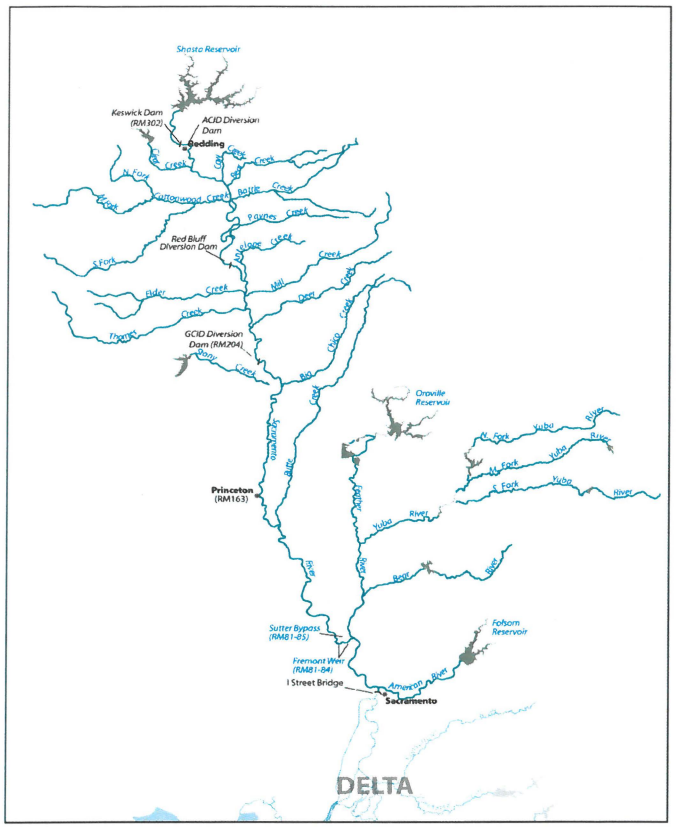
Mainstem Sacramento River Migratory Corridor



- Populations of winter- and spring-run Chinook salmon and steelhead spawn in the upper reaches of the Sacramento River below Keswick Dam. The priority of these populations is described in the regional summary of the Basalt and Porous Lava Diversity Group.
- The threats and actions identified below relate to the Sacramento River as a migratory corridor for populations in the Northwestern California, Basalt and Porous Lava, and Northern Sierra Nevada diversity groups. Threats and actions relating to spawning and embryo incubation in the Sacramento River are identified in the Basalt and Porous Lava diversity group summary.

Key Threats

- 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 conservation value of migration and rearing corridors
- Predation
- Juvenile fish injury and mortality at unscreened or poorly screened water diversions
- Degraded water quality from agricultural and urban runoff
- Lack of biological data for steelhead in the Diversity Group

Priority Recovery Actions

- Restore and maintain riparian and floodplain ecosystems along both banks of the Sacramento River to provide a diversity of habitat types including riparian forest, gravel bars and bare cut banks, shady vegetated banks, side channels, and sheltered wetlands, such as sloughs and oxbow lakes following the guidance of the Sacramento River Conservation Area Handbook.

- In an adaptive management context, implement short- and long-term solutions to minimize the loss of adult Chinook salmon and steelhead that enter the Yolo bypass, and Colusa and Sutter-Butte basins.

- Install NMFS-approved, state-of-the-art fish screens at the Tehama Colusa Canal diversion. Implement term and condition 4c from the biological opinion on the Red Bluff Pumping Plant Project, which calls for monitoring, evaluating, and adaptively managing the new fish screens at the Tehama Colusa Canal diversion to ensure the screens are working properly and impacts to listed species are minimized.

- Improve wastewater and stormwater treatment in residential, commercial, and industrial areas within the Sacramento River watershed.

- Increase monitoring and enforcement to ensure that the water quality criteria established in the Central Valley Water Quality Control Plan (Basin Plan) are met for all potential pollutants entering the Sacramento River.

- Implement studies designed to quantify the amount of predation on winter-run Chinook salmon, spring-run Chinook salmon, and steelhead by non-native species in the Sacramento River. If the studies identify predator species and/or locations contributing to low salmonid survival, then evaluate whether predator control actions (e.g., fishery management or directed removal programs) can be effective at minimizing predation on juvenile salmon and steelhead in the Sacramento River.

- Implement projects to minimize predation at weirs, diversions, and related structures in the Sacramento River.