



THE SIERRA FUND

CLOVER VALLEY RANCH

A pilot project to restore resiliency to a Sierra Nevada montane meadow



Meadows are hotspots for biodiversity and cultural revitalization, providing significant services including flood attenuation, sediment filtration, water storage, water quality improvement, carbon sequestration, and livestock forage. The desired condition of meadow ecosystems is for meadows to be hydrologically functional.

BACKGROUND

Red Clover Valley, located at the headwaters of the Feather River watershed in Plumas County, has a distinctive history as a rural ranching community that pre-dates World War I. Prior to the 19th century Gold Rush, the area was inhabited by the Mountain Maidu. Since the displacement of the Mountain Maidu from the valley, overgrazing and poor land management has led to severe degradation.

PROJECT

This project restores the hydrologic function of Red Clover Valley and the resiliency of the communities who live in the region. Data from before and after restoration is being collected to quantify benefits of restoration and inform Best Management Practices. Best-practices are informed by the involvement of the Mountain Maidu, engagement of researchers from multiple universities, and dissemination of findings through collaboration with the Sierra Meadows Partnership.

IMPACT

Montane meadows are among the most unique and valuable habitat in the region, providing a disproportionate number of ecosystem services compared to the area they cover. This project works to improve water availability, reliability, and quantity; facilitate the restoration and resilience of native wet meadow vegetation assemblages; and increase habitat integrity and availability. Success is measured through evaluation of data related to hydrology, geomorphology, avian species diversity and abundance, vegetation, and water quality.



NEXT STEPS

In 2018 NRCS contractors installed a series of grade control structures to slow the passage of water through the meadow. TSF supplemented these activities by building beaver dam analogues (BDAs) with the help of Maidu youth, seeding disturbed areas with native grasses, and planting of thousands of willow harvested via partnership with a local rancher. The combination of grade control structures and BDAs will allow flood flows to access the floodplain and facilitate deposition of sediments and nutrients into newly planted and existing vegetation, providing key habitat. Involvement of tribal and ranching community members in stewardship activities increases both ecosystem and community resiliency for the region.

BY THE NUMBERS

Since 2017 TSF has installed **11 SUBSURFACE WATER MONITORING STATIONS**, **2 SURFACE MONITORING GAGES** and **4 BEAVER DAM ANALOGUES**, in addition to planting **1,000 WILLOW**, and establishing **5 TRANSECTS** to monitor vegetation assemblages on **2 EASEMENTS** across **2,665 ACRES**. **AVIAN SURVEYS AT 27** monitoring stations have been conducted.

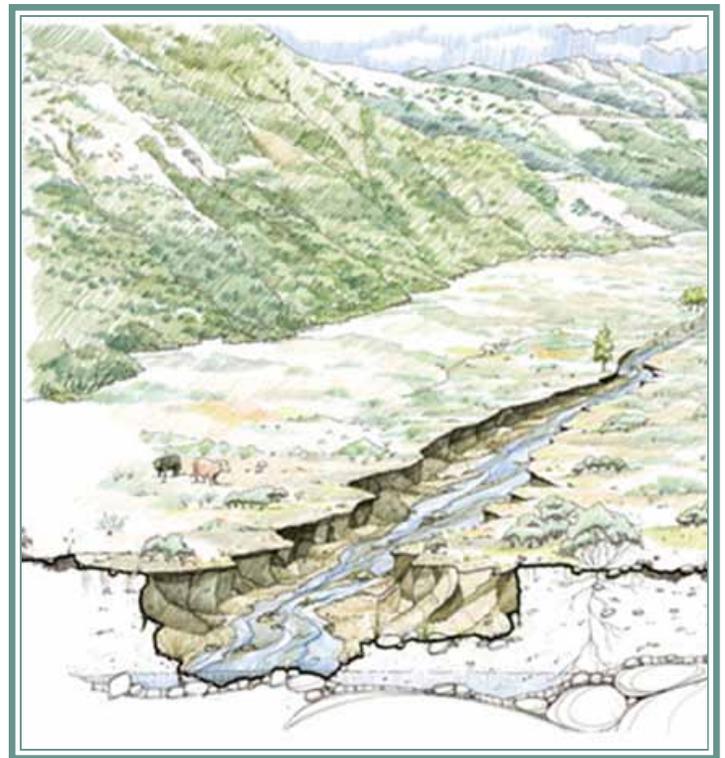


Illustration of a Degraded Meadow in the Sierra Nevada.

Source: Restoration Design Group.

PROJECT FUNDERS

Past and present project funders include: Natural Resources Conservation Service and Red Clover LLC.

