

Brief Overview: UMRWA-USFS Forest Projects Plan (FPP) Monitoring Program

Proposal to CAL FIRE's Forest Health Research Program 2023-2024 Grant Solicitation

Full Application Due: April 17, 2024

Grant period: July 2024-March 2029

Project Title: Development and implementation of a long-term monitoring effort for a landscape-scale forest health and ecosystem resilience project in the Central Sierra Nevada

Research Project Type: Special Topics Research

Proposal Topic(s): Development, implementation, or systematic review of ecological monitoring efforts related to vegetation treatments.

Project Personnel, Organization:

Organization: Upper Mokelumne River Watershed Authority

PI: Megan Layhee (UMRWA)

CO-PI: Becky Estes (USDA FS)

Estimated Funding Requested: \$245,861

Background and Purpose

The Forest Projects Plan (FPP) is a collaborative, large-landscape forest health and ecosystem resilience effort located on the Eldorado National Forest, Amador Ranger District and the Stanislaus National Forest, Calaveras Ranger District in the Central Sierra Nevada. The FPP project is a partnership effort between the USDA Forest Service (USDA FS) and the Upper Mokelumne River Watershed Authority (UMRWA), a Joint Powers Agency (JPA) comprised of six water agencies and three counties. In January 2023, UMRWA and the USDA FS completed planning of FPP Phase 1, which addresses immediate fuels reduction treatments on more than 26,000 acres on the Eldorado National Forest, Amador Ranger District. Through close collaboration and involvement in project development, FPP Phase 1 received unanimous support from the Amador-Calaveras Consensus Group (ACCG)—a local community-based collaborative that works to create healthy forests and watersheds, fire-safe communities, and sustainable local economies. Implementation of Phase 1 is currently underway through funding received from CAL FIRE's Forest Health Program (Grant IDs 8GG21607, 47222480). Additionally, UMRWA and the USDA FS, working closely with the ACCG, is now conducting the planning for Phase 2, to promote and restore forest health and ecosystem resilience on up to approximately 250,000 acres, with an estimated completion of signed records of decisions in December 2025. See FPP project map here:

<https://arcg.is/4LDTj>.

The magnitude of the FPP project warrants the need for a robust, long-term monitoring effort to address treatment effectiveness and co-benefits and other treatments effects and to guide follow-up maintenance actions to sustain forest health. The monitoring program should also demonstrate the utility of using remote-sensed data and large-scale desktop applications (e.g., Planscape 2024) to bolster

the monitoring effort. To that end, the FPP team has been collaborating with the ACCG's Monitoring Work Group, a collaborative effort providing ecological, economic, and social monitoring oversight, and translating the benefits and lessons learned from restoration efforts to future management activities, to begin to develop and implement a long-term monitoring program for FPP, including FPP Phase 1 and Phase 2, henceforth called the FPP Monitoring Program.

Project Description

The FPP team is seeking funding under the 2023-24 CAL FIRE Forest Health Research Program Grant Solicitation to achieve several key components of the FPP Monitoring Program, including development, and implementation of, field- and non-field-based vegetation monitoring strategy. Key components proposed include:

- The ACCG's Monitoring Group's Monitoring Strategy (2016) will be used as the framework for the development of the FPP Monitoring Program and Strategy with guidance from other sources (e.g., Tahoe Central Sierra Initiative Framework of Resilience, Manley et. al, 2020; Collaborative Forest Landscape Restoration Monitoring, 2022; Pacific Southwest Region Broader Scale Monitoring Strategy, USDA FS, 2020; Regional Resource Kits, 2024; Wildfire Crisis Strategy, USDA FS, 2022a; Wildfire Crisis Strategy, Initial Landscape Investments, USDA FS, 2022b).
- ACCG's Strategy will also be reevaluated by FPP to craft a more comprehensive evaluation of co-benefits and a realistic pathway to adaptive management.
- To address landscape scale monitoring questions, the FPP Monitoring Strategy intends to incorporate remote sensed data and other tools (e.g., Planscape, 2024; Regional Resource Kits, 2024) to provide additional, non-field-based information to inform the Effectiveness Monitoring at a landscape scale.
- As part of the FPP Monitoring Strategy, a field-based monitoring network would be developed. Conversely, the field-based monitoring data collected as part of the FPP Monitoring Program is intended to be shared to inform tools like Planscape (2024).
- The FPP Monitoring Strategy would also incorporate Indigenous Traditional Ecological Knowledge (TEK) principles and development, and implementation of, monitoring effectiveness and co-benefits of cultural-related vegetation treatments implemented under FPP Phase 2.
- Develop and maintain an FPP Monitoring Program ArcGIS online platform to enhance and support the understanding, collection, management, sharing and use of the monitoring data.