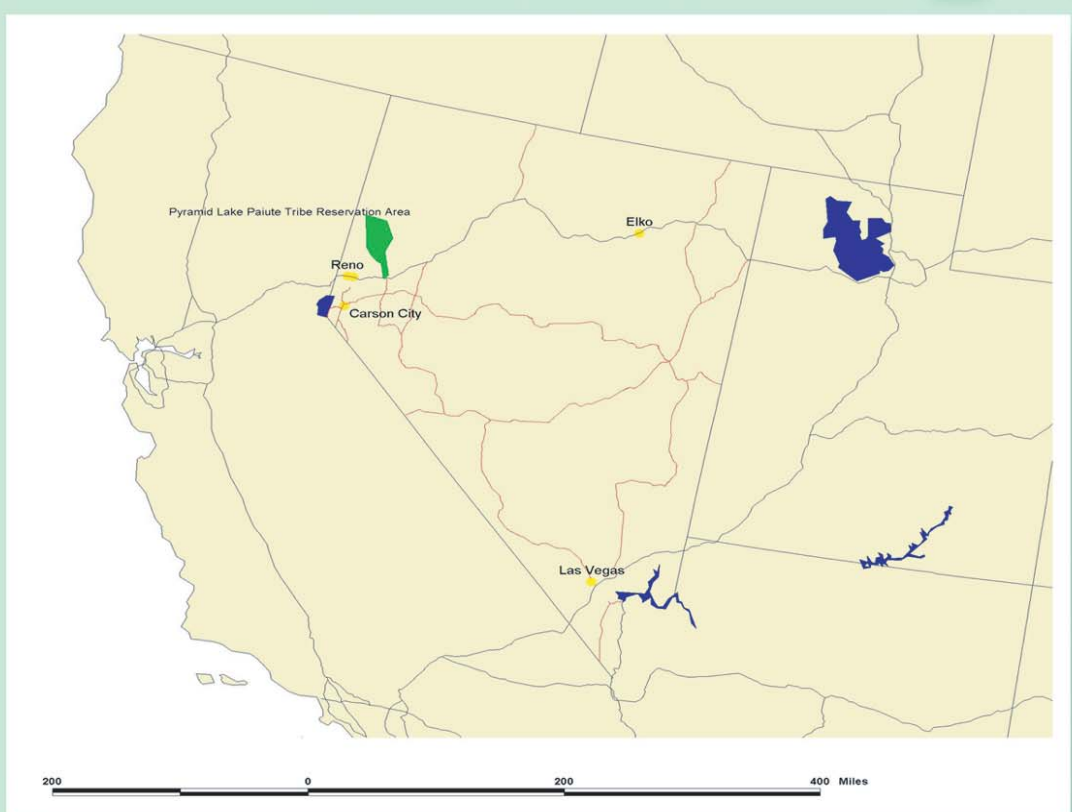


# Landscape Scale Change 1972 - 2000

**Year of Water:  
Thirty Years of Progress  
Through Partnering**

Daniel Mosley, Pyramid Lake Paiute Tribe, Nixon, Nevada  
Daniel T. Heggem, Curtis M. Edmonds and Robert K. Hall  
U.S. Environmental Protection Agency, Office of Research and Development  
National Exposure Research Laboratory, Environmental Sciences Division, Las Vegas, Nevada

Location map of Pyramid Lake Paiute Tribe (PLPT) Reservation in northwestern Nevada.

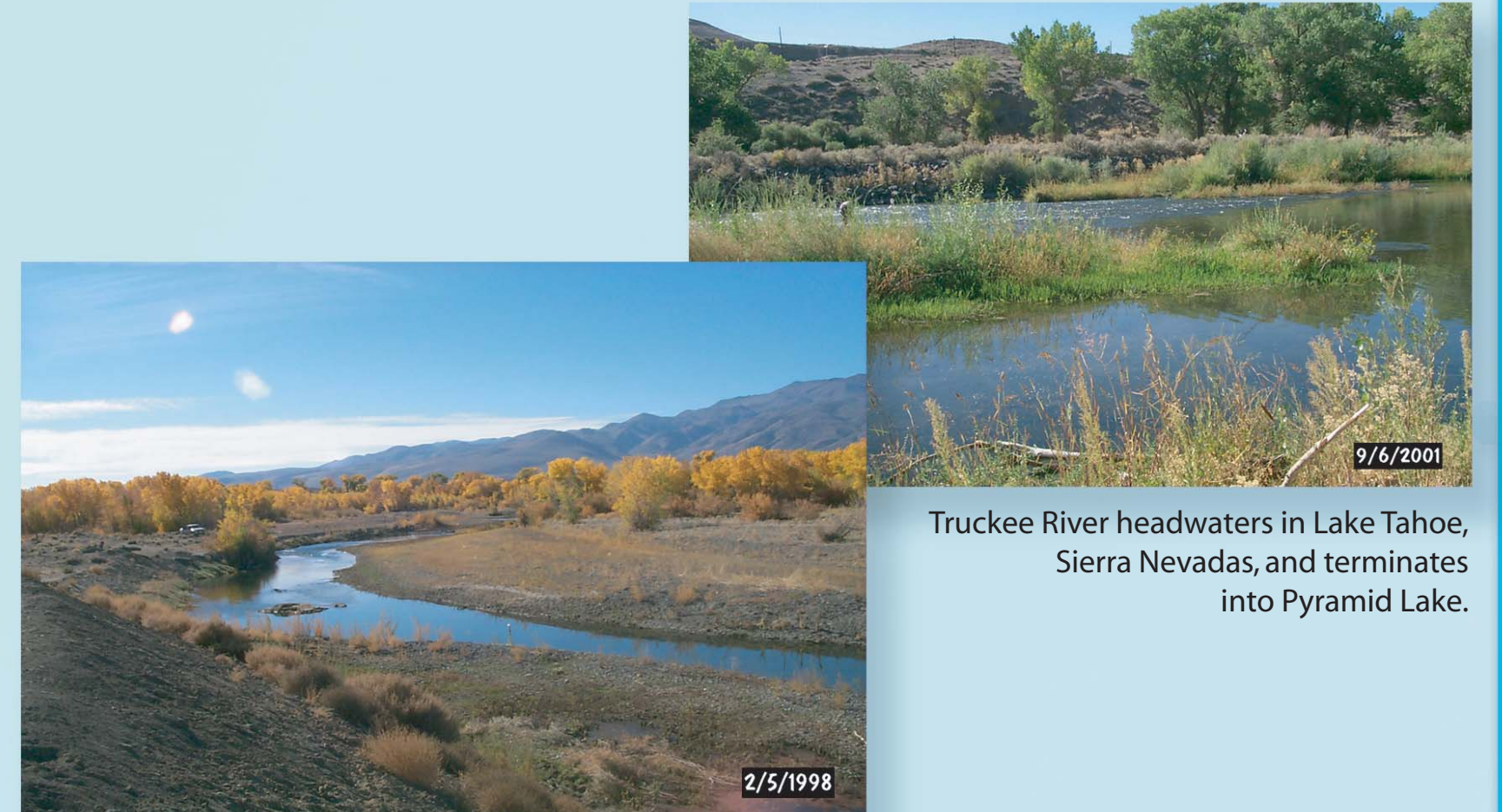


PLPT environmental program goal is recovery of the Lahontan Cutthroat Trout fisheries.

## Paiute Tribe Reservation Area

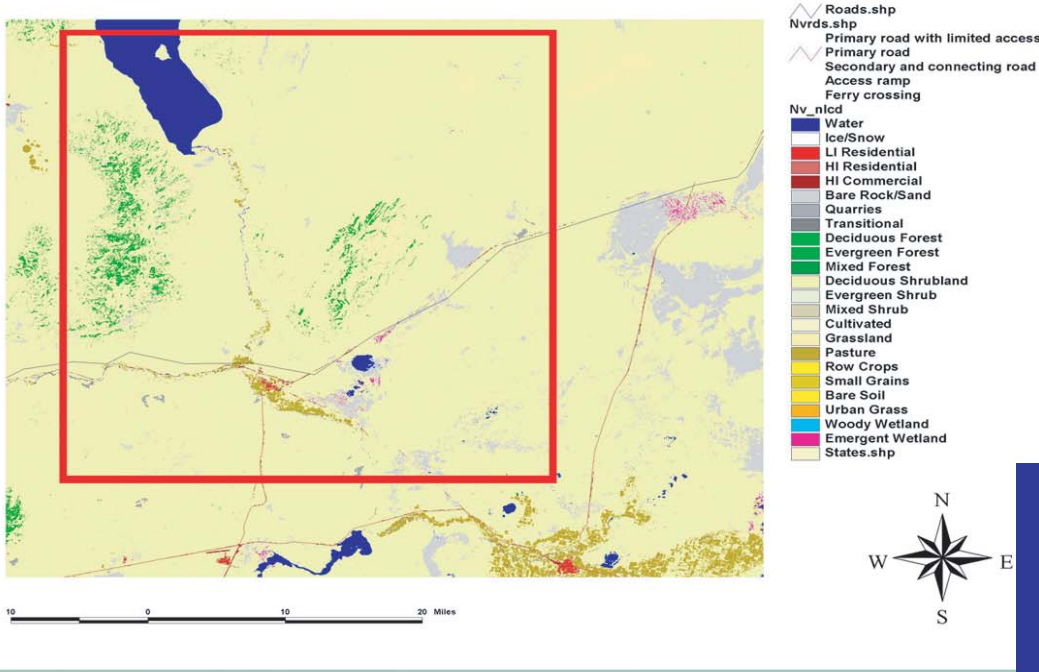
Changes in the landscape affect wildlife habitat, fire condition, rangeland economics, culturally sensitive areas and aesthetic values. The Pyramid Lake Paiute Tribe (PLPT), in cooperation with federal, state and local entities, has been able to increase stream flow, establish water quality standards and improve fish habitat in the Truckee River. As seen in the Landsat imagery from July 25, 1972, and July 27, 2000, representing 28 years of change, lake level and riparian habitat have increased.

In the 1972 image, the red splotches seen in Pyramid Lake are Nodularia blooms (blue-green algae). Nodularia fixate nitrogen from air and Truckee River inputs. Decomposition of the Nodularia is considered the primary source of dissolved organic nitrogen to Pyramid Lake. Blooms can occur in all parts of the Pyramid Lake from August to early November.



Truckee River headwaters in Lake Tahoe, Sierra Nevada, and terminates into Pyramid Lake.

### Paiute Tribe Study Area Land Cover



Land cover is predominantly sagebrush step with single leaf Pinon Pines and Juniper in higher elevations. The Truckee River corridor is easily distinguished from land cover and imagery in this high elevation arid environment.



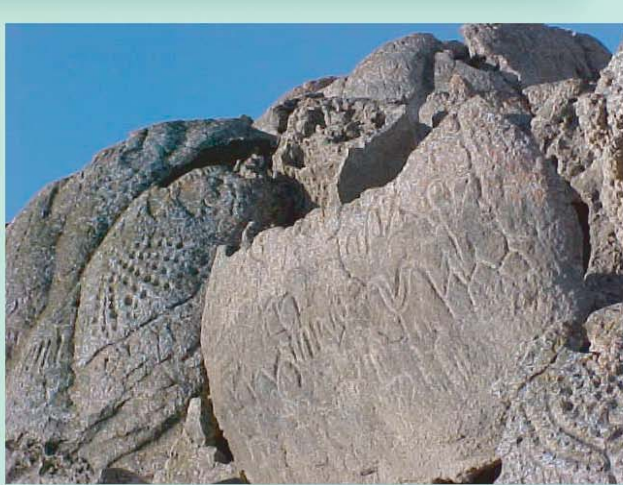
Stone Mother tufa formation



Stone Mother tufa formation. The pyramid, which the lake is named after, is a tufa formation.

Pyramid Lake has high calcium carbonate concentrations, which precipitates out of solution creating large tufa formations.

Petroglyphs near Lake Winnemucca. Prior to 1920 and the Newlands land Reclamation Project, Pyramid Lake was 80 feet higher. At higher lake levels, Pyramid Lake overflowed into Winnemucca Lake, which is now dry.



Petroglyphs



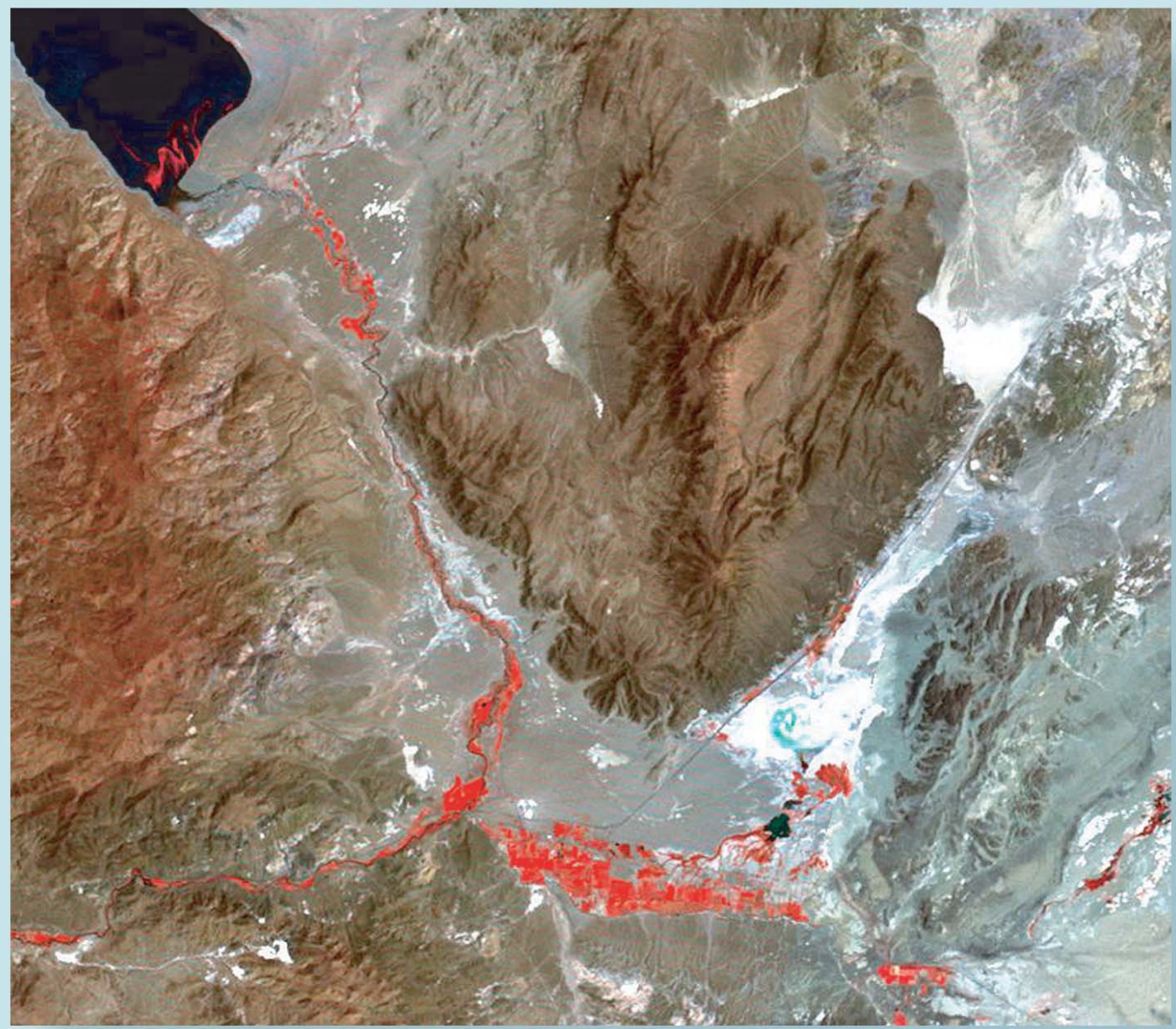
Truckee River upstream of Lockwood



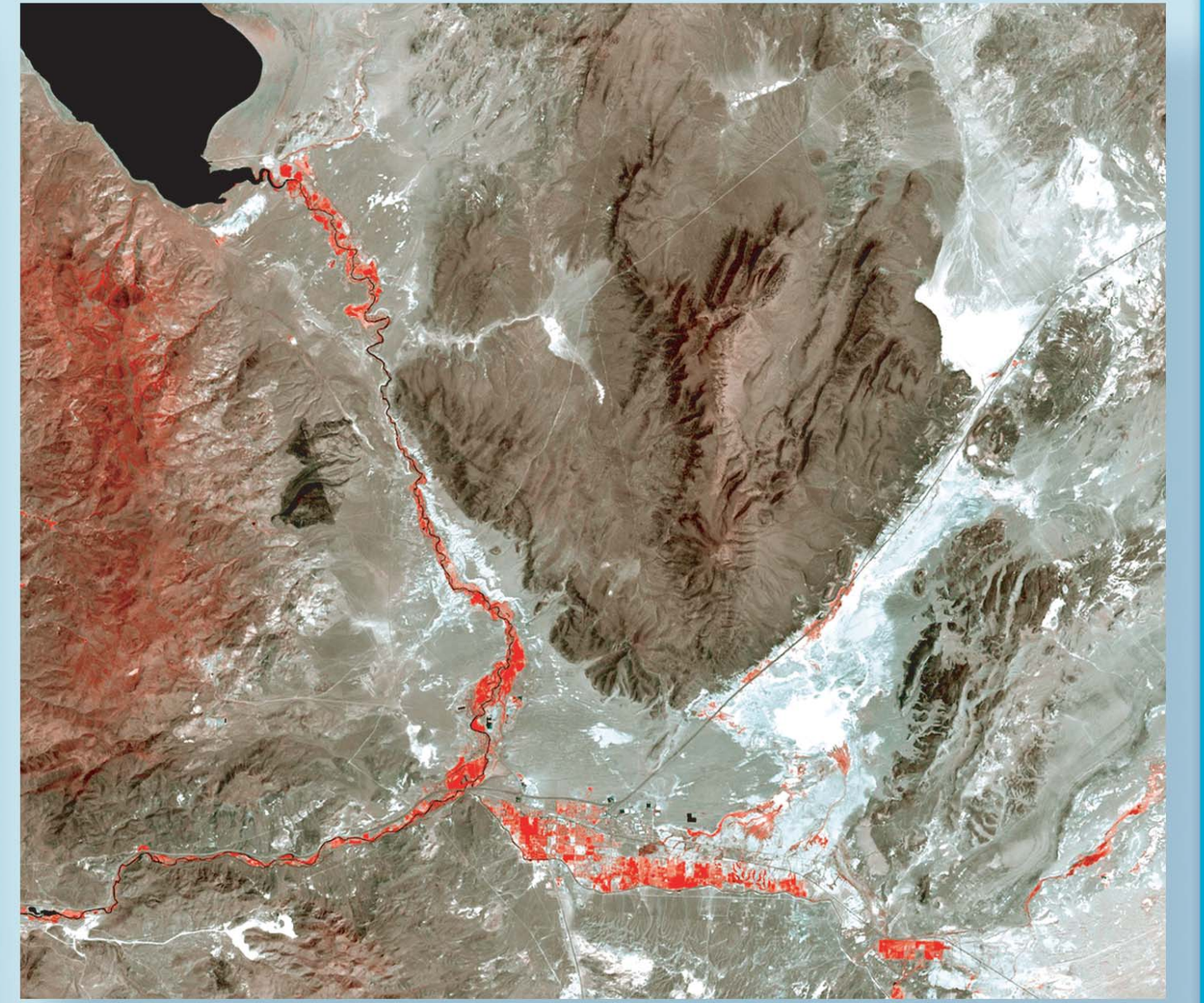
Needles Geyser, Pyramid Lake



Truckee River below the Nixon Bridge



**July 25, 1972**



**July 27, 2000**

