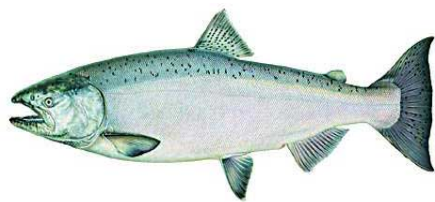


# SUMMARY OF THE PUBLIC DRAFT RECOVERY PLAN

FOR  
*SACRAMENTO RIVER WINTER-RUN CHINOOK SALMON*  
*CENTRAL VALLEY SPRING-RUN CHINOOK SALMON*  
AND  
*CENTRAL VALLEY STEELHEAD*



*National Marine Fisheries Service  
Southwest Region  
Sacramento, California*

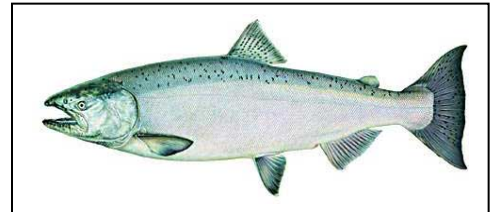




## **SPECIES ADDRESSED IN THIS RECOVERY PLAN**

### **Sacramento River winter-run Chinook salmon**

- Historically, winter-run Chinook salmon occurred in the headwaters of the upper Sacramento River. Currently restricted to habitat downstream from Shasta Dam.
- Listed as Endangered: January 1994



### **Central Valley spring-run Chinook salmon**

- Historically, spring-run Chinook salmon occurred in the headwaters of all major river systems in the Central Valley where natural barriers to migration were absent.
- Listed as Threatened: September 1999



### **Central Valley steelhead**

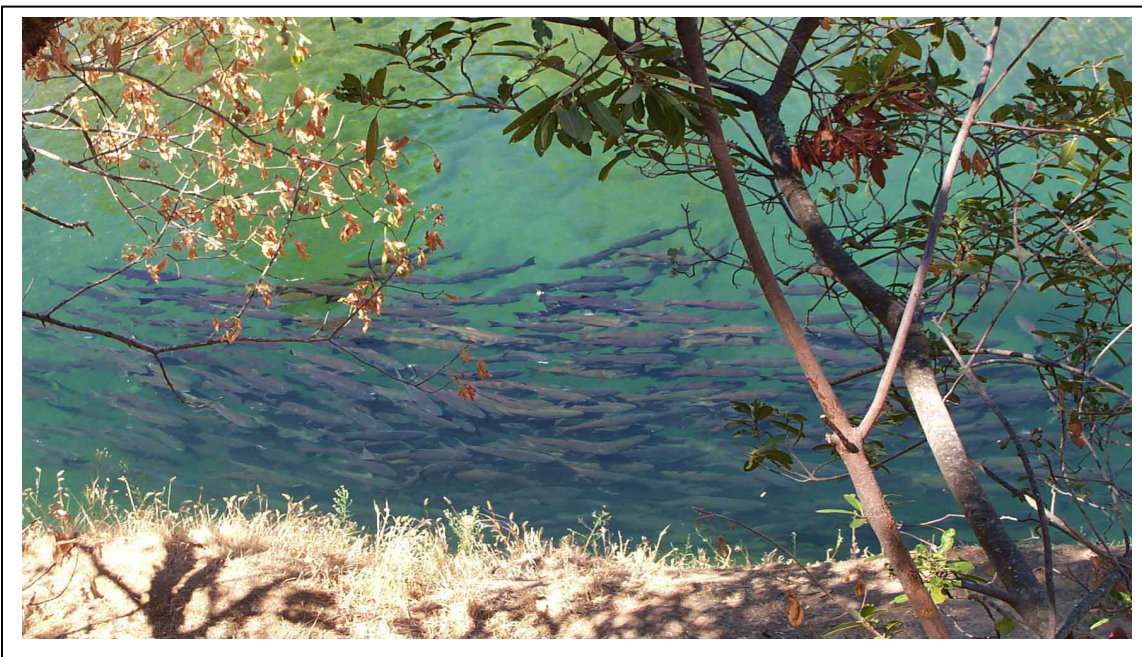
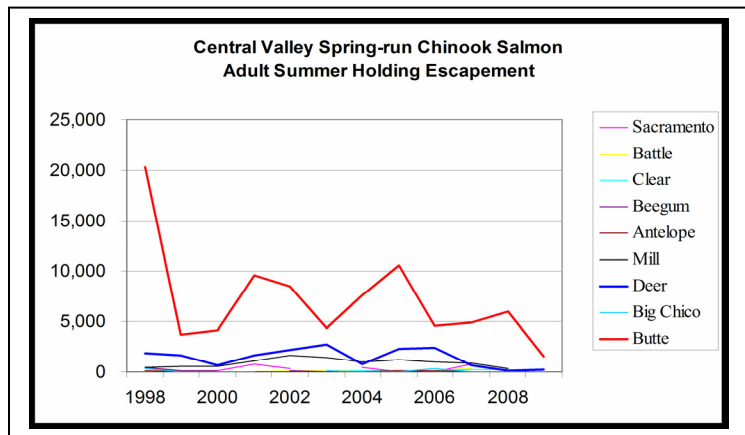
- Steelhead are the anadromous, or ocean-going, form of rainbow trout and historically occurred in the headwaters of all major river systems in the Central Valley where natural barriers to migration were absent.
- Listed as Threatened: March 1998

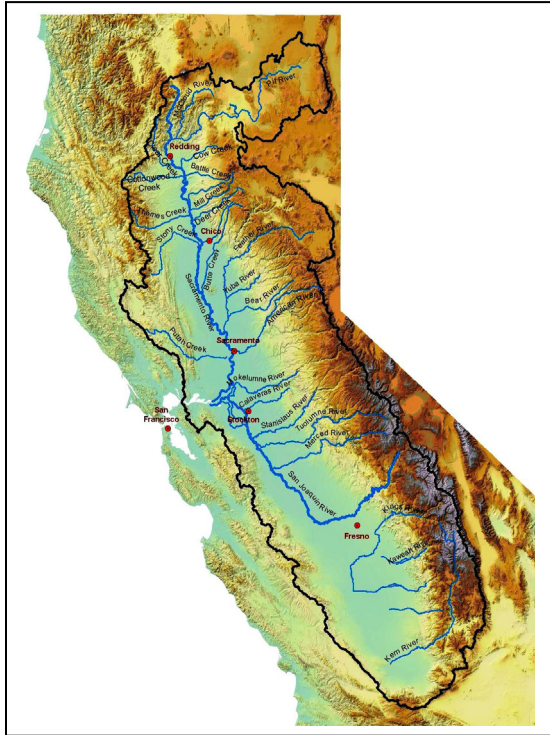




## SPECIES IN DECLINE

- Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, and Central Valley steelhead were once widely distributed and abundant throughout the Central Valley
- These fish supported important commercial and recreational fisheries for over 100 years
- 95% of historic spawning habitat has been lost due to dam construction
- 98% loss of riparian and floodplain habitat in the lower river and the Delta.
- Populations have been in decline since the 1960s
  - ❑ 1 out of 4 historic populations of winter-run remain
  - ❑ 3 out of and estimated 18 populations of spring-run remain
  - ❑ Only a few out of the 28 populations of steelhead remain
- All remaining populations are declining in abundance





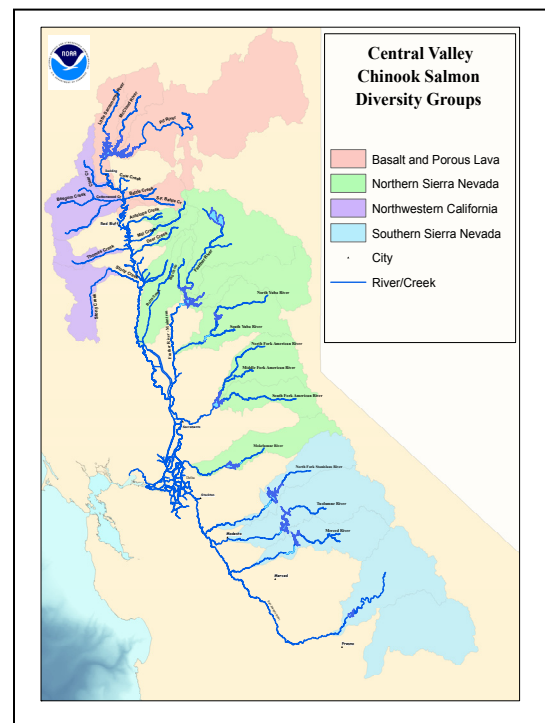
## GEOGRAPHIC DISTRIBUTION

### California's Central Valley Watershed

- 4 Biogeographic Diversity Groups (groups of watersheds)
  - ❑ Basalt and Porous Lava Diversity Group
  - ❑ Northwestern California Diversity Group
  - ❑ Northern Sierra Nevada Diversity Group
  - ❑ Southern Sierra Nevada Diversity Group
- Mainstem Sacramento River
- Mainstem San Joaquin River
- The Sacramento-San Joaquin River Delta
- San Francisco Bay
- The Pacific Ocean

## THREATS TO THE SPECIES

- Large and small dams are fish passage barriers
- Water withdrawals, impaired river flows, and warm water temperatures below dams
- Habitat loss and degradation
- Impaired water quality
- Predation from non-native fish
- Commercial and recreational fishery effects
- Hatchery effects
- Climate change

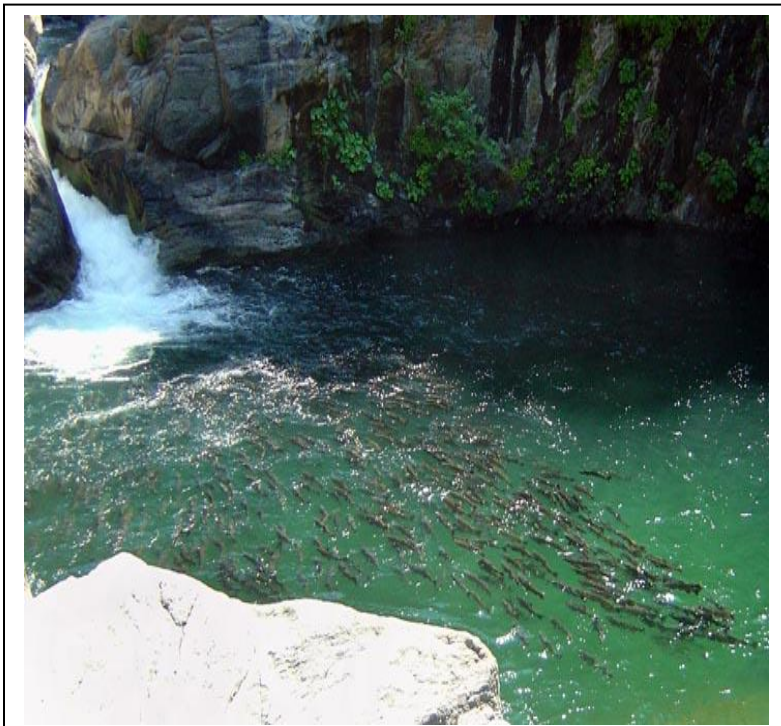
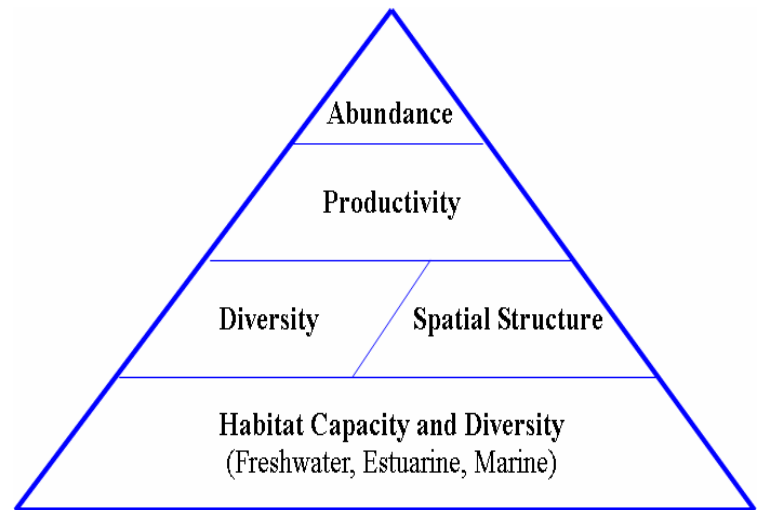






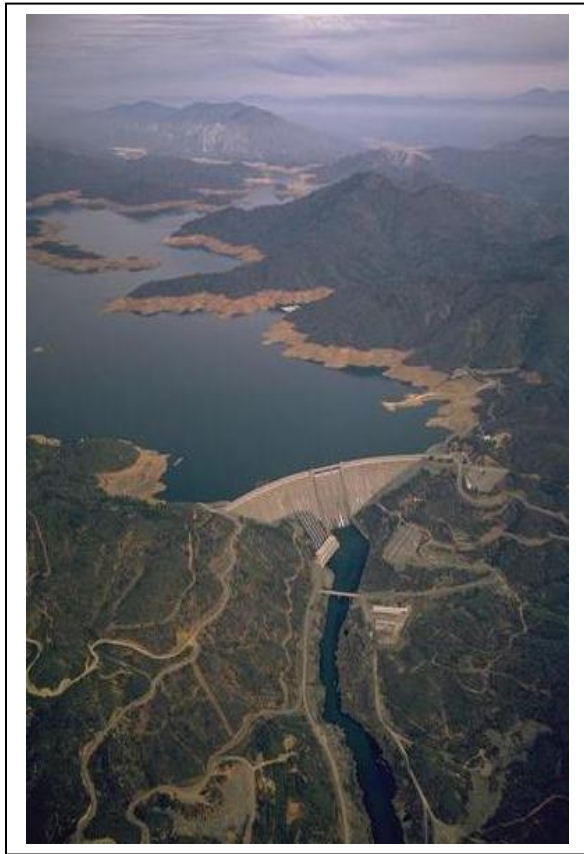
## COMPONENTS OF SPECIES VIABILITY

- Abundance
  - ☐ Large populations are resilient
  - ☐ Small populations are at greater risk
- Productivity
  - ☐ Population growth or decline rate
  - ☐ Important indicator for population trends
- Spatial Structure
  - ☐ Distribution of populations
  - ☐ Greater distribution minimizes risk
- Diversity
  - ☐ Genetic Diversity
  - ☐ Life History Diversity



## RECOVERY STRATEGY

- Prioritize and Secure Existing Populations
  - ☐ Core 1 populations
  - ☐ Core 2 populations
  - ☐ Core 3 populations
- Reintroduction to historic habitats
  - ☐ Primary candidate watersheds
  - ☐ Secondary candidate watersheds
  - ☐ Watersheds not considered as candidates for reintroduction
- Reduce ongoing threats to species and restore interconnected habitats



## RECOVERY OBJECTIVES AND CRITERIA

### Winter-run Chinook salmon

- Three viable populations in the Basalt & Porous Lava Region

### Spring-run Chinook salmon

- 1 viable population in the Northwestern CA Region
- 2 viable populations in Basalt Porous Lava Region
- 3 viable populations in Northern Sierra Region
- 2 viable populations in the Southern Sierra Region

### Steelhead

- 2 viable populations in the Northwestern CA Region
- 2 viable populations in Basalt Porous Lava Region
- 3 viable populations in Northern Sierra Region
- 2 viable populations in the Southern Sierra Region

## KEY ACTIONS FOR RECOVERY

NMFS has identified priority 1 and priority 2 recovery actions. Priority 1 actions address the principle threats to each species. Some priority 1 recovery actions include:

- Develop phased reintroduction plans for primary candidate watersheds
- Restore ecological flows throughout the Sacramento and San Joaquin River basins and the Delta
- Large scale Delta Ecosystem Restoration
- Restore the ecological habitat function and reduce non-native fish predation
- Implement all phases of the Battle Creek Restoration Program
- Implement the San Joaquin Restoration Program
- Create incentives for statewide water conservation
- Changes in commercial fishery management to reduce the harvest of listed salmon and steelhead
- Comprehensive steelhead monitoring

## CONTACTS AND COMMENTS

We value your interest, questions and comments. Please feel free to contact us at:

### **Full Recovery Plan May Be Obtained From:**

National Marine Fisheries Service  
Office of Protected Resources  
Sacramento Basin Office  
650 Capitol Mall, Sacramento, California 95814

Or can be downloaded from the NMFS website:

<http://swr.nmfs.noaa.gov/recovery/centralvalleyplan.htm>

### **Comments May be Submitted To:**

[Centralvalleyplan.swr@noaa.gov](mailto:Centralvalleyplan.swr@noaa.gov)

Or the address listed above

