California State Wildlife Action Plan Update 2015

Mojave Desert Watershed, HUC 1809-1810

DRAFT STRATEGY: Springs and Springbrooks

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.

GOALS

1. By 2025, evaluate the effect of one management fire on vegetative community structure on spring brooks.

2. By 2025, keep springs separated from other aquatic habitats if they are naturally isolated.

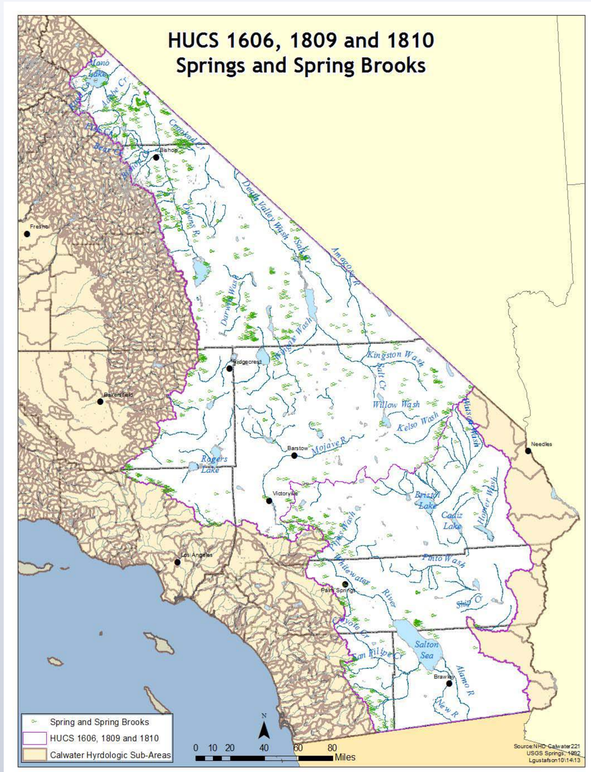
3. By 2025, protect all perennial springs in each HUC to the insure surface flowing water is maintained

4. By 2025, establish long term protection for at least one spring or spring brook in each HUC through easement or acquisition.

5. By 2025, Restore at least one spring or spring brook in each HUC. (e.g. species reintroductions into suitable habitats, and rewatering)

6. By 2025, restore native species assemblages, and reduce invasive species on at least one spring or spring brook in each HUC.

7. By 2025, secure one or more new agreements per HUC to protect vulnerable aquifers from overexploitation to insure that continuous surface water flows are not interrupted.



AT RISK SPECIES

Amargosa speckled dace
Amargosa pupfish
arroyo toad
black toad
Cottonball Marsh pupfish
desert pupfish
desert slender salamander
Long Valley speckled dace
Mohave tui chub
Owens pupfish
Owens tui chub
Owens speckled dace
Owens sucker
Salt Creek pupfish
Shoshone pupfish
Saratoga Springs pupfish
toikona tui chub
southwestern pond turtle


Owens pupfish


Owens speckled dace

Mohave tui chub


southwestern pond turtle © 2003 Pierre Fidenci


toikona tui chub


arroyo toad © 2004 Chris Brown, USGS


Owens tui chub

ENVIRONMENTAL STRESSES

Changes in area and extent of community

Changes in community structure and composition

Connectivity/habitat fragmentation

Changes in natural fire regime

Surface water flow regime

Change in groundwater tables

Changes in annual average precipitation


bull thistle. Photo courtesy of Bob Case


wind energy


Incompatible grazing practices


recreational activities

HUMAN RELATED IMPACTS

Invasive plants/animals

Dams & incompatible water management

Problematic native species

Groundwater overdraft

Hybridization with introduced forms

Renewable energy development

Incompatible grazing practices

Incompatible recreational activities

Aquaculture

Commercial & industrial development

TEAM


Tui chub habitat on private ranch land.

Name	Organization	Role
David Vigil	CDFW-R6	Team Member
Junko Hoshi	CDFW-HCPB	Team Member
Steve Parmenter	CDFW-R6	Team Member
Judy Hohman	USFWS	Team Member
Dawne Emery	CDFW-R6	Team Member
Glenn Yoshioka	CDFW-FB	Team Member
Mike Giusti	CDFW-R6	Leader/Manager;


Amargosa pupfish habitat in BLM's Grimshaw Lake ACEC

STRATEGIES, OBJECTIVES AND ACTIVITIES

1. Manage invasive species to expand range of native fishes
   a. Objectives
      i. Selectively remove or control invasive species within the HUCs
   b. Activities
      i. Collect and update data on abundance, distribution, and threats to native aquatic fauna
      ii. Coordinate and partner with public and private landowners
      iii. Apply for and obtain funding
      iv. Develop a management and control plan for invasive species
      v. Initiate long-term monitoring
2. Translocation or reintroduction of species
   a. Objectives
      i. Establish self-sustaining and genetically viable native fish populations
   b. Activities
      i. Identify source populations
      ii. Collect/analyze genetic data to define priorities
      iii. Remove invasive or problematic species from historic native fish habitat
      iv. Create georeferenced map/data base for native fish habitats
      v. Develop basin plan for native fish management
      vi. Obtain funding for strategy implementation
      vii. Coordinate management actions with natural resource agencies, NGOs and private landowners
3. Establish and develop co-management partnership(s)
   a. Objectives
      i. Establish joint partnership to improve dam and/or water management and use
      ii. Establish joint partnership to control invasive species
      iii. Establish joint partnership to manage renewable energy project impacts and mitigation
   b. Activities
      i. Develop interagency cooperation agreement/plan
      ii. Develop user group cooperation/coordination agreement/plan
      iii. Coordinate with related industry/business interests
      iv. Identify management/conservation partners
      v. Obtain funding for strategy development
4. Improve management of dams and other barriers
   a. Objectives
      i. Where appropriate, dams and barriers are modified or maintained to prevent invasion and/or genetic mixing with nonnative fishes
   b. Activities
      i. Identify and prioritize barriers for retrofit
      ii. Identify and prioritize key areas for fish passage
      iii. Conduct viability study of barrier designs to determine optimal design
      iv. Develop manmade barrier maintenance protocol
      v. Obtain funding to implement strategy
5. Provide input on local planning
   a. Objectives
      i. Protect spring habitats and conserve flows through participation in the planning and decision making processes
6. Data gathering and analysis
   a. Objectives
      i. Identify impacts of dams, water management and water use to the spring systems and species
7. Provide Outreach and education
   a. Objectives
      i. Improved public awareness, concern and participation in resource conservation