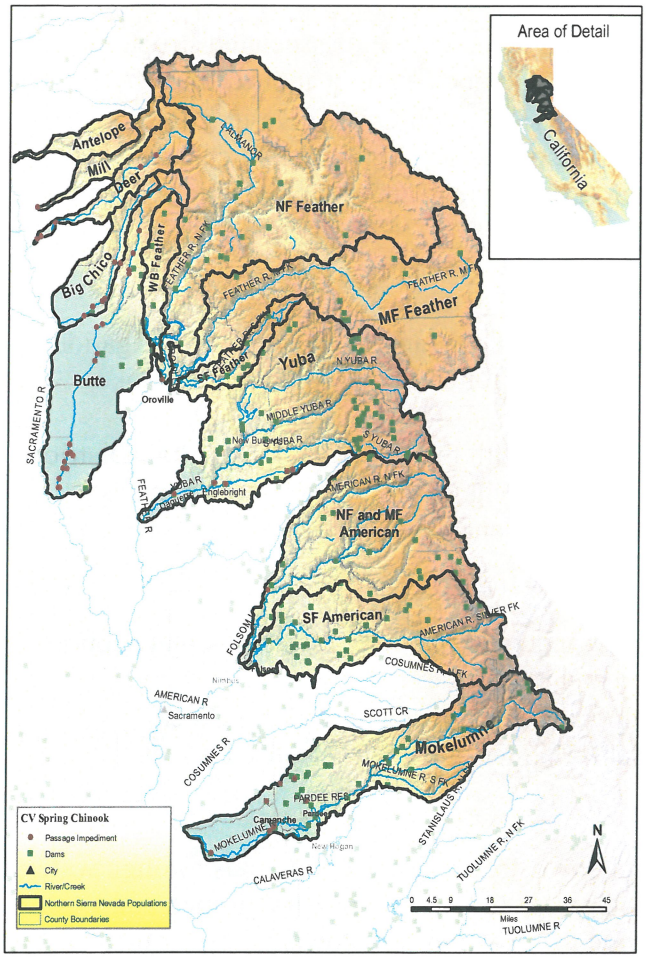
Northern Sierra Diversity Group



Core 1 Populations

- Mill Creek spring-run and steelhead
- Deer Creek spring-run and steelhead
- Butte Creek spring-run
- Antelope Creek steelhead

Primary Area for Reintroduction

- Upper Yuba River spring-run and steelhead

Core 2 Populations

- Antelope Creek spring-run
- Big Chico Creek steelhead
- Butte Creek steelhead
- Lower Feather River spring-run and steelhead
- Lower Yuba River spring-run and steelhead
- Auburn Ravine steelhead
- Lower American River steelhead
- Lower Mokelumne River steelhead

Key Threats

- Small passage impediments in Antelope, Mill, Deer, and Big Chico, and in the Feather and Yuba Rivers
- Large dams in the Feather, Yuba, and American rivers
- Low flows and warm water temperatures throughout the diversity group
- Hatchery impacts from the Feather River and Nimbus Fish hatcheries
- Loss of riparian and floodplain habitat
- Predation
- Lack of biological data for steelhead in the diversity group

Priority 1 Recovery Actions in the Northern Sierra Diversity Group[1]

Mill Creek

- Modify Ward, Upper, and Cemetery Ditch Siphon diversions and associated structures to provide unimpeded passage for adult and juvenile Chinook salmon and steelhead.
- Develop and implement instream flow agreements with Mill Creek diverters designed to provide flows that best support the life stages of spring-run Chinook salmon and steelhead that occur in the flow control reach (i.e., downstream of Upper Diversion to the confluence with the Sacramento River).

Deer Creek

- Modify the Cone-Kimball Diversion, Stanford-Vina Dam, and the Deer Creek Irrigation District Dam in order to provide unimpeded passage for adult and juvenile Chinook salmon and steelhead.
- Develop and implement instream flow agreements with the Deer Creek Irrigation District and the Stanford-Vina Ranch Irrigation Company designed to provide flows that best support all life stages of spring-run Chinook salmon and steelhead.

Butte Creek

- Identify and establish minimum instream flow requirements for Butte Creek that support all life stages of spring-run Chinook salmon and steelhead.
- Implement projects that improve water temperature management in Butte Creek, including facility modifications to the DeSabla-Centerville Hydroelectric Project

Antelope Creek

- Restore instream flows during upstream and downstream migration periods through water exchange agreements and provide alternative water supplies to Edwards Ranch and Los Molinos Mutual Water Company in exchange for instream fish flows.
- Implement fish passage improvement projects at Edwards Ranch and Penryn.

Yuba River

- Develop and implement a program to reintroduce spring-run and steelhead to historic habitats upstream of Englebright Dam. The program should include feasibility studies, habitat evaluations, fish passage design studies, and a pilot reintroduction phase prior to implementation of the long-term reintroduction program.
- Modify Daguerre Point Dam to provide unimpeded volitional upstream passage of adult steelhead and Chinook salmon (and sturgeon) and to minimize predation of juveniles moving downstream.

[1] Only a few of the priority 1 recovery actions for this diversity group are shown here.