

Ward Creek Project

DESCRIPTION:

Ward Creek is tributary to Indian Creek in Genesee Valley. This project was the first of the six Proposition 204 projects developed. It constructed a new 4000 feet channel at meadow elevation, obliterating the existing gully. The Ward Creek project was the first pond and plug project attempted on a stream system with a high, perennial baseflow. It was also a first-of-its-kind system in that the channel was designed to flow through the ponds. All previous projects had the gully ponds off the design channel with surface flow only during floods. The technical challenge of designing a pond-to-pond channel is the loss of rejuvenating bedload that settles in the first pond. Through a process of sediment measurements, sediment transport calculations and modeling, a channel design was achieved that would not mobilize the material used in the new streambed. This was carefully monitored during the first flood event (Feb. 2000) and determined to be functioning as predicted. This project continues to function without effects through 2015.

SPONSORS:

STATE: Proposition 204 via Plumas County

PROJECT RESULTS:

Unlike other project monitoring under this grant, the objective of formal monitoring on Ward Creek was not to determine project effectiveness, but to determine what effect the pond-to-pond channel technique had on water temperature and the lack of rejuvenating bedload on channel stability. There was no formal vegetation monitoring, however, observation monitoring showed a transplant survival of about 90%. Likewise, plug re-vegetation was not formally monitored. The data show that, overall the water temperature does warm as it moves through the project area. The amount of temperature change through the same area before the project is unknown. As vegetation recovers along the channel, shade will increase and is expected to have a cooling effect on water temperature through the project

PROJECT REPORTS (IF AVAILABLE):

Ward Creek Final Report

<http://www.weebly.com/uploads/4/0/5/5/40554561/ward.pdf>