



RTD-13 (Revised)

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**California WaterFix Change Petition Proceeding
Part 2**

Topics

1. Flow and Water Quality Changes, including Water Transfers.
2. Stressors' interaction: Selenium and Nonnative Invasive Clams.
3. Giant Garter Snake Status and Habitat.
4. Fish Screens.
5. Appropriate Delta Flow Criteria.
6. Reduced Delta Reliance.
7. Reasons for Board Denial of Change Petition.

Topic 1: Flow and Water Quality Alterations

- 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.

Topic 2: 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.

Topic 2: Stressors Recommendations

- 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.

Topic 2: Stressors Recommendations (cont.)

- 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.

Topic 3: Threats to Giant Garter Snake (GGS)

- 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.

Topic 3: 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.

Topic 4: Fish Screens

Fish screens touted by Petitioners to protect small fish yet have high uncertainty of success.

**Topic 5:
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.

Topic 5: Flow Criteria 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.
- Change Petition contrary to plain language of Water Code § 85086(c)(2).

Topic 6: Failure to Reduce Delta Reliance to Meet California's Future Water Needs

- Numerous statements indicate water transfers will increase when Petition Facilities begin operation, contrary to Water Code Sec. 85021:
 - Petitioners' environmental documents.
 - Westlands Water District.
 - Kern County Water Agency.
 - Metropolitan Water District of Southern California.

RTD Recommends Permit Conditions to Address Numerous Adverse Impacts

- Increase in stressors' interaction between selenium loading and nonnative invasive clams.
- GGS habitat in-Delta.
- X2 and Category B public trust-protective flow actions from SWRCB 2010 Delta flow criteria report.

**Topic 7:
Reasons for Board Denial of Change Petition**

- 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.

**Topic 7:
Reasons for Board Denial of Change Petition**

- 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.