



RTD-13

Testimony of Tim Stroshane

Policy Analyst, Restore the Delta

California WaterFix Change Petition Proceeding

Part 2

Topics (1)

- Flow and Water Quality Changes, including Water Transfers.
- Stressors' interaction: Selenium and Non-native Invasive Clams.
- Giant Garter Snake Status and Habitat.

Topics (2)

- Fish Screens
- Appropriate Delta Flow Criteria.
- Reduced Delta Reliance.
- Reasons Petition Facilities are an Unreasonable Method of Diversion.

Flow and Water Quality Changes

- Brief summary:
 - Removal of flowing water from lower Sacramento River.
 - Greater frequency of San Joaquin River source flowing into central and western Delta.
 - Increased water residence time.
- Increased capacity for water market transfers via Petition Facilities.

Stressors' Interactions

- Selenium reservoir, biogeochemistry, loading, ecosystem interaction.
- Nonnative, invasive clams—*Potamocorbula amurensis* and *Corbicula fluminea*
 - Selenium bioaccumulation.
 - Salinity-range thresholds and flows.
 - DRERIP conceptual model.
- Region 2 Total Maximum Daily Load (TMDL) for selenium in northern San Francisco Bay estuary.

Interaction Recommendations (1)

- Selenium loads may change if San Joaquin River flows increase through the Delta.
- Consider quarterly studies available also to interested parties:
 - Bird egg monitoring.
 - Sturgeon muscle tissue plug sampling.
 - Fin ray sampling from sturgeon and other fish.

Interaction Recommendations (2)

- Require Petitioners to apply an early warning system for selenium contamination to Delta ecosystems, to implement Region 2 Selenium TMDL.
- Require increased selenium management in adaptive management scope through permit conditions.

Giant Garter Snake Status and Habitat

- Loss and fragmentation of native wetland and marsh habitat.
- Adapted somewhat to rice fields as alternative habitat.
- Urbanization converting aquatic land.
- Levee and canal maintenance (loss of vegetative cover).
- Water transfers—crop idling or shifting, reservoir releases, groundwater substitution.
- Small dispersed populations.
- Invasive aquatic competitors.
- Selenium and other contamination concerns for GGS favored prey—tadpoles, frogs, toads, small fish.

Giant Garter Snake Recommendations

- Look to 2017 GGS Recovery Plan.
- Require funding, expertise, and land purchases to establish “block pairings” of GGS-favored habitat and corridors.
- Improve water quality in suitable habitat.
- Include GGS studies in adaptive management program scope.

Appropriate Delta Flow Criteria Considerations

- Criteria-setting should be mindful of broader California water policy framework.
- D-1641 and vague “adaptive management process” are inadequate as permit conditions.

Recommendations

- If SWRCB intends to approve Change Petition:
 - Conduct water availability analysis for Change Petition.
 - Conduct comprehensive benefit-cost analysis accounting for all nature's services in the Delta.
 - Protect giant garter snake habitat in Delta and upstream.
- Otherwise: Change Petition is contrary to plain language of Water Code § 85086(c)(2).

Reduced Delta Reliance for Meeting California's Future Water Needs

- Numerous statements indicate water transfers will increase when Petition Facilities begin operation:
 - Petitioners' environmental documents.
 - Westlands Water District.
 - Kern County Water Agency.
 - Metropolitan Water District of Southern California.

Change Petition proposes unreasonable method of diversion (1)

- Increase in stressors' interaction between selenium loading and nonnative invasive clams.
- Further reduction in giant garter snake habitat in-Delta and in Sacramento Valley.
- X2 and Category B public trust-protective flow actions from SWRCB 2010 Delta flow criteria report.

Change Petition proposes unreasonable method of diversion (2)

- Fish screens touted to protect small fish have high uncertainty of success.
- Increased water transfers contrary to Legislature's command to reduce Delta reliance for California's future water needs.
- Change Petition scope and description contrary to Legislature's formulation of change in diversion points.

Change Petition proposes unreasonable method of diversion (3)

- Lack of compliance with state's scheme for acquiring and exercising appropriative water rights permits.
- Change Petition violates principle that a right cannot be so changed as to constitute a new right.