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# 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

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# 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)

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# 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

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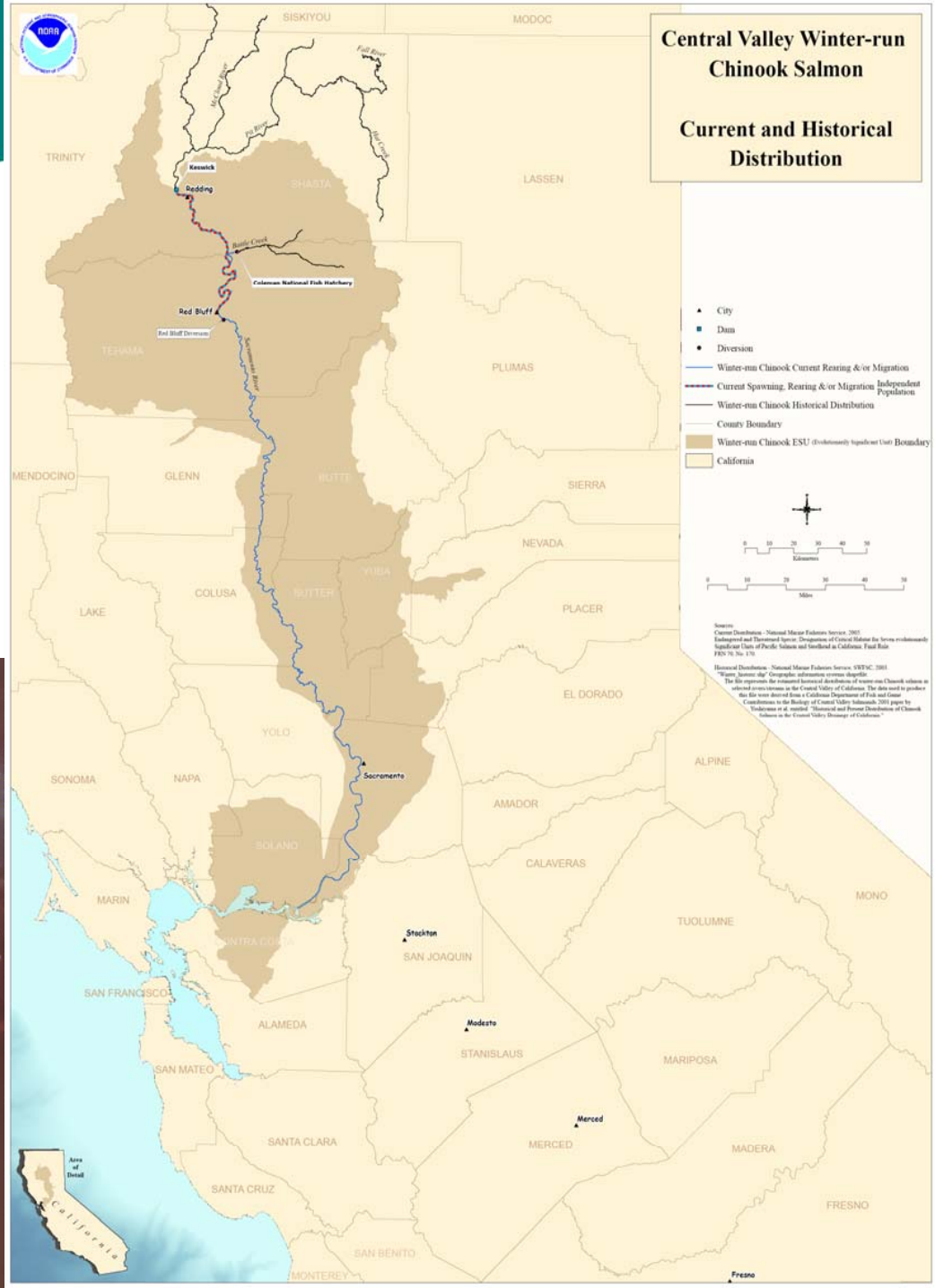
# Winter-run Chinook salmon (Endangered)



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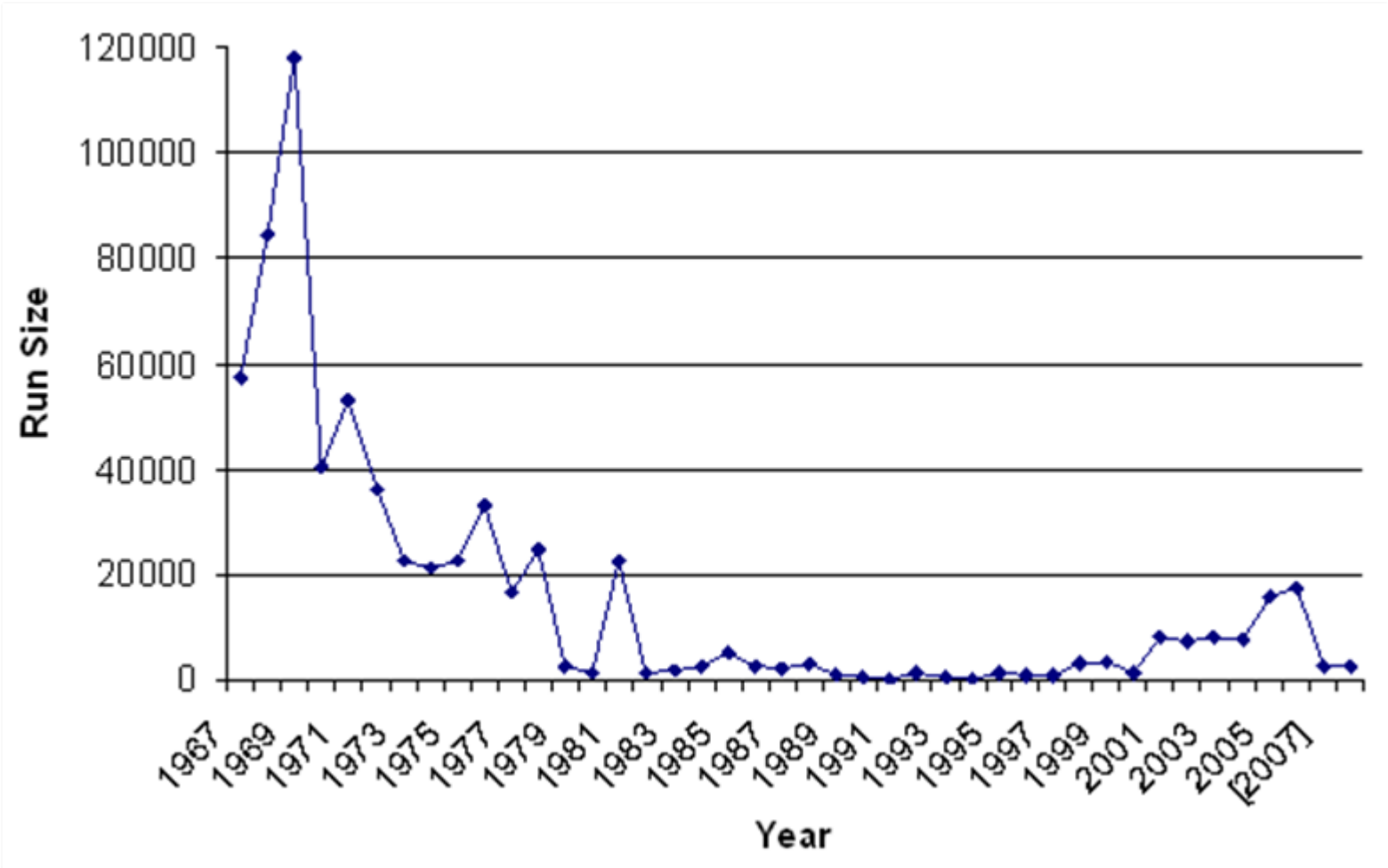
# Status of Species – Winter-run Chinook



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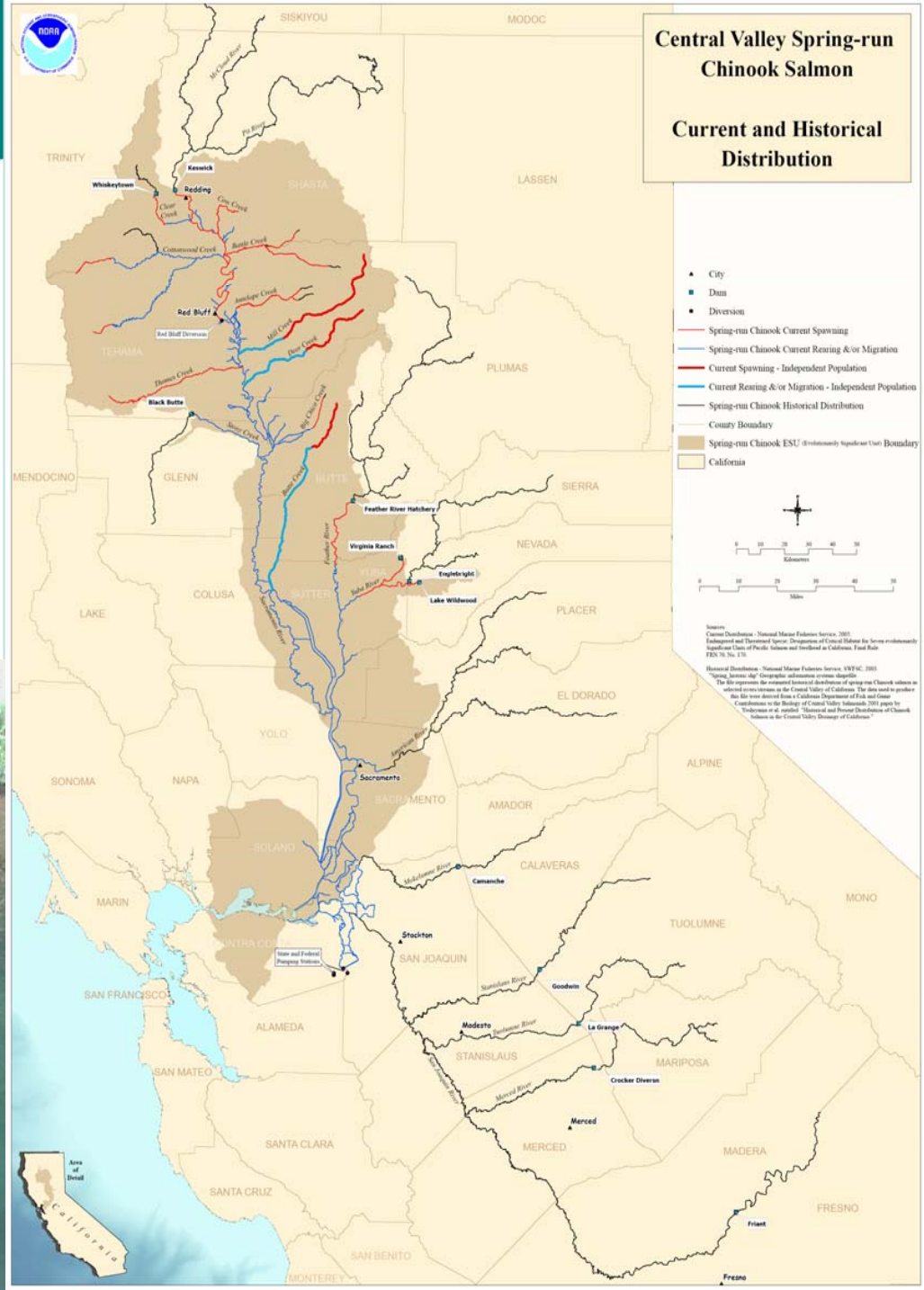
# Central Valley Spring-run Chinook salmon (Threatened)



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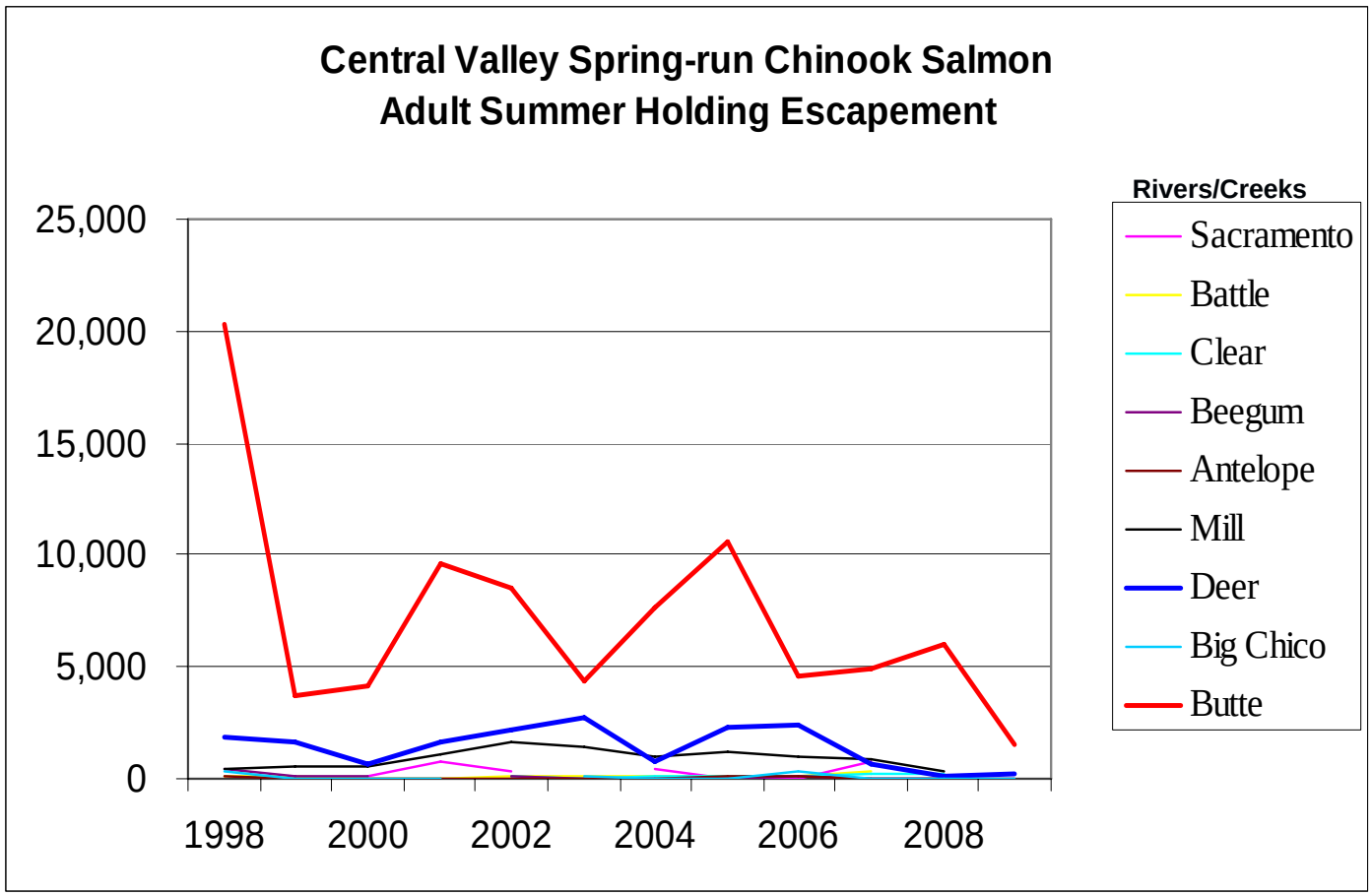
# Status of Species – Spring-run Chinook

***Declining abundance across range: Extinction risk is increasing***



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# Central Valley steelhead (Threatened)

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# 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


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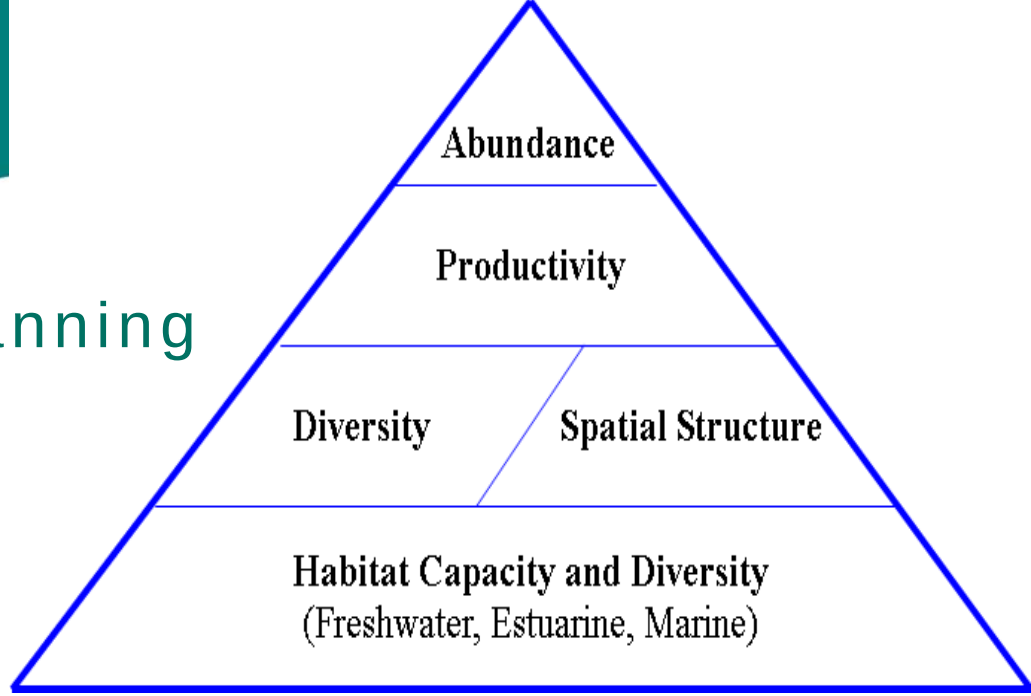
# Recovery Planning




**Viable Salmonid Populations (VSP)**

## 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

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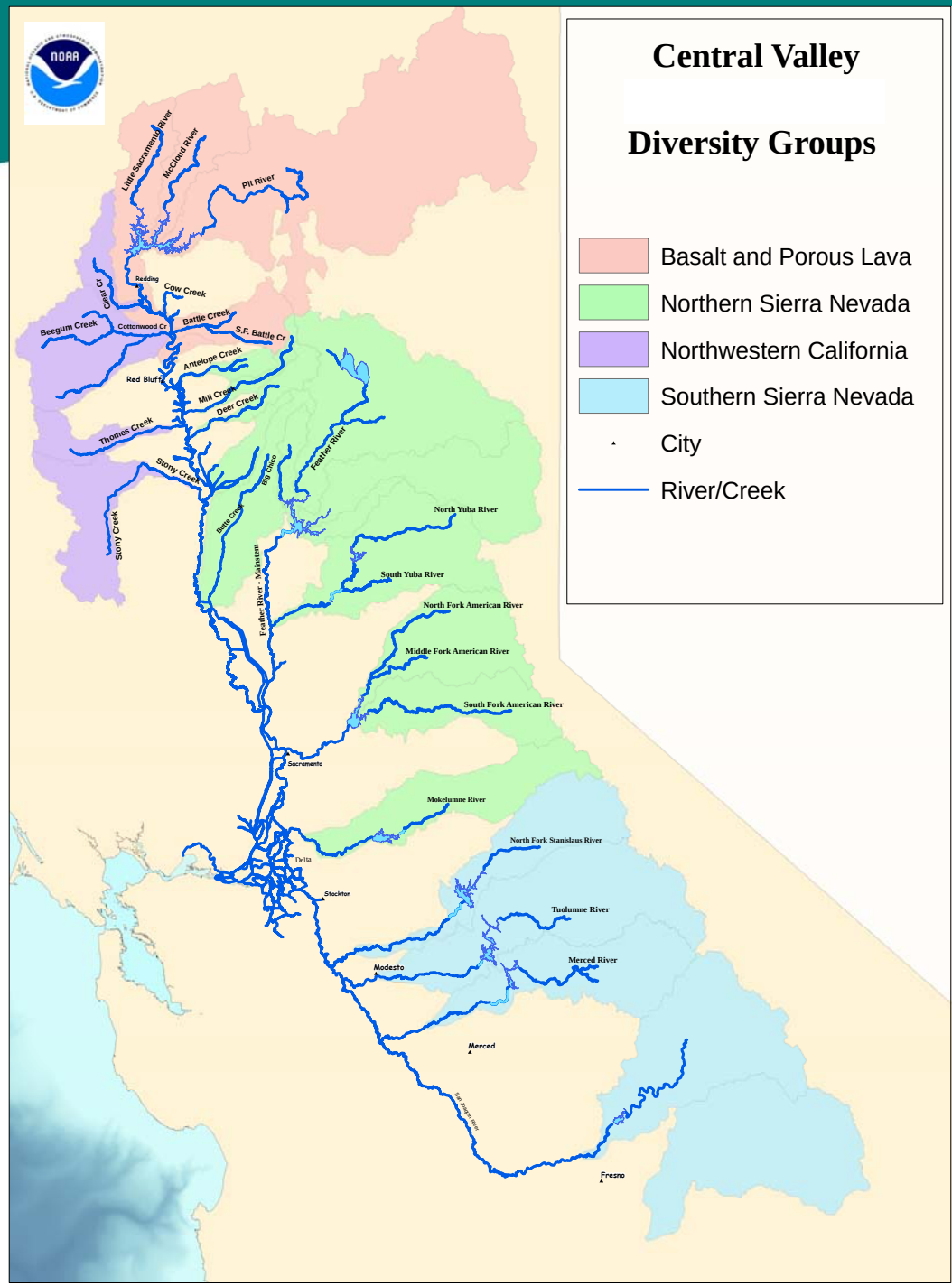
# Central Valley Diversity Groups

These are ecoregions for spawning populations

- **NW California**
- **Basalt and Porous Lava**
- **Northern Sierra**
- **Southern Sierra**



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# 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

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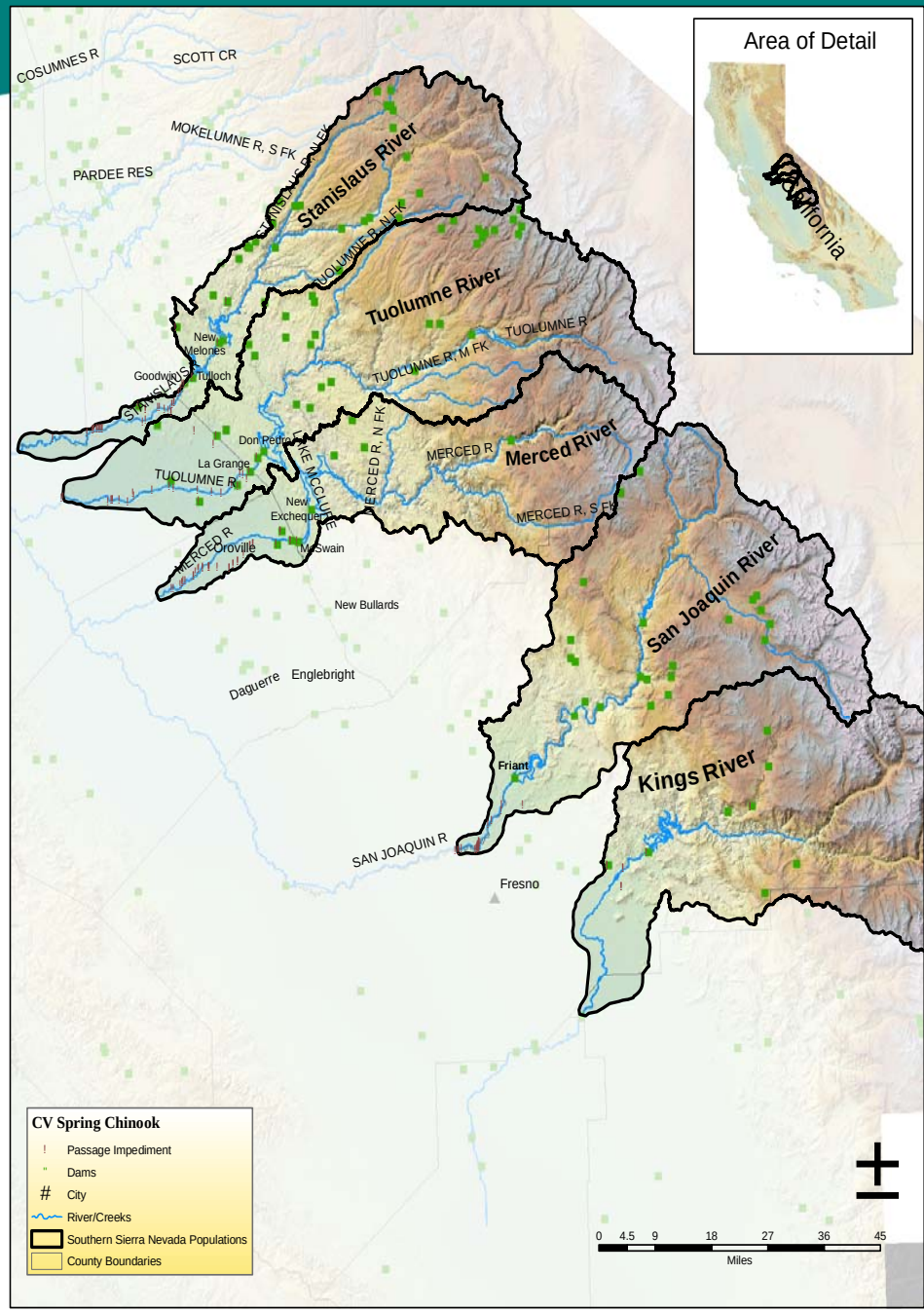
# Southern Sierra Diversity Group

## 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



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# 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

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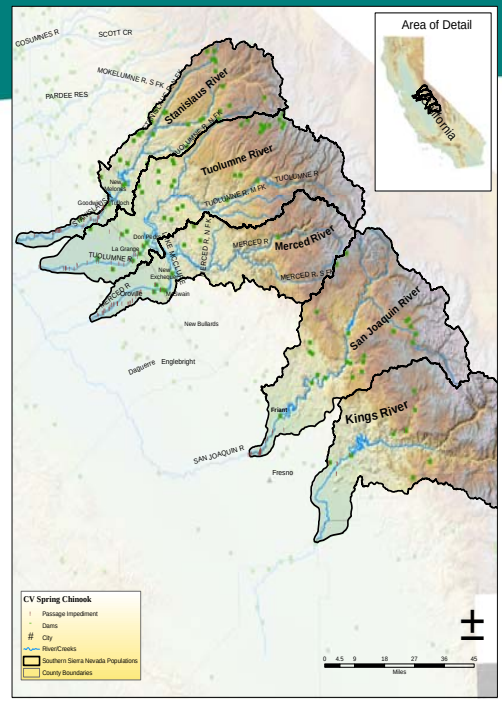
# Southern Sierra Diversity Group




## 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

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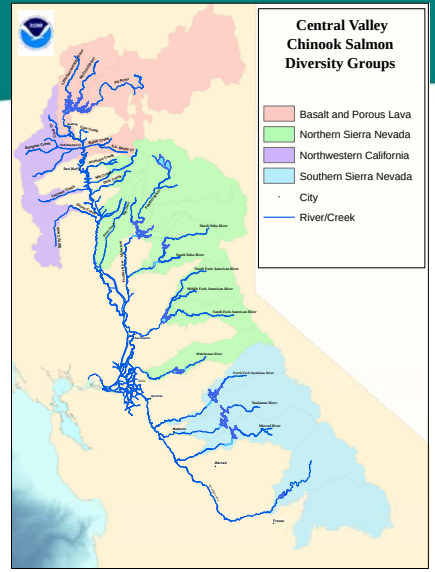
# Proposed Recovery Criteria




## 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

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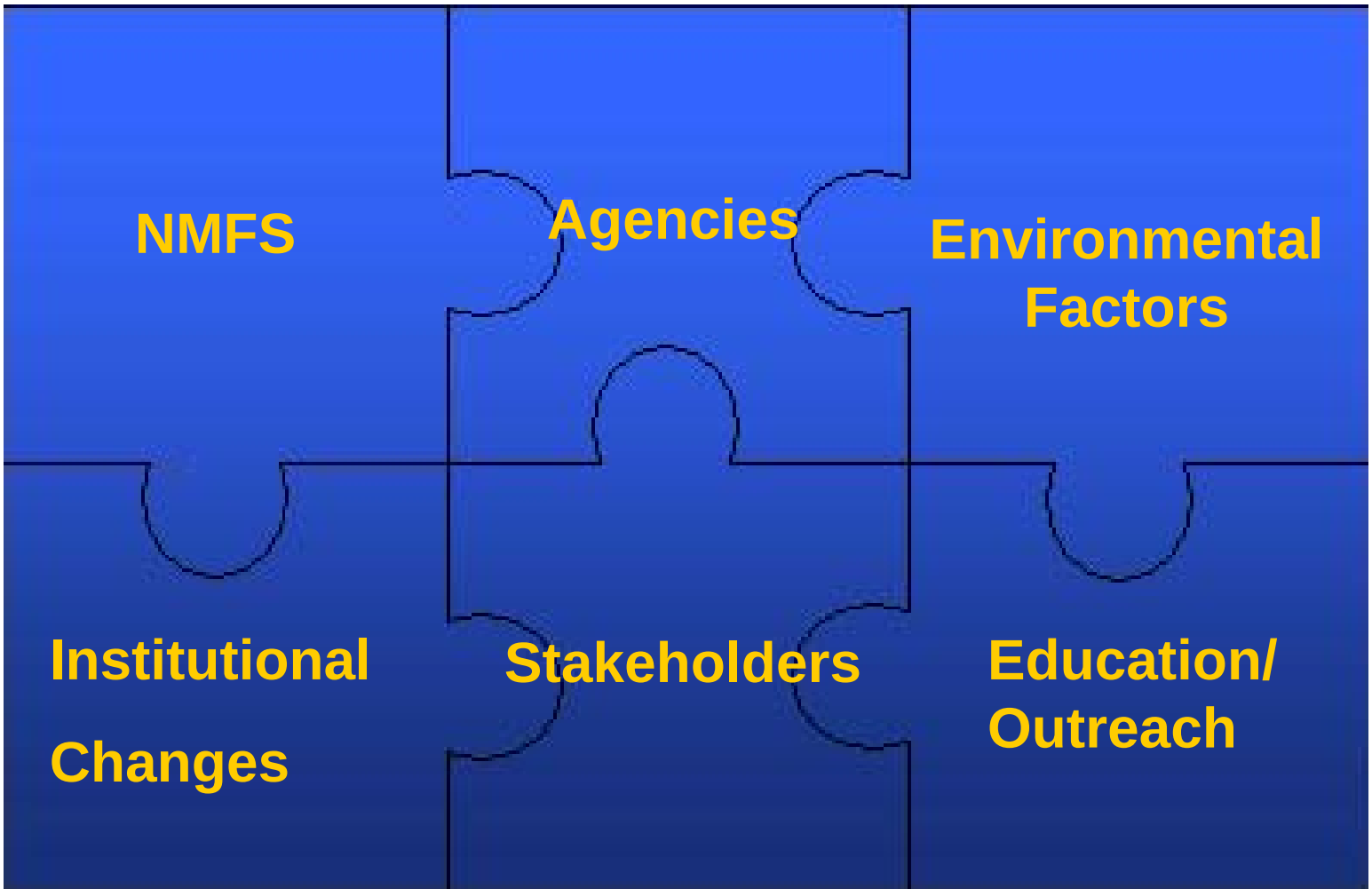
# Achieving Recovery



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# Next Steps

- Draft Recovery Plan available at: http://swr.nmfs.noaa.gov/recovery/centralvalleyplan.htm
- 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