



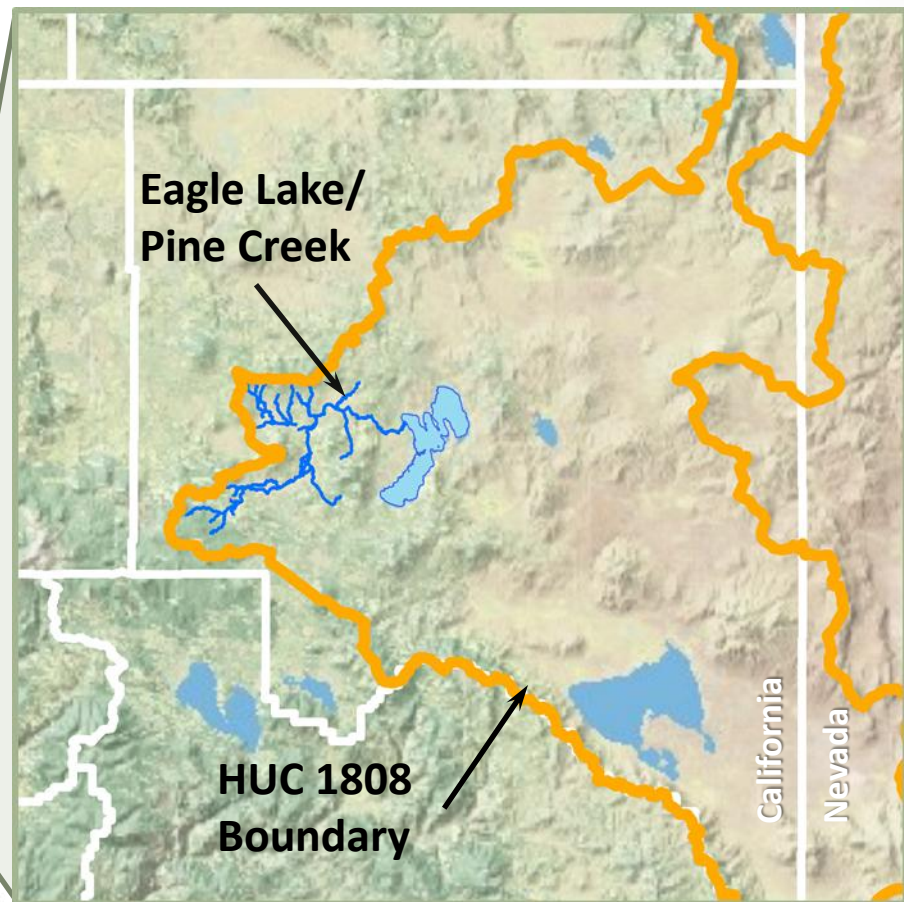
State Wildlife Action Plan 2015 Update

North Lahontan Hydrologic Unit
Eagle Lake Native Fish Assemblage

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North Lahontan HUC 1808, Eagle Lake & Pine Creek Watersheds

- In California, the North Lahontan Hydrologic Unit is located in Lassen and eastern Modoc counties
- The target for this HUC is the native fish assemblage of the Eagle Lake and Pine Creek watersheds in Lassen County



Eagle Lake & Pine Creek Watersheds

General habitat:

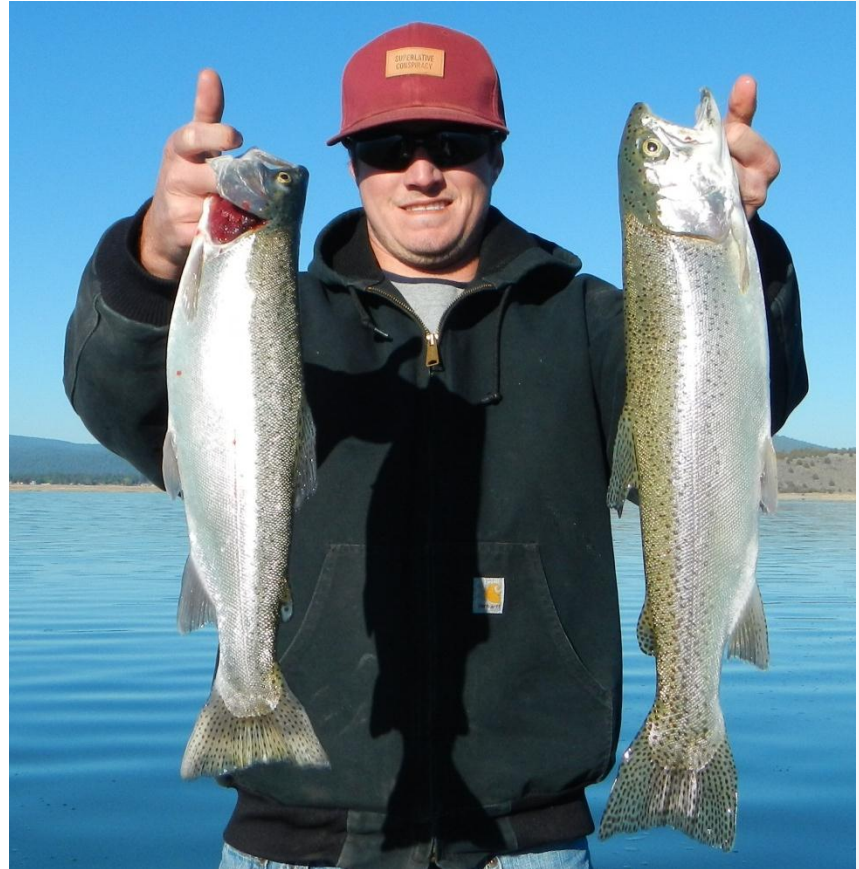
- Lake habitat
 - Large, shallow, alkaline water having high pH and warm summer water temperatures
 - Closed basin
- Stream habitat
 - Majority is intermittent
 - Only perennial stream is in the headwaters of Pine Creek
 - Low gradient stream, traversing pine forest and sage flats
 - Spring fed with cold fresh water



About the Target

Eagle Lake Native Fish Assemblage

- Two endemic species unique to the Eagle Lake Basin
- Occupies all lake habitat (at least during portions of the year)
- Occupies stream habitat at very low densities
- Resilient to adverse water conditions
- Why was this target chosen? Inclusion of the Eagle Lake Fish Assemblage into SWAP will complement long standing conservation efforts and provide support to other conservations strategies currently being drafted.



Species of Concern

- Why these species were chosen:
 - Endemic species
 - Both are California Species of Special Concern
 - Eagle Lake rainbow trout is currently under review for Federal listing as Threatened or Endangered



Eagle Lake rainbow trout



Eagle Lake tui chub

Species of Concern (cont.)

- Other fish species of the Eagle Lake watershed
 - Tahoe sucker
 - Speckled dace
 - Lahontan resides



Environmental Stresses

- Limited water supply
 - Little surface water
 - Intermittent/seasonal streams
 - Prolonged droughts
- Invasive fish species
 - Competition and predation by brook trout



Human-caused Impacts

- Alterations to stream channel
 - Fish migration barriers
 - Lack of sufficient natural spawning
 - Road crossings, ditches, and stock ponds
- Impacts from past and present land management resulting in:
 - Stream bank erosion
 - Sedimentation
 - Loss of riparian habitat



Strategies

- Reduce livestock impacts to streams and riparian zones
 - Exclusionary fencing around stream segments
 - Provide off-stream water for livestock
 - Stream channel restoration
 - Improve management practices
- Water Conservation
 - Ground water assessment
 - Develop alternate water sources for existing needs
 - Remove stream uses
 - Improve stream flow



Strategies (cont.)

- Manage fish passage barriers
 - Remove existing barriers
 - Develop management plan for the Pine Creek egg station
- Manage non-native fish species
 - Develop plan for removal of brook trout
 - Remove brook trout
 - Reestablish native fish community in Pine Creek



Funding

Potential funding that has either been used in the past, is currently being used, or has been identified as potential funding source:

- California Fisheries Preservation Fund
- USFWS, Sport Fish Restoration Act
- USFWS, Tribal Grant
- USFWS, State Wildlife Grant
- National Fish and Wildlife Foundation
- Lassen County Resource Advisory Committee (USDA)
- Desert Fish Habitat Partnership
- DWR, Integrated Regional Watershed Management Grant

Funding for various projects is also being sought or has been received by many of our Partners, such as USFS- Eagle Lake Ranger District, Susanville Indian Rancheria, Trout Unlimited, UC Davis, Lassen Lands and Trails Trust, Honey Lake Valley Resource Conservation District

Thank you.

