



State Wildlife Action Plan 2015 Update

Carson River Drainage Native Fish Assemblage

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Carson River Basin



- Located south-east of Lake Tahoe
- Eastern Sierra Nevada Ecoregion
- Drains into Lahontan Basin
- Vegetation types from alpine to Great Basin
- High mountain lakes, streams, rivers

Target: Native Fish Assemblage

- Dominant aquatic animals in aquatic systems
- Ten species of native fishes
- Lahontan and Paiute cutthroat trout
- Other native fishes widely distributed
- Develop Monitoring Plan - still to do

Species of Greatest Conservation Needs Associated with Target

Paiute cutthroat trout *Oncorhynchus clarkii seleniris*
federally listed - Threatened



SGCNs Associated with Target (Cont.)

Lahontan cutthroat trout *Oncorhynchus clarkii henshawi*
federally listed - Threatened



SGCNs Associated with Target (Cont.)

Mountain sucker

Catostomus platyrhynchus

CDFW - SSC



SGCNs Associated with Target (Cont.)

Mountain whitefish

Prosopium williamsoni

CDFW - SSC



Other Fish in Assemblage

- **Paiute sculpin** *Cottus beldingi*
- **Lahontan creek tui chub** *Siphateles bicolor obesa*
- **Lahontan redbside** *Richardsonius egregius*
- **Lahontan speckled dace** *Rhinichthys osculus*
- **Tahoe sucker** *Catostomus tahoensis*

Stresses

- Change in community structure or composition
- Change in spatial extent of fish community
- Change in biotic interactions
- Habitat fragmentation

Threats

- Invasive plants and animals
- Introduced genetic material
- Dams and water management
- Illegal fishing and harvesting resources
- Housing and urban areas

Strategies

Improve Hydrologic Conditions

Objectives:

- Allow fish passage
- Increase bypass flows through water conservation

Actions:

- Obtain funding for implementation and staffing
- Coordinate with agencies and private landowners
- Inventory barriers and assess flow and water condition
- Develop plan for prioritization and construction

Strategies (Cont.)

Fisheries Restoration Planning

Objectives:

- Develop basin-wide fisheries management plan
- Forecast susceptibility of Carson Basin to invasive species
- Educate public on native fish and risks of invasive species
- Gain better understanding of SGCN distribution and abundance
- Remove non-native trout species from select streams in basin
- Restore native fish to target streams

Actions:

- Obtain funding for plan development and implementation
- Coordinate with federal agencies and Alpine County
- Develop outreach and plan
- Update data on extent and distribution of native fishes
- Obtain required permits and conduct plan
- Develop strategy for removal of non-natives
- Implement trout management plan