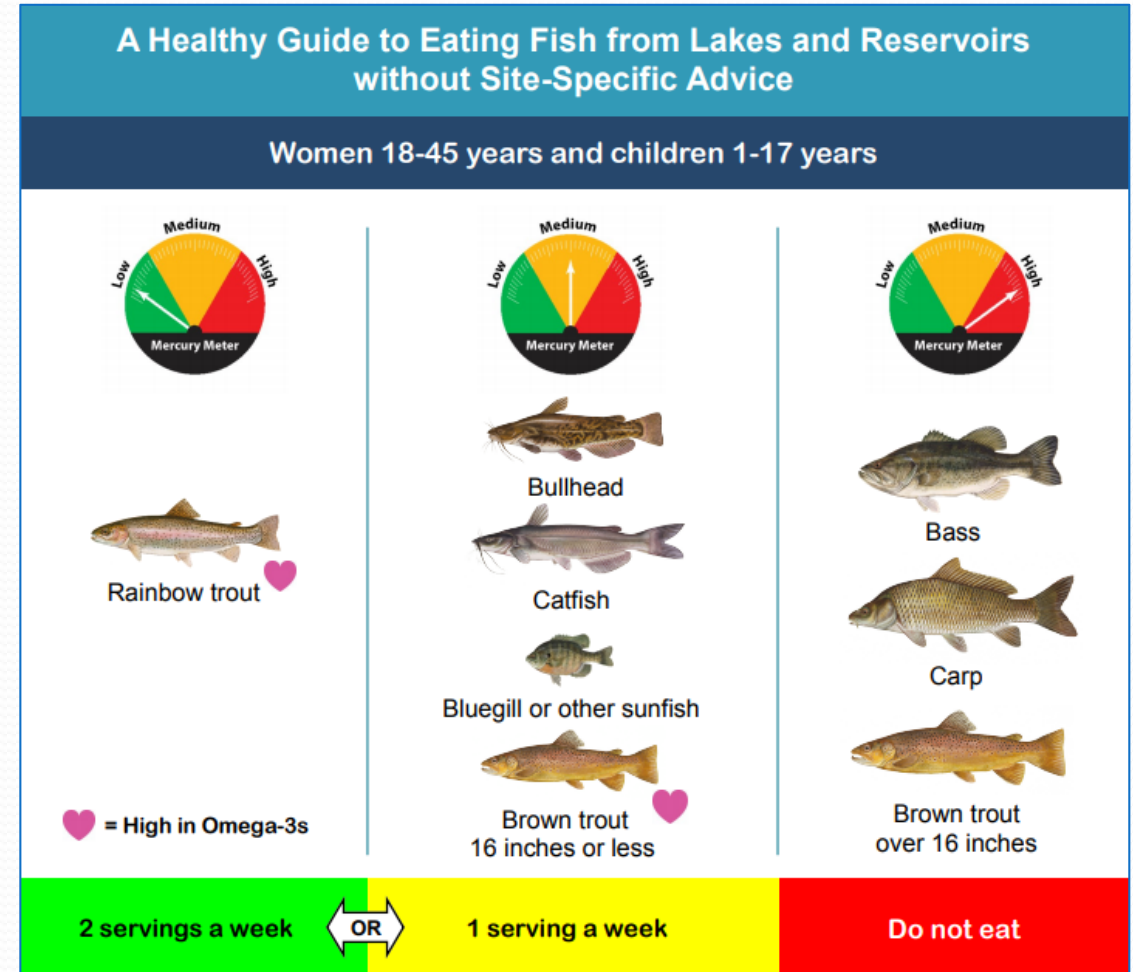
Mercury Monitoring and Management

- > 60% reported THg or MeHg studies (67 reservoirs)
 - Majority THg in water column; MeHg in fish; THg in sediment
- 10 reservoirs have upstream Hg management
- 3 reservoirs managed to reduce Hg
- 2 in-reservoir sediment removal or encapsulation projects



Fisheries Management

- 90% allow public fishing
- 60% stock fish and over 70% confirm consumption
 - LMB, Rainbow Trout, Channel Catfish, Carp, SMB



Pilot Test Binning Options: Pros and Cons

Sources

- Actively eroding upstream mines
- Owner/operators lack ability to compel cleanup, atmospheric dep.

Geographic Region

- Ease of coordination; many have similar ecology & water quality
- Majority located in Central Valley & SF Bay Regions

Reservoir Size

- Similar implementation challenges
- Different ecology & water quality despite same size (e.g. elevation)

Geologic Region

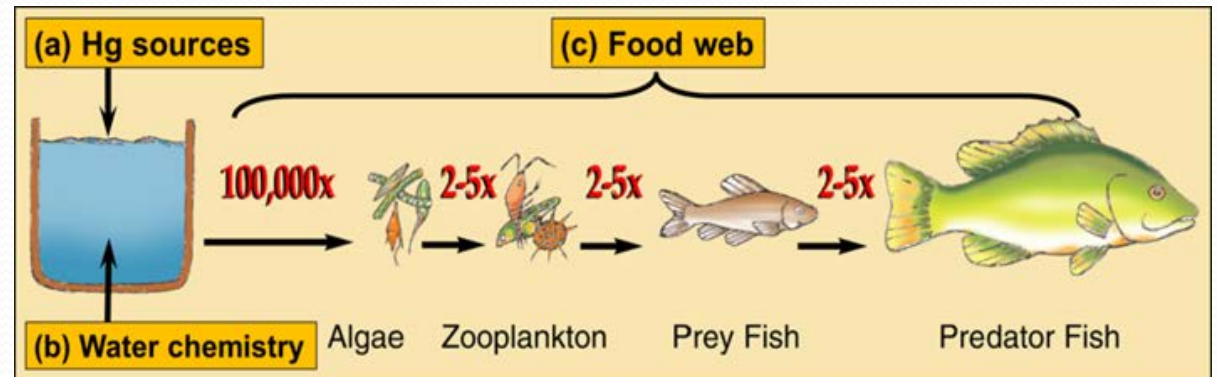
- Similar Hg enrichment
- Not enough broad regions for multiple tests

Reservoir Function & Management

- Similar water level management practices
- Reservoir function unrelated to water quality

Other Binning Suggestions

- Highest Trophic Level
 - Easy to compare to WQO
- Source of water
 - Imported outside watershed
 - Groundwater
 - Potable
- Degree of contamination



Discussion: Binning



Where should pilot tests occur?

42% Greatest Reduction in Fish MeHg

38% Other WQ mgmt. practices planned

30% Greatest consumption of fish

22% Ease of operations

Pilot Test Selection

25% Oxidant Addition

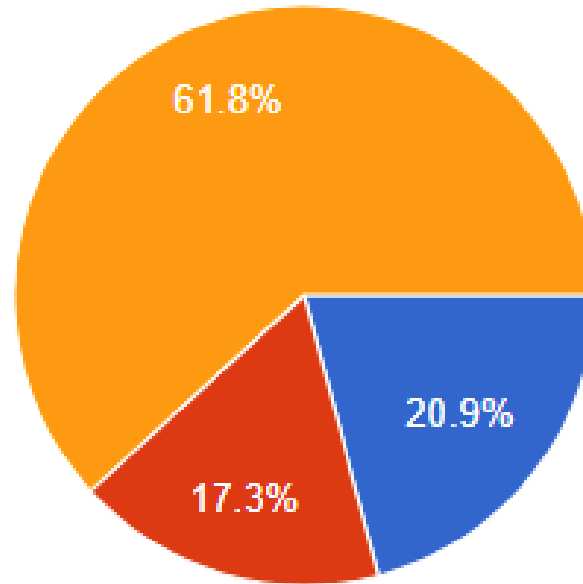
18% Changes to fish stocking practices

16% Other practices to reduce methylation

15% Changes to fish assemblage



Willingness to Conduct Pilot Test



- Yes
- No
- Unsure at this time



Financial & Technical Contributions

Pilot Test

Financial

84% Unsure

Technical

62% Unsure

Technical Review Committee

Financial & Technical

58% Unsure



Discussion: Pilot Tests and Contributions

What additional information is needed to make contributing financial or technical assistance from 'undecided' to 'decided' in order to support a collaborative approach?

