

Lower Jemez River Fish Structure Restoration Design

Santa Fe National Forest, New Mexico



Top and above: Current conditions

Thoughtful river restoration design addresses instability and sedimentation caused by failing log structures, while enhancing fish habitat and public recreation.

In 1989, as part of the Lower Jemez River Corridor Project, nine v-notch log structures were installed along a seven-mile reach of the river in an effort to enhance fish habitat. These structures are now in various states of failure, resulting in severe riverbed and bank erosion.

Biohabitats is helping the USDA Forest Service to assess the failing structures and develop restoration designs. The goal is to remove the log structures in a way that reduces erosion and sedimentation, stabilizes the riverbed and banks, and improves in-stream habitat.

The design will reduce the overall bankfull width/depth ratio, to help reduce water

temperatures and increase the quantity of pool habitat. A tertiary goal to maintain deep pools at fishing areas previously installed by the Forest Service was also addressed by the restoration design. The design used a variety of boulder structures, designed to integrate with the river's natural features and fishing areas, creates a more natural approach to stabilizing the channel and providing fish habitat. Transplanted willows were also used to stabilize banks while providing shade and cover. The Forest Service intends to implement the restoration design in the near future.

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