

California State Wildlife Action Plan Update 2015

Sacramento HUC 1802

DRAFT STRATEGY: Clear Lake Native Fish Assemblage



GOALS

1. By 2025, increase the wetland and riparian extent around Clear Lake by 15-30%
2. By 2025, increase native fish population size by 5% over baseline. (need to establish baseline)
3. By 2025, increase (by 10%) the composition rate (ratio) of tule perch, prickly sculpin, and Clear Lake hitch in relation to the non-native fish community.
4. By 2025, increase the water flow in Adobe, Scotts, Middle, and Kelsey Cole creeks during spring/early summer so that native species could migrate.
5. By 2025, increase the water flow of Adobe, Scotts, Middle, Kelsey, Cole creeks in Lake Co. during spring and early summer season so that native fish species could better migrate in these creeks. (HUC 1802 Conservation Unit.)
6. By 2025, increase the water quality in Clear Lake by reducing the sediment erosion in lake tributaries.
7. By 2025, restore stream bed functions in all major lake tributaries to their natural level.
8. By 2025, increase spring and early summer flows in all tributary streams

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.

STRATEGIES, OBJECTIVES AND ACTIVITIES

1. Provide Education and Outreach
 - a. Objectives
 - i. Educate public on need for water management BMPs
 - ii. Keep public informed on development/status of water management BMPs
 - iii. Educate public on impacts associated with their activities
 - iv. Educate public on impacts to native species by introducing invasive species
 - b. Activities
 - i. Identify and partner with stakeholder groups to develop message for E/O
 - ii. Identify objectives/goals for E/O Strategy
 - iii. Develop Key messages
 - iv. Identify Target audience
 - v. Develop budget
 - vi. Obtain funding for implementation and staff
 - vii. Develop performance measures
2. Establish Collaborate Partnership
 - a. Objectives
 - i. Understand the stakeholders' diverse needs and how to meet their needs while meeting BMP criteria.
 - ii. Develop trust among agencies and other stakeholders
 - b. Activities
 - i. Identify partner working group
 - ii. Agree upon scope for collaboration
 - iii. Develop agreement between partners to work together on BMPs
 - iv. Obtain funding for implementation and staff
3. Best Management Practices Development
 - a. Objectives
 - i. Increase spring/summer flows for improved lake and fish health
 - ii. Improve fish passage
 - iii. Develop BMPs for water diversions
 - b. Activities
 - i. Identify partner working group
 - ii. Develop agreement between partners to work together on BMPs
 - iii. Look for existing management plans and evaluate their scope and success
 - iv. Agree upon scope for management plan
 - v. Obtain funding for implementation and staff
 - vi. Link to E/O plan to keep public informed
 - vii. Develop options for optimal timing of diversions
 - viii. Develop options for maintaining fish passage around diversion barriers
 - ix. Identify water conservation actions
 - x. Develop and implement BMPs

SENSITIVE SPECIES

Clear Lake hitch

Sacramento perch

Clear Lake tule perch

Pacific brook lamprey

Prickly sculpin

Sacramento blackfish

Sacramento pike minnow

California roach

Sacramento sucker

Three-spine stickleback

Rainbow trout



Clear Lake hitch, photograph courtesy of Rick Macedo



Ancipitrus - native Sacramento perch



Tule perch



Pacific lamprey



Sacramento pikeminnow



Three-spine stickleback

ENVIRONMENTAL STRESSES

Changes in air temperature

Changes in precipitation

Changes in sediment erosion-deposition regime

Changes in runoff and river flow

Changes in water chemistry

Changes in water levels and hydroperiod

Change in water nutrients

Change in water pollutants

Change in spatial extent of target

Change in community structure or composition

Change in biotic interactions (altered community dynamics)

Habitat fragmentation

HUMAN RELATED IMPACTS

Invasive plants/animals

Annual and Perennial Non-Timber Crops

Mining & Quarrying

Recreational Activities

Dams & Water Management/Use



Rainbow trout, introduced genetic material



TEAM

Name	Organization	Role
Dave Lentz	CDFW-FB	Team Member
Ben Ewing	CDFW-R2	Team Member
Rick Macedo	CDFW-R1	Team Member
Mike Harris	CDFW-R2	Team Member
Paul Divine	CDFW-R1	Team Member
Lauren Mulloy	CDFW-R2	Team Member
Jeanine Phillips	CDFW-R2	Team Lead

