# California State Wildlife Action Plan Update 2015

Central Lahonton HUC 1605 - Carson River Basin

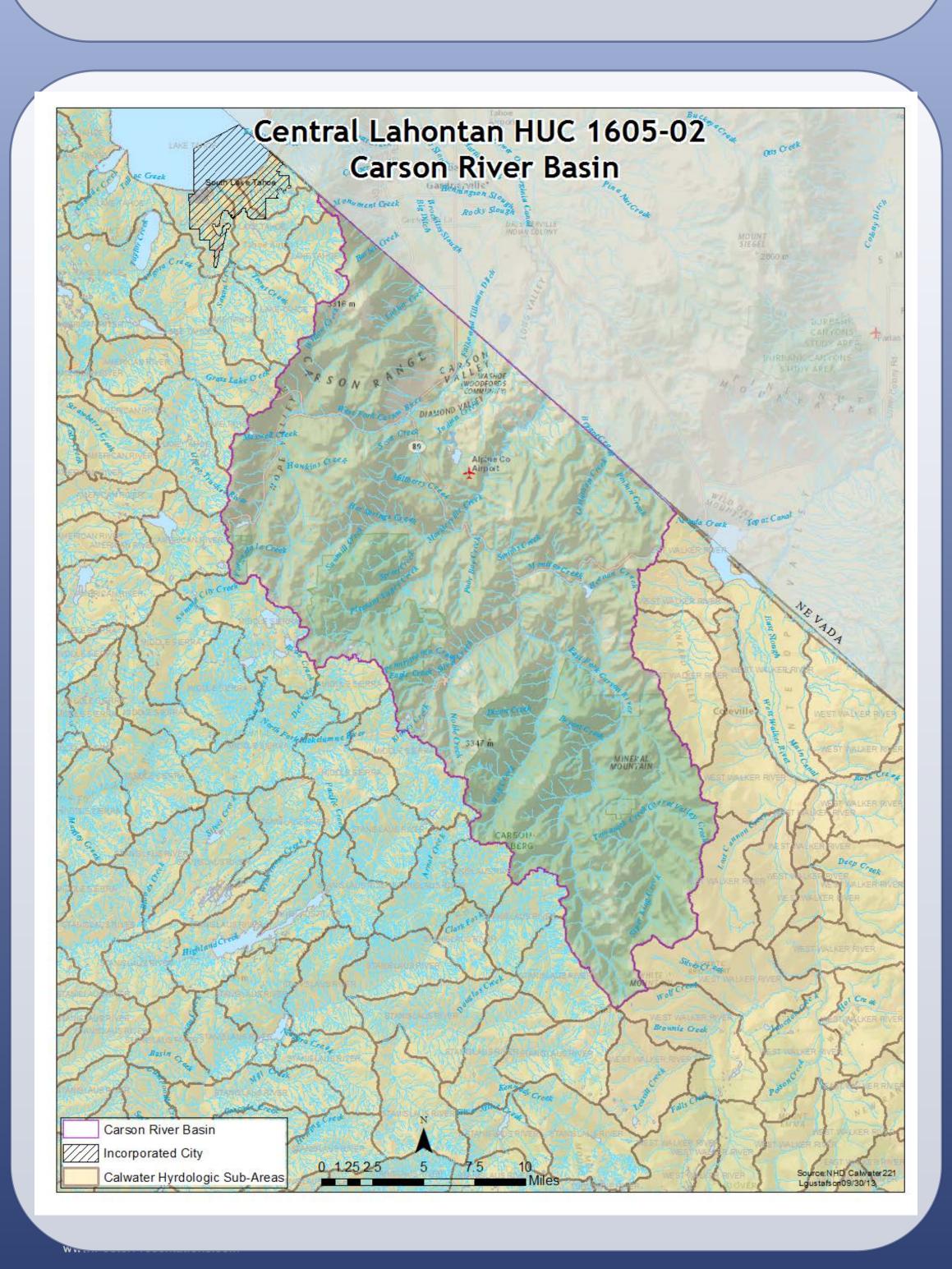
## DRAFT STRATEGY: Carson River Basin Native Fish Assemblage



#### GOALS

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE

- 1. By 2025 increase the stream flow in the Carson River during summer and fall.
- 2. By 2025, improve water quality by reducing toxic effluents from Leviathan mine.
- 3. By 2025, restore 10% of erosion hotspots in Carson River watershed cooperatively with USFS
- 4. By 2025, the area occupied by assemblage of native fishes is increased by 10% in the Carson R HUC.
- 5. By 2025, the presence of all life stages of the populations has been increased by 10% to ensure their sustainability
- 6. By 2035, barriers which restrict access to suitable habitat and aid in fragmentation of native species population will be identified and solutions developed to remove the barriers or provide access around 5% of the barriers.
- 7. By 2025, design and implement plan to Improve habitat quality for downstream fish.



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**

Paiute cutthroat trout

Lahontan cutthroat trout

Mountain sucker

Mountain whitefish

Paiute sculpin

Lahontan creek tui chub

Lahontan redside

Lahontan speckled dace

Tahoe sucker

Western Pearlshell Mussel

#### ENVIRONMENTAL STRESSES

Change in annual average temperatures

Change in summer average temperature

Change in snow pack

Change in snow cover period

Changes in sediment erosion/deposition regime

Changes in natural fire regime

Changes extreme events

Changes in nutrients



Altered spatial distribution of habitat types

> Changes in community structure or composition

Loss or change in biotic interactions (altered community dynamics)



Mountain sucker

Volcanoes

Avalanches/Landslides

Habitat fragmentation

Pollutants (water)

# HUMAN RELATED



Housing and urban

**IMPACTS** 

Illegal fishing & harvesting aquatic resources



Invasive plants/animals

Dams & water management/use

Introduced genetic material







### STRATEGIES, OBJECTIVES AND **ACTIVITIES**

1. Reintroduce cut-throat trout LCT and PCT

a. Objectives

i. Reestablish native fisheries in historic range

b. Activities

i. Conduct feasibility analysis to identify target streams ii.Identify source population or propagate

iii.Evaluate eradication methods for non-native species

iv. Develop reintroduction plan including post treatment

v.Coordinate with agencies and NGOs

vi.Conduct environmental review, obtain permits

vii.Obtain funding for implementation and staff

2. Effective Law Enforcement

a. Objectives

i. Compliance with water rights and 1600 agreements

ii.Reduced illegal diversions

iii.Increase LED staffing levels

iv.Reduced illegal fishing

v.Reduced introduction of invasive species

b. Activities

i. Coordinate with LED, USFS, SO

ii. Advocate for opportunities to improve prosecutions of environmental laws

iii.Identify partners to improve enforcement capabilities

iv. Evaluate and increase LED staffing levels

v.Obtain funding for implementation and staff

3. Restore native species

a. Objectives

i. Remove non-native trout species from select streams tributary to Carson and East Carson

ii.Prevent future contamination by invasive species

iii.Restore native fish to target streams

b. Activities

i. Update data on extent and distribution of native and nonnative species in Carson Basin

ii.Non-native trout Removal strategy from selected waters developed

iii.Coordinate with USFS, BLM, County and private landowners

iv. Obtain required permits and conduct environmental review

v.Obtain funding for implementation and staff

vi.Conduct mechanical and/or chemical treatments

vii.Post treatment monitoring

viii.Develop reintroduction and genetic management plan for native species

ix.Initiate long-term monitoring and implement management plan

x.Link to Education and Outreach strategy

4. Develop basin management plan

a. Objectives

i. Develop basinwide fisheries management plan

b. Activities

i. Coordinate with USFS, BLM, Alpine County

ii.Coordinate with Fisheries Branch

iii.Obtain funding for implementation and staff

iv.Facilitate regional sub-committee to develop plan

v.Collect and compile data vi.Conduct stakeholder meetings

vii.Implement trout management plan



### **TEAM**

Organization Team Member CDFW-R2 Team Leader CDFW-R2 Team Member CDFW-R2 Team Member CDFW-R2 Team Member Ken Kundargi CDFW-R2 Team Member CDFW-R2 Team Member Laurie Hatton

