

# **Truckee River Ecosystem Restoration Project**

(A major component of the Truckee River Flood Project)

**Why is the Truckee River Important?** Only five major rivers exist in Nevada, bringing life to the most arid state in the nation. The Truckee River provides the water source for most of the Reno–Sparks area while supporting a wide variety of species including the threatened Lahontan Cutthroat Trout and the endangered Cui-ui fish, the cultural center of the Pyramid Lake Paiute Tribe. The Truckee River represents one of the most unique ecosystems in Nevada, connecting Lake Tahoe and Pyramid Lake - both environmental treasures in their own right.

**The Problem:** Over the last 150 years, more than 30 dams and water supply diversion structures were constructed along the Truckee River. In the 1950's and 60's, the bed of the Truckee River was blasted, dredged and straightened in an effort to reduce flooding upstream in the Truckee Meadows. Together, these activities wreaked havoc on the river's ecosystem, significantly reducing the native vegetation which had lined the riverbanks, lowering water levels, eliminating critical habitat, and impeding fish spawning in the river. Today, approximately 90% of the riparian forest that existed along the river at the beginning of the 20th century has been lost, along with 70% of the hundreds of species of nesting birds that were once common along the river.



## **Current Situation**

- Altered channel
- Gravel beds with little vegetation
- Unstable banks
- Lowered groundwater
- Lost habitat and species
- Impaired water quality

## **Ecosystem Restoration Project Goals:**

- Restore 50 miles of the Truckee River's ecosystem (Sparks to Pyramid Lake)
- Restore fisheries, including the threatened Lahontan Cutthroat Trout and endangered Cui-ui
- Enhance deer, mountain lion, duck, and song-bird habitat
- Enhance water quality
- Provide enhanced recreation opportunities, river access, and open-space

## **Primary Project Partners:**

Washoe County  
City of Reno  
Army Corps of Engineers  
Pyramid Lake Paiute Tribe

Storey County  
City of Sparks  
US Fish & Wildlife Service  
Reno-Sparks Indian Colony

University of Nevada- Reno  
Reno-Tahoe Airport Authority  
US Bureau of Land Mgmt  
The Nature Conservancy

## **Primary Project Components:**

- Obtain land along Truckee River corridor and re-establish sinuous river bed. Putting the curves back will slow water flow, thus raising water levels and allowing vegetation to re-establish. It will also reduce turbidity, improving water quality, and stabilize banks to better withstand floods.
- Plant cottonwoods and riparian vegetation to jump start re-vegetation. Vegetation will provide shade, cooling the water for fish, and providing resting and spawning zones.
- Construct fish ladders at Marble Bluff, Numana and Derby Dams. Remove diversion dams which now block fish passage, and create “fish holes” to assist with spawning.
- Provide a dedicated instream flow for the river by re-titling water rights, thus ensuring flow during low rainfall seasons and diluting treated water to improve water quality.  
(Note: This project component is being implemented as part of the Truckee River Operating Agreement, and while not funded through the flood project, is a key element to success of the restoration).

**Estimated Restoration Cost and Timeframe:** \$140 Million over 10 years; start in 2008

## **Rationale for State of Nevada Contribution:**

- Truckee River represents a unique ecosystem connecting Lake Tahoe and Pyramid Lake. Nearly 90% of the river’s wetlands and vegetation have been lost, along with nearly 70% of the 100’s of species of nesting birds once common there.
- Restoration efforts at Lake Tahoe, Lower Colorado River and Las Vegas Wash provide precedent for state participation in protecting Nevada’s unique ecosystems.
- The Army Corps of Engineers has identified a national interest in the project, demonstrating significant benefits relative to costs.
- Project will address longstanding concerns of Pyramid Lake Paiute Tribe, helping to restore the native endangered Cui-ui fishery as well as the threatened Lahontan Cutthroat Trout.
- State of Nevada owns the bed and banks of river - all riparian land owners are participating

## **Pilot Project – Restoration of McCarran Ranch**



**BEFORE:** Just after wetland creation (Dec 2003)



**AFTER:** 20 months later (August 2005)