



SPURE MIDING BURGERS



Upper Feather River Watershed Monitoring Red Clover Creek at Notson Bridge



Annual Report

FYs 2022-2024

Platinum Transparency 2025

Candid.

Our mission is to promote the benefits of good landscape stewardship through education and restoration activities that result in healthy forests, resilient watersheds and prosperous communities.

Our History

Plumas Corporation's 1983 mission was to "promote the orderly and beneficial expansion of the economic base of Plumas County for the common good and general welfare of the residents". Since then, Plumas Corp's mission has evolved from a focus on conventional economic development to watershed restoration and forest health as key elements of prosperous rural communities. Plumas Corporation served as the implementation partner of the Feather River Coordinated Resource Management Group (FRCRM) for 26 years (1985-2013). Plumas Corporation has and continues to provide leadership in funding, management and implementation of over 100 watershed projects, including on-the-ground restoration, studies/strategies, planning/coordination projects, and education projects.

In 2016, Plumas Corporation was a founding member of the Sierra Meadows Partnership (SMP), a collaborative group comprised of 80 NGOs, government agencies and other stakeholders with shared interests in protecting California's source watersheds. As part of this coalition, Plumas Corporation works with other organizations within SMP to develop climate forward watershed restoration work throughout the Sierra Nevada.

Plumas Corporation has served as the fiscal agent for the Plumas County Fire Safe Council (PCFSC) since 2002. All project contracting and PCFSC staff are with Plumas Corp. The PCFSC Program is summarized in a separate annual report (<u>PCFSC 2022 Annual Report</u>).

This Report

This report summarizes Plumas Corporation's work during 2022 to 2024 fiscal years (July 1-June 30).





Our partnerships have produced amazing results

Collaboration and support are instrumental to our group efforts to preserve and restore Sierra Nevada meadows. We truly appreciate our many partners' commitment and assistance.

Plumas Corporation works with partners from other NGOs, the USDA Forest Service, and private landowners to create cleaner water and promote biodiversity in the Sierra Nevada. The Sierra Meadows Partnership, established in 2016, links us with a network of other partners and stakeholders working to restore Sierra meadows.





Impact

As part of the Sierra Meadows Partnership, Point Blue Conservation Science was awarded a \$24 million block grant by the California Wildlife Conservation Board (WCB) in fiscal year 2023 to restore 6,000 acres of meadow and complete planning on an additional 4,000 acres. Those funds are being distributed through multiple competative subgrants.

In the 2024 fiscal year, Plumas Corporation successfully applied for \$2,423,853 of funding from this WCB SMP block grant to implement the Mountain Meadows Creek, Rock Creek, and Exchequer Meadow (Kings River) projects; and, to complete planning/permitting projects at lower Goodrich Creek and McReynolds Valley in the Feather River Watershed. Also secured from the block grant were funds to complete planning/permitting in Little Indian Valley in the Mokelumne Watershed, and Redwood and Cannell Meadows in the Kern River Watershed. Cumulatively, these projects are contributing to the Sierra Meadow Partnership's goals by restoring 544 acres of meadow in fiscal year 2024 and planning another 1,107 acres for future work.

The figure below displays grant awards and acres restored from all grants from federal, state, and private funders received in fiscal years 2022-2024.







Funding by Source

During the 2022-2024 fiscal years, project funding awards have come primarily from state and federal agencies. State funding is predominately from Point Blue Conservation Science through the Wildlife Conservation Board block grants. Federal funding is mainly through agreements with the USDA Forest Service. Private awards generally come from environmental foundations.

Funding by Project Type

While some years are heavy project planning years, other years are heavy project implementation years. The 2022-2024 fiscal years were relatively evenly matched between project planning and implementation. Other projects include coordination, permitting and environmental compliance services, and partner support.



Completed Projects

In the 2022-2024 fiscal years, Plumas Corporation completed implemented nine projects, and planned for restoration in eight other meadows. These projects range from the southern-most end of the Sierra Nevada in Sequoia National Forest all the way up to Lassen National Forest where the Northern Sierra meets the Southern Cascades. With private, state, and federal funding, 1,116 acres of meadow habitat were restored in 2022-2024 and an additional 2,355 acres are planned for future restoration projects. Our restoration work aims to restore the stream-floodplain connectivity, improving the hydrologic and ecological functions of the meadow. Plumas Corporation conducts extensive pre- and post-project performance monitoring to assess the success of our work. Additional project effectiveness research has been conducted by university partners, CA Department of Water Resources, and USFS Pacific Southwest Research Station.



Project Map



Mattley Meadow

Planning for the Mattley Meadow project begain in 2014 with funds from National Fish and Wildlife Foundation. Implementation of 30 acres of montane meadows and an additional 15 acres of riparian habitat was completed in the headwaters of the Mokelumne River Watershed on the Stanislaus National Forest in 2022. The project is also part of the Sierra Meadows Hydrology Monitoring Project which is researching the effects and benefits of restoration on meadow hydrology. A partial fill restoration technique was utilized resulting in five borrow areas (ponds) and two channel fill reaches that reconnect the surrounding floodplain and will rejuvenate aspen stands. Mattley Meadow is also home to endangered Sierra Nevada Yellow-Legged Frogs who may benefit from expanded meadow habitat.



Partners

Upper Mokelumne River Watershed Authority

Stan Dell'Orto



Watershed Mokelumne River

Year Completed 2022

Funding Source WCB Habitat Conservation Fund

Acres Restored 45

Thompson Meadow

Thompson Meadow is a 47-acre project located on **Plumas National Forest** lands. Thompson Creek is a tributary to McReynolds Creek in Red Clover Valley. This project area burned in the 2021 Dixie Fire prior to restoration. Comparisons between fire effects in this meadow and a nearby restored reach of Red Clover Valley demonstrated the importance of meadows as fuelbreaks and refugia for wildlife during wildfires. The project was funded by the CA Wildlife Conservation Board, USFS-Plumas National Forest, California Department of Water Resources, and Rocky Mountain Elk Foundation, as well as facilitated by Bonneville Environmental Foundation for Procter & Gamble, A collaboratively-initiated project between Plumas National Forest (PNF) and California Department of Water Resources (DWR), the project purpose was to improve the understanding and quantification of meadow restoration effects in the Sierra Nevada. Project planning funds were awarded through the California Department of Fish and Wildlife (CDFW)

Watershed Restoration Grant Program. DWR began intensive preproject monitoring of several hydrological parameters, including weather, stream flow, soil moisture, and groundwater levels in 2012. Post-restoration monitoring began in 2022 and will continue through at least 2026. Environmental monitoring of stream temperature, dissolved oxygen, birds, small mammals, reptiles, fish and vegetation is also being conducted. Point Blue has instituted a bird monitoring study in Thompson Meadow before/after restoration and in nearby unrestored meadows to better understand how restoration impacts avian species richness. Most notably, Thompson had a drastic increase in Spotted Sandpipers, Killdeer and Brewer's Blackbird in the first-year post-restoration relative to the nearby unrestored control meadow. The project is also being increasingly visited by Rocky Mountain Elk and is in close proximity to the Beyem Seyo Gray Wolf pack.







Partners	Watershed North Fork Feather River
	Year Completed 2022
TOPE CALIFORNIC	Imp. Funding Sources -WCB Forest Conservation Fund -Bonneville Environmental
RMEF	Foundation -Rocky Mountain Elk Foundation
	Acres Restored 47

BOARD

Rock Creek







Rock Creek is in the North Fork Feather River Watershed on Collins Pine land, located approximately eight miles east of Chester, CA. Project planning funds were awarded through the National Fish and Wildlife Foundation. Work on Rock Creek occurred in 2021 during and immediately after the Dixie Fire. The project included a forestry component in which Collins Pine thinned the edges of the meadow and removed conifers in the meadow footprint to reopen meadow habitat and enhance existing aspen stands. This first phase of construction was funded by a CalFire California Climate Investments Forest Health grant to Sierra Institute. The first phase also included in-channel work consisting of rock riffles and post-assisted log structures (PALS; i.e., woody debris jams). In 2023, routine maintenance was performed on half of the 56 existing postassisted log structures and 15 additional structures were constructed to enhance the channel-floodplain connection on 83 acres. Fencing around three aspen stands using on-site materials was also completed. All 2023 implementation work was funded through the WCB SMP block grant.



Watershed North Fork Feather River

Year Completed
2021 & 2023

Imp. Funding Source -WCB SMP block grant - CAL FIRE California Climate Investments Forest Health Program

Acres Restored
83

Mountain Meadows Creek

Mountain Meadows Creek is located on private land owned by Red River Forests six miles southeast of Westwood, California. The 2021 Dixie Fire passed through the surrounding forest, burning the pine forest and riparian vegetation growing in the upper portions of the riparian corridor within the project area. Project planning was funded by California Wildlife **Conservation Board Forest Conservation** Grant, the National Fish and Wildlife Foundation, and landowners. Project implementation was facilitated by Bonneville Environmental Foundation for Procter & Gamble. The project was constructed in 2023 and eliminated 9,446 feet of degraded channel using 220,000 yards of fill. This work reactivated 14,241 feet of abandoned historic floodplain channel, rewatering the meadow and raising shallow groundwater by an average of four feet. After project implementation was completed, Plumas Corp staff and community volunteers planted native seed mixes on disturbed areas. In 2024, staff and Westwood school students planted wild rose, willow and other woody riparian species. The Mountain Meadows Creek restoration project resulted in 441 acres of restored landscape that now serves as improved habitat for waterfowl, provides better forage for livestock, and stores atmospheric carbon.



Mountain Meadows Creek

Restored 2023



Exchequer Meadow



Exchequer Meadow is located in Sierra National Forest in the Dinkey Creek Watershed and is home to the federally endangered Yosemite toad. Implemented in September 2023, restoration entailed the construction of 63 channel structures (PALS) and strategic placement of down logs to deter cattle trailing. Project planning was funded by the National Fish and Wildlife Foundation. In 2024, maintenance/phased implementation was performed on 55 structures. The low-tech restoration efforts aim to reconnect 20 acres of meadow floodplain habitat with the stream channel.









Upper Yellow Creek

The Upper Yellow Creek Watershed Restoration Project includes meadow, forest and stream channel habitat severely burned in the Dixie Fire on Lassen National Forest (LNF). Complete fill of an incised tributary channel (referred to as YC02) was done in 2021 right after the Dixie Fire, restoring 100 acres of meadow floodplain. From 2022-2024, 87 channel structures (PALS) were constructed on the mainstem of Yellow Creek and some smaller channels on the meadow floodplain to capture sediment, reduce channel incision, and spread higher stream flows across the floodplain. This work resulted in reconnecting 50 acres of dewatered floodplain.

The project was facilitated by Bonneville Environmental Foundation for Coca-Cola. California Department of Fish and Wildlife worked with the Maidu Summit Consortium to release a family of seven beavers (two adults, four kits and one sub-adult) onto Maidu land, approximately three miles downstream from this Lassen National Forest project. The beaver reintroduction site along Yellow Creek was restored by Plumas Corp in 2013. This was the first beaver reintroduction in California in over 70 years. Beavers may move into other portions of Tásmam Koyóm, including the project area on LNF, and encourage habitat complexity throughout the watershed.



Partners	Watershed North Fork Feather River
	Year Completed 2023 & 2024
	Imp. Funding Source -USDA Forest Service Storrie Fire Litigation Funds -National Fish & Wildlife Foundation -Bonneville Environmental Foundation
NFWF	Acres Restored 135

Powell Meadow

The Powell Meadow Restoration Project was developed by multiple partners and the Sequoia National Forest. The project objectives aligned with requirements of the Army Corps of Engineers In-Lieu-Fee (ILF) Wetland Mitigation Program, administered by the National Fish & Wildlife Foundation. The restoration design for Powell Meadow consisted of filling degraded channels using alluvial fill material acquired from on-site borrow areas, constructing new riffles, and placing sod plugs to help raise the base elevation of Fish Creek within the Project site. This design approach allowed for the re-establishment of wet meadow habitat in the most degraded, previously dry portions of the meadow and restored a full range of natural physical processes within the less degraded existing wet meadow areas. The restoration plan for Powell Meadow was designed to redirect flow from degraded channels on the floodplain to the valley low (i.e., path of lowest elevation), stop headcuts from advancing, enhance fish habitat, and stabilize the channel to prevent further degradation.





Nevada Irrigation District (NID), Plumas Corp and other partners (CSU Sacramento, WCB) worked together to enhance floodplain function in English Meadow. The meadow was severely impacted by a dam that flooded the area for approximately 25 years. The dam was destroyed in the 1880s, but the legacy of reservoir sediments, and other actions, like drainage ditches, remain. This 180-acre meadow project was part of a larger project that included extensive fuel reduction. Using only on-site materials at this remote location, woody and streambed materials were used to construct riffles and debris jams to increase the frequency of floodplain flow, as well as to treat tributary and remnant channels. Material was chipped to add organics to the poor silty soils. NID is conducting stream flow and other monitoring to assess the effectiveness of project objectives.







nglish Meadov

Boney Flat





Boney Flat is located on the Stanislaus National Forest on an unnamed channel which is tributary to Twomile Creek, thence the Clavey River. Boney Flat Meadow is one of several within the 2013 Rim Fire footprint. Plumas Corp has been assisting the Tuolumne River Trust since 2017 to plan and implement meadow restoration projects, as part of the Rim Fire Recovery efforts. Implemented in June 2024, the primary treatment in Boney Flat was to add wood to the severely incised channel, using post-assisted log structures (PALs). The project also includes conifer removal, scattered wood debris on the meadow surface, head-cutting rock drops, and livestock exclusion fencing.





Giant Sequoia Resilience Coordination Project

The Giant Sequoia Lands Coalition (GSLC) was established in 2021 after the 2020 Castle Fire, and is composed of all federal, tribal, state, local agencies and organizations that manage Giant Sequoia groves in public, tribal or private non-profit ownership. They are committed to the conservation of Giant Sequoia ecosystems. Plumas Corporation received funding from the Sierra Nevada Conservancy (SNC) in 2023 to support the science and grove management branches of the Coalition. The grant deliverables include developing a giant sequoia data access portal, a grove resilience assessment, and a five-year management strategy with a priority project workplan for the GSLC region. Plumas Corp subcontracted Conservation Biology Institute (CBI) to assist with all the deliverables. In 2024, Plumas Corp and CBI worked closely with GSLC members and scientists to develop a GSLC Data Portal and a set of three Grove Vulnerability Models. The three models rank the relative vulnerability of giant sequoia groves based on three key threats to the species - severe wildfire, drought, and lack of recruitment. The GSLC Data Portal, an online resource at https://gslc.databasin.org, includes the GSLC Maps and Spatial Data Gallery; an interactive Grove Assessment Map containing the Grove Vulnerability Models; a Giant Seguoia Data Catalog; and a Resource Publications Library. All of these resources are available to GSLC members. Several drafts of the models were created with direction given by GSLC science advisors. A Grove Vulnerability Model Methods document was developed, describing the models, data, and premises upon which the vulnerability models were built. Next steps for 2025 include completing a preliminary five-year priority project workplan and Sequoia Grove Health and Resilience Assessment. To ensure the successful co-development of the workplan and assessment, the GSLC recently established a Task Force to act as the main point of contact to Plumas Corp and CBI on behalf of the GSLC member organizations The Task Force will review milestone products and consolidate data, information, and input from each partner organization, as needed.





Tributaries Forest Recovery Project

Plumas Corporation is the lead partner with Plumas National Forest to develop a 163,248-acre Forest Recovery Project. The project area covers land burned by the 2021 Dixie Fire, 2019 Walker Fire, and the 2007 Moonlight and Wheeler Fires. The Project is part of a suite of landscape-level protection and recovery projects throughout Plumas National Forest aimed at reducing the wildfire risks and impacts to communities, critical infrastructure, and forest resources, and accelerating the recovery of forest resources impacted by recent large-scale wildfires.

The Tributaries Project will be implemented over a 10-year period following expected NEPA approval in

2025. The area includes McReynolds Valley, whose restoration design is currently being developed by Plumas Corp staff, and two other meadows that have been identified for restoration to be planned in the coming years. Alongside watershed restoration work, there will be thinning, fuel reduction, and conifer replanting along with road and road crossing improvements to address watershed issues. This work is intended to accelerate the restoration of all forest values, mitigate future wildfire risk and create resilient ecosystems. Reforestation actions and watershed work entail specific actions to improve habitat for both wildlife and native plant communities.

Partners



Blakeless Meadow and Turner Ridge October 2022

Sierra Meadows Hydrology Monitoring

Sierra Meadows Hydrology Monitoring funding was granted in 2017 through the WCB Streamflow Enhancement Program, and included monitoring work in eight Sierra Nevada meadows, from the Seguoia National Forest in the south to Lassen County in the north. These meadows were selected to represent a range of elevations, latitudes, and pre- and post-restoration conditions to demonstrate the effectiveness of meadow restoration projects. As of the end of 2022, all study meadows had been fully restored. Data collected will provide insight on how meadow restoration effects stream flow, vegetation communities, and erosion. The season of data collection concluded with the end of the 2023 water year (October 1-September 30). Data analysis and a final report was submitted in 2024, with continued data collection on some sites that have project-specific funds to continue monitoring efforts, specifically Dry and Mattley meadows.

Plumas Corp has maintained a stream flow monitoring network in the East Branch North Fork Feather River Watershed since 1999. Originally established through a Surface Water Ambient Monitoring Program (SWAMP) grant, the network has since been funded through the Secure Rural Schools & Community Self Determination Act with Title II funds administered by the USDA Forest Service from 2011-2018, and 2021-present. Continuous recording stations that record flow throughout the year are located on Indian Creek at the Taylorsville and Flournoy bridges, on Red Clover Creek at Notson Bridge, and on Last Chance Creek at Doyle Crossing. Plumas Corporation staff measure stream flow, water temperature, and electroconductivity when these sites are accessible to calibrate the continuously recorded data. This long-term network of stations was designed to collect data for understanding changes in late season flow and water temperatures due to restoration activities, climate change effects (i.e. drought and wildfires), and/or land management activities on these watersheds.













Windy Fire Meadow Assessment and Planning

The Kern Community Foundation and American Forests via the USDA Forest Service provided a combined \$145,000 to assess and develop conceptual restoration designs for 17 meadows in the South Creek and Tobias Creek Watersheds. These areas were severely impacted by the 2021 Windy Fire and are sending destabilized sediment downstream into critical Kern River rainbow trout habitat. The acquired funding supports emergency actions like tree falling, willow staking and seed planting to aid meadows during their fire recovery. In total, 141 acres of meadow were surveyed, and three meadows (Thompson Camp Spring, Frog and French Joe) were found to be at the highest risk for severe decline. Preliminary surveys of these meadows were taken to begin generating more detailed restoration actions to prevent further degradation and conceptual designs were developed. Plumas Corporation is working with Sequoia National Forest and local tribes to complete designs.





Public Outreach

Tours



In June of 2023, Plumas Corporation invited stakeholders, investors, federal and state legislators and others working in natural resources in Plumas County to field tour meadow projects in the Mountain Meadows Basin. The tour group visited two previously restored meadows (Greenville Creek and East Creek) and two unrestored meadows (Mountain Meadows Creek and McKenzie Meadows).

This was followed by a collaborative tour of projects in Sequoia National Forest, with SMP partners, Trout Unlimited and California Trout, Inc. Over 25 people attended the tour, including Forest Service officials and community members invested in the Kern River Watershed. The group visited four sites within the 2021 Windy Fire footprint, including the restored lower Parker Meadow, and unrestored Redwood and Double Bunk meadows, and Thompson Springs Campsite.



River Clean Up

Plumas Corp partnered with Friends of Plumas Wilderness, Sierra Nevada Alliance, and Plumas National Forest to participate in the Great Sierra River Cleanup in 2023. The event was held September 23rd on the Middle Fork Feather River starting at the Red Bridge on La Porte Road. 17 Volunteers collected 77 pounds of garbage along the middle Fork of the Feather River near Red Bridge.

Wild & Scenic Film Festival

Plumas Corp was a Visionary Sponsor of the 2023 Wild and Scenic Environmental Film Festival in Quincy, CA on September 13th. The film festival is hosted by Plumas Arts and is a fundraiser for arts and the local Town Hall Theater. Raising awareness on environmental issues and encouraging local citizens to get involved, Plumas Corp has been a proud sponsor of this annual event since 2015.



The Team



Jim Wilcox Executive Director

Plumas Corporation Executive Director with over 34 years of watershed restoration work in the Sierra. Jim mentors the entire Plumas Corporation staff. Jim designed/ implemented the Mattley Meadow project, oversaw implementation of Thompson Meadow and Mountain Meadows Creek.



Gia Martynn Operations Director

Plumas Corporation Operations Director. Gia joined Plumas Corporation in 2005 and manages grants, organizes public outreach, and assists in watershed monitoring, project planning, and implementation, as needed.



Scott Corey Administrative Assistant

Administrative Assistant supporting overall operations of both the Watershed and Plumas County Fire Safe Council programs, as well as management of Plumas Corp's office building.



Leslie Mink Project Manager

Project Manager for over twenty years, Leslie designed and implemented Rock Creek, Yellow Creek, Boney Meadow, Exchequer Meadow, and English Meadow projects. She is currently working on a project in Poplar Meadow and is providing support on meadows in the **Tributaries Forest** Recovery Project. In addition, she is the Project Lead on meadows in the Rim Fire footprint, assisting the Tuolumne River Trust with designing and implementing meadow restoration projects on the Stanislaus National Forest.





Jeanie Hinds Project Manager

Project Manager since 2016, Mountain Meadows Creek was Jeanie's first project to design, plan, and implement from start to finish on her own. She also assisted with the restoration planning, implementation, and monitoring of Rock Creek. Jeanie is a co-Team Lead for the **Tributaries Forest Recovery Project and** serves as our Feather **River Watershed** Monitoring Coordinator.



Terri Rust Project Manager

Having worked with Plumas Corp in the past, Terri came back to Plumas Corp as a fulltime Project Manager in 2017 to oversee and implement the Sierra Meadows Hydrology Monitoring Project. She helped build Mattley Meadow and Thompson Meadow projects. Terri is the Project Lead for McKenzie Meadow in Lassen County, currently working on the final design and environmental compliance components of the project. She is also the lead for the Windy Fire Meadows, planning, designing, and implementing several projects in Sequoia National Forest, and McReynolds Valley, a meadow project in the **Tributaries Forest** Recovery Project.



Teresa Arrate Project Manager

Project Manager since 2021, Teresa is the co-Team Lead on the **Tributaries Forest** Recovery Project, and helped construct Yellow Creek and Mountain Meadows Creek. She is the Project Lead for the Moonlight Road/Lower Goodrich Creek restoration project, which is in the design/ planning phase and is assisting with monitoring and planning of the Poplar Meadow project.



Kendal Hiemke Project Manager

The newest Plumas Corp Project Manager, starting in 2023, Kendal is assisting in project design and implementation of projects in the Southern and Central Sierra, and is a team member collecting data and helping with planning the **Tributaries Forest** Recovery Project, as well as providing project and monitoring support when needed.



Having worked with Plumas Corp in the past, Kara came back to Plumas Corp as Operations Assistant in 2024. She assists with grant management, as well as providing project and monitoring support when needed. Kara is the principal author of this report.



Office Dogs: Cosmo, Winslow, Bailey, Meiko

Kara Rockett Operations Assistant



Restoring Watersheds & Forest Health

(530) 283-3739 plumascorp.org



Plumas Corp staff revisits 1995 Big Flat & 2001 Clark Creek projects May 2024