Draft Central Valley Salmon and Steelhead Recovery Plan

for
Sacramento River winter-run Chinook salmon
Central Valley spring-run Chinook Salmon
Central Valley Steelhead

National Marine Fisheries Service
Southwest Region

November 2009
Themes of the CV Recovery Plan

• This is a long-term plan that will take several decades to fully implement.

• The recovery plan is intended to be a “living document” that is periodically updated to include the best available information regarding the status or needs of the species.

• Implementation will be challenging and will require the help of many stakeholders.

• The plan is intended to have realistic and attainable recovery criteria (i.e., de-listing criteria).
What are Recovery Plans?

• Purpose of the Endangered Species Act: To conserve (recover) listed species and their ecosystems

• Required under section 4(f) of the ESA for all Federally listed species

• Provide the road map to species recovery

• Must contain objective, measurable criteria for delisting a species

• Guidance documents, not regulations
Winter-run Chinook salmon (Endangered)
Status of Species – Winter-run Chinook
Central Valley Spring-run Chinook salmon (Threatened)
Status of Species – Spring-run Chinook

Declining abundance across range: Extinction risk is increasing

Central Valley Spring-run Chinook Salmon
Adult Summer Holding Escapement

Rivers/Creeks
- Sacramento
- Battle
- Clear
- Beegum
- Antelope
- Mill
- Deer
- Big Chico
- Butte
Central Valley steelhead (Threatened)
Key Threats

- **Dams:** Block passage; 95% loss of spawning habitat for Central Valley salmonids
- **Water Diversions:** Juvenile entrainment and flow modifications
- **In-river Predation:** Contributes to low juvenile survival rates
- **Climate:** Recent coastal upwelling conditions, long-term precipitation patterns
- **Habitat Loss and Fragmentation:** Loss of floodplain and riparian habitat
- **Hatcheries:** Hybridization and reduced fitness
- **Fishery Effects:** Ocean harvest of winter-run and spring-run Chinook salmon
- **Water Quality:** Impaired water quality in the lower river systems and the Delta
Recovery Planning

Foundational Principles:

- Apply concepts of VSP
- Technical Recovery Team: Population structure, extinction risk, species viability
- Recovery must address the entire natural ecosystem (freshwater spawning, rearing and migration areas; estuarine habitats, and the Pacific Ocean)
- Viable populations require a network of complex and interconnected habitats, which are created, altered, and maintained by natural physical process
- Recovery strategies must address key threats
Central Valley Diversity Groups

These are ecoregions for spawning populations

- NW California
- Basalt and Porous Lava
- Northern Sierra
- Southern Sierra
Proposed Recovery Strategy

A two-pronged approach

• Secure existing populations (and habitat)
  — Core 1 Populations: Independent populations
  — Core 2 Populations: Dependent populations
  — Core 3 Populations: Small, ephemeral populations

• Reintroduce fish to historic habitats
  — Primary candidate reintroduction areas
  — Secondary candidate reintroduction areas
  — Areas not considered for reintroduction
Core 1 and 2 Populations
- Calaveras steelhead
- Stanislaus steelhead
- Tuolumne steelhead
- Merced steelhead

Priority Areas for Reintroduction
- San Joaquin River spring-run Chinook below Friant
- Conduct feasibility studies and habitat evaluations in other historic watersheds
Multispecies Recovery Actions

- Restore the ecological habitat function and reduce non-native fish predation in the lower Sacramento and San Joaquin River and the Delta
- Provide ecological flows throughout the Sacramento and San Joaquin River basins and the Delta
- Develop phased reintroduction plans for primary candidate watersheds
- Implement all phases of the Battle Creek Restoration Program
- Implement the San Joaquin River Restoration Program
- Reduce the harvest of listed salmon in commercial and recreational ocean fisheries
Southern Sierra Diversity Group

Recovery Actions

• Evaluate fish passage feasibility throughout SJ basin

• Develop and implement instream flow schedules in consideration of physical habitat modeling and life stage requirements
  — Cold water pool management

• Improve lower San Joaquin River habitat conditions:
  — Floodplain availability, contaminant reductions, Stockton Ship Channel

• Implement the San Joaquin River Restoration Program
Proposed Recovery Criteria

DPS/ESU scale

- At least two viable independent populations per diversity group
- One dependent population per diversity group

Population scale

- Viable populations: >2,500 spawning adults & low hatchery influence each year for at least 10 years

Threat abatement criteria

- Specific criteria that address threats and factors affecting the species
Achieving Recovery

NMFS

Agencies

Environmental Factors

Institutional Changes

Stakeholders

Education/Outreach
Next Steps

- 120-day Public Comment Period October 7 – February 3
- Review all comments and revise Recovery Plan accordingly
- Issue Final Recovery Plan 2010

Comments may be submitted:
- Via email - CentralValleyPlan.SWR@noaa.gov
- Via regular mail - National Marine Fisheries Service, 650 Capitol Mall, Suite 8-300, Sacramento, CA 95814