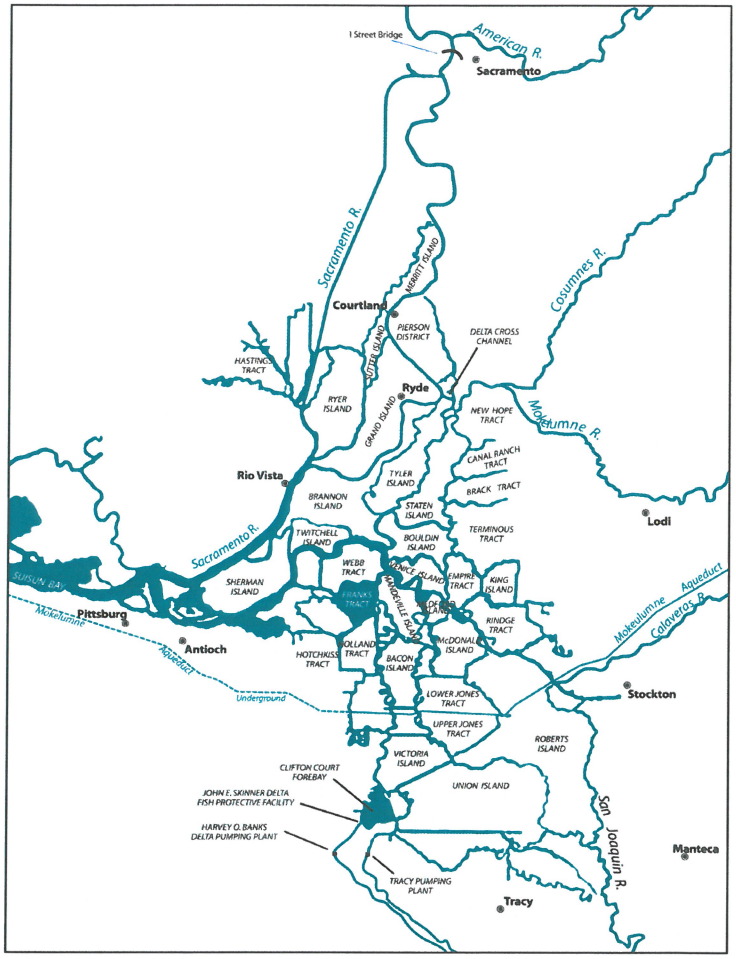
Sacramento-San Joaquin Delta



Key Threats

- Unnatural flow regimes through the Delta pulling juvenile salmonids towards the south Delta pumps.
- Loss of riparian habitat and instream cover affecting juvenile rearing and outmigration
- Loss of floodplain habitat affecting juvenile rearing and outmigration
- Levee maintenance actions that reduce the quality of migration and rearing habitat
- Predation by non-native fish species
- Entrainment at unscreened diversions
- Water quality impacts from agricultural and urban runoff
- Fish passage impediments/barriers for immigrating adults in the Sacramento Deepwater Ship Channel and in the Yolo bypass

Priority 1 Recovery Actions[1]

- Develop, implement, and enforce new Delta flow objectives that mimic historic natural flow characteristics, including increased freshwater flows (from both the Sacramento and San Joaquin rivers) into and through the Delta and more natural seasonal and inter-annual variability.

- Reduce hydrodynamic and biological impacts of exporting water through Jones and Banks pumping plants.

- Provide pulse flows of approximately 17,000 cfs or higher as measured at Freeport periodically during the winter-run emigration season (i.e., December-April) to facilitate outmigration past Chipps Island.

- Identify management targets for Yolo Bypass inundation timing, frequency, magnitude, and duration that will maximize the growth and survival of juvenile winter-run Chinook salmon and spring-run Chinook salmon; and then manage the Yolo Bypass to those targets.

- Conduct landscape-scale restoration of ecological functions throughout the Delta to support native species and increase long-term overall ecosystem health and resilience.

- Develop and implement a targeted research and monitoring program to better understand the behavior, movement, and survival of steelhead, spring-run Chinook salmon, and winter-run Chinook salmon emigrating through the Delta from the Sacramento and San Joaquin rivers.

- Provide access to new floodplain habitat in the South Delta for migrating salmonids from the San Joaquin system.

- Modify Delta Cross Channel gate operations and evaluate methods to control access to Georgiana Slough and other migration routes into the Interior Delta to reduce diversion of listed juvenile fish from the Sacramento River and the San Joaquin River into the southern or central Delta.

- Minimize the frequency, magnitude, and duration of reverse flows in Old and Middle River to reduce the likelihood that fish will be diverted from the San Joaquin or Sacramento River into the southern or central Delta.

- Curtail exports when protected fish are observed at the export facilities to reduce mortality from entrainment and salvage.

- Improve fish screening and salvage operations to reduce mortality from entrainment and salvage.

- Utilize a Delta operations technical group to assist in determining real-time operational measures, evaluating the effectiveness of the actions, and modifying them if necessary.

[1] Not all priority 1 actions for the Delta are shown here.