# CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

#### GOALS

1. By 2025, improve species composition in streams by enhancing fish passage and access to habitat in all lake tributaries

2. By 2025, establish priorities and implement plan to increase bank stability in tributary streams

3. By 2025, implement plan and monitor increased native species abundance and distribution over non-native in all tributary streams

4. By 2025, implement plan to increase stream flow/volume during critical summer period (low-flow period

5. By 2025, implement a plan to maintain connection between stream and lake populations during spawning and migration period by reestablishing the historic connectivity regime between lake and streams.



## California State Wildlife Action Plan Update 2015 Sacramento Hydrologic Unit 1802 – Goose Lake

DRAFT STRATEGY: Goose Lake Native Fish Assemblage

The State Wildlife Action Plan examines the health of wildlife and prescribes actions to conserve wildlife and vital habitat before they become more rare and more costly to protect. The plan also promotes wildlife conservation while furthering responsible development and addressing the needs of a growing human population.

#### SENSITIVE SPECIES

Goose Lake redband trout (SGNC)

Goose Lake tui-chub (SGNC)

Goose Lake sucker (SGNC)

Goose Lake lamprey (SGNC)

Northern (Pit) roach (SGNC)

Pit-Klamath brook lamprey

Pit sculpin

Speckled dace













### ENVIRONMENTAL HUMAN RELATED STRESSES IMPACTS Change in average annual Dams & Water Management/Use Introduced Genetic Change in average winter Material Inappropriate Change in runoff and river Livestock, Farming and Ranching Invasive plants/animals Change in water Change in water chemistry Change in water levels and Change in groundwater Change in community structure and composition Habitat fragmentation Change in sediment erosion-deposition regime **Biotic interactions**

temperature

precipitation

flow

temperature

hydroperiod

tables



Dave Lentz Lauren Mullo Mike Harris Paul Divine Janine Phillips TEAM

Organization CDFW-FB CDFW-R2 CDFW-R1 CDFW-R1 CDFW-R2

Team Member Team Member Team Member Team Lead Team Member





#### STRATEGIES, OBJECTIVES AND ACTIVITIES

- 1. Manage dams and other barriers
- a.Objectives
  - i. Increase bypass flows through water conservation
  - ii. Improve fish passage
- **b**.Activities
  - i. Coordinate with private landowners
  - ii.Inventory barriers and assess flow and water condition
  - iii.Obtain funding
  - iv.Obtain permits, conduct environmental review
  - v.Conduct construction activities
- 2. Manage invasive species
  - a.Objectives
    - i. Remove brown trout from Davis and Pine Creek
    - 1.Update data on extent and distribution of native and nonnative species in Davis and Pine Creeks
    - 2. Develop strategy for removal of brown trout from Davis and Pine Creeks
    - 3.Coordinate with USFS and private landowners
    - 4.Obtain permits and conduct environmental review 5.Obtain funding
    - 6.Plan and conduct post treatment monitoring
- 7.Initiate long-term monitoring and management plan 3. Reduce livestock access to streams to reduce impacts
  - a.Objectives
    - i. Provide off-stream watering sources
  - ii.Construct exclusionary fencing along stream segments b.Activities
    - i. Coordinate with ODFW
    - ii.Coordinate with USFS and private landowners on use of alternative watering locations and exclusionary fencing iii.Quantify impact of livestock having access to watercourses
    - iv.Identify watering alternative structures and water sources v.Identify locations to develop off-stream water sources and
    - exclusionary fencing
    - vi.Update Goose Lake Conservation Strategy
- vii.Develop budget, Identify grant sources, obtain funding 4. Develop grazing BMPs
  - a.Objectives
    - i. Reduce grazing impacts to stream(s)/corridor
  - ii.Reduce grazing impacts on riparian habitat
  - **b**.Activities
    - i. Coordinate with USFS, NRCS, RDCs, private landowners
  - ii.Consult with UC Extension
  - iii.Link to education and outreach strategy
  - iv.Review and update BMPs
- 5. Education and Outreach
  - a.Objectives
  - i. Raise public awareness and support **b**.Activities
    - i. Coordinate with USFS
    - ii.Coordinate with Goose Lake Fishes Working Group
  - iii.Develop and implement outreach plan
  - iv.Identify funding sources and apply for grants
  - v.Coordinate with agricultural organizations in area