

River Fire Threatens the Bear River Watershed

In August 2021, the River Fire burned more than 2,600 acres, including more than four miles of the Bear River watershed that supplies water to about 60,000 customers of both the Nevada Irrigation District (NID) and Placer County Water Agency (PCWA). NID owns about 320 acres within the burn scar.

The Bear River watershed is a critical source of NID's water, serving 15,000 NID treated water users and 3,000 raw water customers downstream of the wildfire burn area.

The system supports infrastructure that includes the Bear River Canal, Lake of the Pines Water Treatment Plant, two hydropower facilities at Rollins and Combie Dams, and associated conveyance canals. This area is also immediately adjacent to densely populated communities: Lake of the Pines, Alta Sierra, Weimar, Colfax and Chicago Park.



NID property is right of the Bear River. Work to remove burned trees and dead vegetation promotes forest recovery and reduces future fire risk.

Wildfire Damage

Highly erosive soils on steep slopes within the burn scar threaten landslides, potentially bringing trees and other debris into the river creating unsafe conditions and potentially clogging dams and other equipment. A significant amount of sediment flowing into the river threatens the amount of water NID can store at Combie Reservoir and flow through to customers south of Combie.

Remaining dead trees and chaparral pose an ongoing fire threat. The River Fire burn scar could disrupt water transport and delivery to NID's customers, production availability of NID's 2MW of hydropower capacity, and operation concerns for hundreds of miles of open ditch canal and treated water pipeline infrastructure designed for the health and safety of the surrounding population.

Remediation and the Bear River Wildfire Recovery Project

NID has implemented a wide-scale project to address damage caused by the River Fire. The District treated 80 acres in the fall of 2021 and has partnered with the Sierra Nevada Conservancy (SNC) to complete an additional 150 acres of post-wildfire remediation and forest thinning on District lands.

NID continues its watershed work focused on water resource protection. Response actions include hazard tree removal and brush cleanup, hillside/drainage erosion prevention and stabilization, canal conveyance repair, etc. To achieve watershed restoration and protection measures effectively, NID is partnering with local agencies, including PCWA, Placer County, Nevada County, and their respective resource conservation districts (RCDs), as well as with private, state, and federal partners.

Cost

NID has spent more than \$1.1 million in emergency funds and SNC grants. It's anticipated another \$500,000 will be needed for additional watershed fire remediation activities.



(Upper left) Post wildfire damage shows a treated and untreated forest community. NID work has focused on removing burned vegetation.

(Upper right) Post-wildfire conditions show a burned mixed conifer community and conditions leading to elevated erosion rates. NID work has included installation of erosion control structures made of straw bales, straw wattles, and strategically placed logs.

(Left) Looking southeast toward the adjacent NID parcel in Placer County. Emergency erosion control and hazard tree removal was implemented in autumn 2021 to protect the Bear River Canal and Bear River from hazardous post-fire debris and sediment delivery into the river.

About NID

For more than 100 years, the Nevada Irrigation District (NID) has been delivering high-quality water to its customers. What began as a reservoir and canal system built during the California Gold Rush has been transformed into a modern public water system.

NID water originates as snowmelt found in 70,000 acres of high-elevation watershed near the headwaters of the Yuba River, Bear River and Deer Creek.

The District's employees manage water around the clock, moving supplies to one of 29 reservoirs, and later releasing water destined for drinking to one of six water treatment plants for filtration and purification.

The water passes through hundreds of miles of canals and pipes to become irrigation for farms and fields and drinking water for local neighborhoods. The annual result is three billion gallons of high-quality drinking water and enough irrigation water for 32,000 acres of agricultural land.