



The Sierra Meadows Partnership

Collaborative meadow
restoration and protection

March 17, 2017

Matt Rodriguez, Secretary for Environmental Protection; Ken Pimlott, Cal Fire Director; and, John Laird, Secretary for Natural Resources
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

RE: Draft Cap-and-Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-17 through 2018-19

Submitted via email to: fcacalfire@fire.ca.gov.

Dear Secretaries Rodriguez and Laird and Director Pimlott:

The Sierra Meadows Partnership appreciates the opportunity to provide input on the Draft California Forest Carbon Plan (Plan).

The Sierra Meadow Partnership (Partnership) was formed to foster expansion and more effective collaboration among partners currently engaged in meadow conservation to increase the pace, scale and efficacy of meadow restoration and protection in the Sierra and Modoc Plateau - for the benefit of people and ecosystems.

Born out of an AB 32 Cap and Trade funded project to assess GHG dynamics in Sierra meadows, and spearheaded by California Trout, the Partnership has expanded to include representatives from a number of public, private and non-profit natural resource organizations, academia and funding institutions. Informed by leading scientific, academic, and conservation experts, the Sierra Meadows Partnership together has built the Sierra Meadows Strategy (Strategy), which is available [here](#). The Strategy outlines a plan to restore and protect 30,000 acres of mountain meadows in California within 15 years (2030). The Strategy is underscored by a Memorandum of Understanding (MOU) formalizing this collaborative approach, signed on January 12, 2017 by the Pacific Southwest Region of the U.S. Forest Service and CalTrout, and formally endorsed by multiple signatories.

The Partnership is encouraged to see the Strategy referenced in the Forest Carbon Plan (pg. 31) and with its recognition of the critical role that healthy meadows play in the hydrologic and ecologic processes that sustain California's headwaters and strengthen forest resiliency.

At the third Meadows Workshop in February 2017, attended by roughly 70 stakeholders, a consensus-based prioritization of actions necessary to achieve the goals of the Strategy was established, providing guidance for the implementation of the Strategy. Many of the priorities identified by the Partnership at Calistoga- and recommended herewith - are echoed in the overarching Plan including research, landowner engagement, capacity building and public communications.

In addition to incorporating the Strategy goal of 30,000 acres of meadow restored by the year 2030, the Partnership recommends that the Plan incorporates the following approaches toward increasing the pace, scale and efficacy of meadow restoration - as identified in the Strategy and further refined during the third Meadows Workshop.

Research

In order to ensure that restoration efforts have a rigorous scientific underpinning, the Partnership recommends a two-fold approach. First, all restoration efforts need to be monitored using standardized methods that are cheap, easy and replicable. In order to facilitate inter-comparison and progress, these data need to be housed in a centralized database. Trainings and protocols regarding monitoring need to be widely distributed to all restoration practitioners. Second, sentinel sites need to be selected for long-term monitoring in order to track the progress of restorations and assess vulnerability of meadows to climate change. The selection of where to direct resources for future restoration efforts will be informed by existing geospatial data and will be improved by data from long term monitoring at sentinel sites. This approach will be used to prioritize future restoration efforts to protect the most sensitive species and the most critical ecosystem services first, as well as to establish the efficacy of carbon market exchanges.

We believe research should be focused on two driving questions:

- i. What are the most effective restoration techniques for current and newly proposed projects to restore/support meadow function and biodiversity, including their contributing areas?
- ii. What meadows and associated processes and ecosystem services (including biodiversity) are most vulnerable to potential loss of soil resource (carbon), climate change associated changes in water inputs and water balance (increased temperatures), and loss of biodiversity? What meadows are likely to be most resilient?

Recommendations

1. Develop guidance in determining the ROI of restoration methods, based on:
 - Sufficient data to compare ecological functions pre- and post-restoration across spatial and temporal scales
 - Monitoring metrics and methods that are widely applicable and applied
 - Suite of methodologies for adaptive management of the techniques (communication, people embrace failure and share it)
 - Training materials for on-going high quality monitoring and data management
 - Increased monitoring capacity throughout Strategy area
2. Complete assessments of meadow vulnerability and resilience to climate change - linked to species distributions and other key meadows ecosystem services, including:
 - Map of meadow vulnerability to Climate Change and Land Use Change
 - List of primary sources of vulnerability (spatial) and primary things that are vulnerable (spatial)
 - Supported prioritization methods for maximizing positive outcomes from restoration

- Supported landscape and regional context for reporting outcomes of one and multiple restoration projects
- Improved linkage to watershed and landscape scale processes that effect meadows and that meadows affect (e.g., fire in watershed, downstream dams, etc.)

In addition to investing in the science strategies outlined above, the Partnership suggests that the funding source establish an endowment for long-term monitoring, requiring grant recipients to apply these metrics and contribute the collected data.

Landowner engagement

With the USFS and State Parks as active signatories in the Partnership the primary goal for landowner engagement is focused on incentivizing private landowners to protect and restore meadows in perpetuity.

Recommendations

1. The formation of a private landowner strategy team to build understanding, develop meaningful incentives, remove disincentives, develop safe harbor provisions and establish a cooperative monitoring program that measures conservation benefits and grazing impacts.
2. Develop Best management Practices that show mutual benefits and provide resources for shared meadow restoration success.
3. Offer fair market value to acquire fee interest or conservation easement to permanently protect and restore meadows and safeguard restoration benefits into the future. Develop easement language that encourages meadow enhancement and restoration.
4. Communicate benefits (please see communications section below).

Permitting

Noting the limiting factor of the permitting bottleneck on meadow restoration – where permitting often takes longer and costs more than the restoration itself, the Partnership recommends the following actions to enhance regulatory capacity and coordination.

Recommendations

1. Streamline permitting processes in collaboration with agencies. Work toward programmatic approaches at the forest District level, batch permits, and an improved collaborative process for NEPA/CEQA to occur at the same time as other permitting processes.
2. Develop a sample set of data needed for permit applications, NEPA/CEQA, to help guide comparable project data collection and contribute to the larger meadow research questions.

Implementation

Implementation of meadow restoration is limited by capacity – a lack of skilled practitioners and tested techniques. To increase the pace, scale and efficacy of restoration projects we must increase skill and capacity.

Recommendations

1. Capacity: Increase the number and diversity of restoration designers and practitioners with the skills to implement the meadows strategy.

2. Restoration Skills: Increase the pace, scale and efficacy of meadow restoration techniques through improved meadow ecosystem assessment and restoration guidance.

Communications

The Partnership recognizes the communication of meadow restoration benefits as a key to increasing capacity.

Recommendations

1. Identify stakeholders and target audiences – including private timberlands, cattle ranchers, local headwaters communities and water supply end users (Southern Californians).
2. Develop a public information media campaign to highlight the multiple benefits of meadow restoration leveraging the partnership network.

We respectfully request the Agencies consider adopting our recommendations into the Plan for the benefit of forests, water resources, wildlife and GHG sequestration. The Partnership would be happy to meet with CFP representatives to discuss these comments further.

Sincerely,



Mark Drew, Ph.D., on behalf of The Sierra Meadows Partnership
California Trout Sierra Headwaters Program Director
mdrew@caltrout.org