

**EXHIBIT A
PROPOSAL COVER PAGE**

Proposal Type

Concept Proposal for Demonstration Projects and Processes

Organization Name (Lead Applicant)

Mattole Restoration Council

Organization Type

- Federally recognized Indian Tribe
- California State Indian Tribe
- Public agency
- Local or state agency/special district
- Resource Conservation District
- Non-profit organization
- Public utility
- Other: _____

Contact Name/Title

Name: Hugh McGee

Title: Program Director

Email: hugh@mattole.org

Phone Number (include area code): 707-629-3514

Organization Address (City, County, State, Zip Code):

29230 Mattole Road Petrolia, CA 95558-0160

Authorized Representative (if different from the contact name)

Name: Sarah Vroom

Title: Executive Director


Email: vroom@mattole.org

Phone Number (include area code): (707) 629-3514

Certification of Authority

By signing below, the person executing the certificate on behalf of the proposer affirmatively represents that s/he has the requisite legal authority to do so on behalf of the proposer. Both the person executing this proposal on behalf of the proposer and proposer understand that the NCRP is relying on this representation in receiving and considering this proposal. The person signing below hereby acknowledges that s/he has read the entire Request for Proposals document and has complied with all requirements listed therein.

Official Authorized to Sign for Proposal



Signature

March 12, 2020

Date

Prosper Ridge Prairie Restoration Project Statement of Qualifications

Mattole Restoration Council

Since 1983, the Mattole Restoration Council has been a leader in ecological restoration and environmental education on the North Coast. Over the years we have partnered with many federal, state, and local agencies as well as foundations and other non-profit groups to implement habitat restoration projects throughout the Mattole Watershed, the King Range National Conservation Area, and adjacent watersheds. We have successfully partnered on previous high priority restoration projects with NCRP. Our work includes ecosystem restoration, fuels reduction, sediment reduction, monitoring and environmental education and outreach. We are licensed contractors.

Currently, the MRC is actively implementing large scale habitat restoration projects including:

Prosper Ridge Prairie Restoration Project: Phase 1-6

Tasks: Mechanical Removal of 300 acres of encroaching vegetation, installation of 500 lbs of native seed and 120,000 native grass plugs

Project Partners: BLM, RMEF

The Lower Mattole and Estuary Riparian Habitat Enhancement Project

Tasks: Excavation of 1500' of slough channel, installation of 25,000 ft. willow baffles, propagate and install of 25,000 native plants, placement of 600 whole trees with helicopter

Project Partners: BLM, NCRP, SCC, USFWS, DWR, CDFW, Mattole Salmon Group

Redwoods to the Sea Fuel Resiliency Project

Tasks: 250 acres of fuels reduction along a shaded fuel break

Project Partners: BLM, Cal Fire, Save the Redwoods League, Stansberry Ranch

Mattole Oak Woodland Enhancement

Tasks: Provide technical assistance to oak woodland landowners and implement oak woodland restoration projects

Project Partners: NRCS, UC Coop Ext., USFWS

Key Staff and Collaborators

Hugh McGee – MRC Program Director

Hugh holds a bachelor's degree in Environmental Science from the University of Vermont. After attending UVM he worked for a private ecological restoration firm in Montana and California where he managed wetland, riparian, and mine restoration projects throughout the western US. Since then he has worked for the National Park Service and private firms, and as a private contractor designing, managing, and implementing various ecological restoration projects. Hugh has worked for the Mattole Restoration Council for the last 14 years and is currently the director of the Native Ecosystem Restoration Program as well as Safety and Contracting Officer. As director he oversees NER programs including invasive plant control, sudden oak death control, oak woodland restoration, native plant materials and directly designs and manages all riparian and grasslands restoration projects. He is certified by the Society of Ecological Restoration as a Certified Ecological Restoration Practitioner and holds a California State Contractors License.

Hugh will be managing all aspects of the project including design, planning, and implementation oversight.

Veronica Yates – MRC Native Plant Nursery Manager

Veronica has been involved with various programs at the MRC since 2014, beginning as a field crew member. In 2015-2016 she served as a member of the AmeriCorps Watershed Stewards Program here in the Mattole, where she helped build our new and improved native plant nursery and participated in many different local and regional restoration and education programs. She has managed the nursery from 2016-2020, She holds a B.S. in Chemistry with a concentration in Environmental Chemistry from UC Santa Cruz.

Veronica will be overseeing all native plant propagation activities on the project.

Jennifer Wheeler - BLM -Native Plant, Livestock grazing, Invasive Weed programs

Jennifer Wheeler is a Botanist with the Bureau of Land Management, who has managed native plant, livestock grazing, and invasive plant programs since 1991. With nearly 30 years of professional land management experience and 27 of those located principally in the Arcata Field Office (that contains the Prosper Ridge project area), she has instigated, developed and participated in grassland conservation and livestock grazing management on Prosper Ridge for decades. Jennifer is a key player in the project's ongoing collaborative success and she holds a Bachelor of Science degree in Rangeland Resource Science with a minor emphasis in Botany from Humboldt State University. She also studied wildlife management and game ranching in East Africa with the School for Field Studies in 1989.

Jennifer will continue as a collaborative partner in overall direction, restoration species selection, seeding and propagation choices, treatment area prioritization, monitoring methods, Assistance Agreement support, and range user and interdisciplinary team coordination.

Alex Miyagishima – BLM Prescribed Fire and Fuels

Alex has worked with USFS and BLM as a fire and fuels specialist. He will be overseeing pile burning and broadcast burning on the project.

William J. Etter Construction

Etter Construction has worked with the MRC on many projects over the past 20 years including sediment reduction, riparian habitat restoration, and native grasslands restoration. Etter construction will be implementing vegetation removal task on this project. The equipment they will provide includes excavators, wheel loader, and a bulldozer. They are Class A California Licensed Contractors.

Edwards Excavation and Restoration

Edwards Excavation and Restoration has worked with the MRC since 2019 and has been implementing habitat restoration project on the Eel River and Mattole River for over 20 years. They are currently working on a fuel break with the MRC and providing vegetation removal services (masticator). The equipment they will provide includes excavators, masticator, wheel loader, and a bulldozer. They are Class A California Licensed Contractors.

Prosper Ridge Prairie Restoration Project

1. Project Description

Northern California grasslands ecosystems are rapidly being lost to vegetation encroachment due to fire suppression. This change in drought tolerant and fire adapted vegetation to fire prone vegetation has resulted in: 1) loss of habitat that is critical for the protection of native plant and wildlife communities that depend on these ecosystems, 2) a loss of ecosystem function resulting in a reduction in soil health and change soil biology and groundwater storage capacity, and 3) an increase in fire hazard to adjacent human communities and forests.

Since 1970, nearly 50 percent of historic grasslands in the Mattole Watershed and King Range National Conservation Area (KRNCA) have been lost to native and non-native vegetation encroachment, primarily encroachment of Douglas-fir and coyote brush. This rapid vegetation change has resulted in the loss of important native grassland habitat and an increase in fire hazard to neighborhoods adjacent to Prosper Ridge as well as the communities of Petrolia and Honeydew.

The Prosper Ridge Prairie Restoration Project is a multi-phase coastal prairie restoration project with the goal of restoring 800 acres of historic native grasslands on Prosper Ridge in the King Range National Conservation Area (KRNCA). Between 1955 and 2014, over 60% of the grasslands within the 800 acre project site have been lost to vegetation encroachment. To mitigate this ongoing threat, the Mattole Restoration Council (MRC) has been collaborating with the Bureau of Land Management, local landowners, and local licensed contractors since 2014 to implement the project. The project includes mechanical vegetation removal, native plant restoration, and pile and broadcast burning to maintain restoration sites. To date, over 300 acres of encroaching vegetation has been removed, over 50 acres have been re-vegetated with native grass and forb seeds, and over 120,000 native grass plugs grown at the MRC Native Plant Nursery have been installed on 20 acres.

In April of 2020 through July of 2021, we will implement Phase 7 of this project. This Phase includes mechanical removal of 60 acres of encroaching vegetation, installation of native grass and forb seeds and plugs on project sites, invasive plant removal, and broadcast burning of 200 acres of previously restored project sites. Using other funding sources, over 200 whole trees removed from these grasslands restoration sites will be transported by helicopter to active salmonid and riparian habitat restoration projects adjacent to the Mattole Estuary. Permitting for this phase is complete.

The methods and results of this and previous phases are applicable to other oak woodland, grassland, and in-stream habitat restoration sites throughout Northern California. These methods and results will be presented in a North Coast grasslands restoration manual intended to provide information to other restoration practitioners and used to scale and replicate this project to other areas.

2. Specific Project Goals/Objectives

Goal: Restore Grassland Ecosystems, Reduce Hazardous Fuel Loads, and Educate Community Members and Restoration Practitioners

Objective 1. Removal and Maintenance of Encroaching Vegetation

- Mechanically remove 50 acres of encroaching Douglas-fir and coyote brush from historic grasslands with excavator and/or masticator; pile and burn piles
- Mechanically remove and thin 10 acres of roadside vegetation that connects the project site to adjacent neighborhoods with excavator and/or masticator; pile and burn piles
- Maintain project sites through periodic broadcast burning

Objective 2. Native Plant Restoration

- Design plant pallets based on previous success and input from tribal advisors using TEK
- Propagate 50,000 native grass and forb plugs at the MRC Native Plant Nursery
- Prepare soils at removal sites for native plant installation through grading and disking
- Install 1,500 lbs of native forb and grass seed on project sites through direct seeding
- Install 50,000 native grass plugs
- Remove invasive plants from project area
- Monitor restoration sites

Objective 3. Education and Outreach

- Host a wildland fire certification for community members, volunteer firefighters, and staff members (S-130, S-190, L-180, IS-700A, Pack Test)
- Host on-site workshops to restoration practitioners of how to produce and source native plant materials for oak woodland and grasslands restoration projects
- Host on-site workshops to community members and restoration practitioners that describes project methods, techniques, effectiveness, adaptive management, and how to scale restoration methods to other project areas
- Produce a manual on North Coast Grasslands Restoration that presents methods and techniques to implement landscape level grassland restoration projects. This will include: pre-project planning, establishing and sourcing native plant materials, equipment selection, implementation production rates and costs, monitoring and maintenance, and adaptive management.

3. Describe how the project or process addresses the NCRP Goals and Objectives and the intent of the NCRP Regional Forest and Fire Capacity Program Block Grant.

This project directly addresses NCRP Goals and Objectives through:

- **Restoring** ecosystem function and implementing **multi-objective** projects (grasslands, fuels reduction, native plant restoration, restoration bi-products for fish habitat)
- **Active Collaboration** among diverse stakeholders (BLM, ranchers, community members, HSU, ecologists)
- **Providing Jobs and Training** in a disadvantaged community
- **Monitoring** project effectiveness and adapting management based on results

This project directly addresses intent of the NCRP Regional Forest and Fire Capacity Program Block Grant by achieving the following tasks:

- **Demonstration** of a project that effectively reduces hazardous fuels, restores grasslands, increases native plant diversity, reduces invasive plants
- **Carbon Sequestration** through increasing long-term fire adapted carbon sinks (grasslands) and decreasing fire-prone landscapes that will release carbon (overstocked forests and conifer-encroached grasslands)
- **Job Training** by providing on the ground trainings for future restoration practitioners
- **Creation of a fire-safe community and protecting human assets** by increasing grassland fuel breaks and creating fire-safe roads
- **Research and Development** of ecological and cost effective restoration methods

4. Describe how the project is scalable, replicable, measurable, innovative and results in outcomes that will increase the scope and scale of multi-benefit forest management in the North Coast.

Many fuels reduction and grasslands restoration projects throughout the North Coast are highly effective at restoring the desired structure to a restoration site. For example, thinning a forest from 1000 trees per acre to 100 trees per acre or converting a conifer-encroached oak woodland to a pre-encroachment oak woodland structure. Although this method is effective at restoring the desired structure of the site and reduces hazardous fuels, it typically does not restore the historic native plant species composition that return the desired ecological processes and associated soil and habitat benefits. For example, converting a conifer encroached grassland structure to a pre-encroachment grassland structure with no native plant restoration efforts typically results in a non-native, fire-prone annual grassland with very little soil productivity and water retention capabilities, as opposed to the desired drought tolerant, fire adapted, native perennial grassland with high soil productivity, water holding capabilities, and other habitat and aesthetic benefits.

The Prosper Ridge Prairie Restoration Project provides an innovative approach to grasslands restoration and fuels reduction because it targets both structural and functional restoration on the project sites. This is achieved by restoring the historic ecosystem structure (grassland) through mechanical removal of vegetation, as well as the historic native plant species composition (native forbs and perennial grasses) through native plant installation.

The MRC has been implementing grassland, oak woodlands and fuels reduction projects for over 15 years. The data collected from this project and previous projects will provide other restoration practitioners with the information they need to effectively scale and replicate these methods on other restoration areas. The main project objectives can be effectively replicated on other projects and scaled to fit the project goal, scope and budget.

Increasing the scale and scope of these project methods to landscape level restoration projects will have a beneficial impact on North Coast grasslands, oak woodlands, and forests.

5. Describe the need for the project and how the project addresses forest health and climate change/extreme event resiliency.

Grassland ecosystems are being rapidly lost in Northern California due to vegetation encroachment as a result of fire suppression. This project provides an opportunity to restore and protect these important ecosystems while reducing the threat of wildfire to adjacent human communities and forests. It also provides an opportunity to sequester carbon into long-lived, fire adapted native prairies as opposed to dense stands of fire prone Douglas-fir stands. More data is showing that North Coast grasslands provide a long-term solution to carbon sequestration because carbon is stored in the ground, away from fire hazard as opposed to dense forests, which are likely to burn and release carbon.

The need to share information with other collaborators is essential to reducing hazardous fuels and restoring grassland ecosystems. This project will provide a demonstration to other restoration practitioners on the appropriate planning and restoration methods required to implement landscape level native grassland restoration and fuels reduction.

6. Describe the location and size of the project and the communities served by this project.

This project is located in Petrolia, California in the County of Humboldt. All proposed implementation will take place on Prosper Ridge, located in the King Range National Conservation Area and on adjacent private lands. Native plant propagation will take place at the MRC native Plant Nursery located in downtown Petrolia. The total project size is 800 acres. The work proposed in this application totals 60 acres. This project serves the Prosper Ridge neighborhood which is located adjacent to the project sites, visitors to the KRNCA, and the communities of Petrolia and Honeydew.

7. List and describe the partnerships involved in the project and local and/or political support.

Mattole Restoration Council – On the ground planning, design and implementation

BLM Arcata – Planning, design and funding

Lost Coast Beef – Lessee of grazing allotment and collaborator

USFWS – Collaborator and funder for on-site native plant restoration studies

Humboldt State University – Research on carbon storage effectiveness on restored grasslands

UC Santa Cruz – Research on Coastal Prairie Restoration effectiveness throughout Northern California and will be monitoring our project sites to assess restoration effectiveness in terms of native plant cover and public perception.

8. List the estimated quantifiable, measurable benefits expected to result from the proposed project.

- Acres of hazardous fuels removed – 60 acres
- Quantity of individual trained and educated on-site – 50 people
- No. of individual trained and educated through materials and social media – 1000 people
- Acres of grasslands restored – 60 acres
- Miles of fire-safe roads created – 1.6 miles
- Number of individuals protected from wildfire - 800

9. List any scientific studies, plans, designs or reports completed for the project or process.

Prosper Ridge Prairie Plan - EA # DOI-BLM-CA-N030-2013-0002 (BLM) Arcata, CA
NEPA planning document that permits all proposed activities on BLM lands

Prosper Ridge Native Plant Re-vegetation Study – USFWS funded a research project to MRC to determine effectiveness of native plant re-vegetation treatments during Phase 4-6. The study is still in process.

UC Santa Cruz – Coastal Prairie Restoration Effectiveness - Justin Luong, PHD student at UC Santa Cruz is looking at Coastal Prairie Restoration effectiveness throughout Northern California and will be monitoring our project sites to assess restoration effectiveness in terms of native plant cover and public perception.

Humboldt State University – Coastal Prairie Restoration Effectiveness Kerry Byrne, Rangeland Professor at HSU is looking at effects of restored prairies on soil carbon and native species composition.

MRC Project Implementation Reports – 2014-2019

Reports detailing completed project tasks and methods, implementation production rates, and project costs.

10. Describe the approach to data collection, performance measures, and project reporting of outcomes/lessons learned.

Project Implementation and Cost Data

Pre-project data and drone photos are collected on all vegetation removal sites to determine stand characteristics, vegetation type and densities. This data is used to compare with previous treatment data to estimate anticipated cost per acre for contractor bidding process and future funding and planning. When applicable on larger removal areas, we also use Ecognition Mapping Software and drone photos to classify vegetation types prior to soliciting bids for mechanical removal. This allows us to have accurate estimates of how many acres of each vegetation type (grass, brush, conifer) is located with the treatment unit and what those associated cost will be.

Project Effectiveness Measures and Data Collection

All native plant restoration sites (seeding and plugs) are monitored for cover and survival over a 5 year period. This data is used to adapt our seed mixes and plant palettes for success on future project sites. The target performance measures that are set depend on the project site. In addition, the research being completed by UC Santa Cruz, HSU and MRC will help guide future native plant restoration design throughout the North Coast.

Project Reporting

All data, project implementation information, and lessons learned will be included in final report as well as the Manual on North Coast Grasslands Restoration.

NCRP DEMONSTRATION PROJECT AND PROCESSES CONCEPT PROPOSAL BUDGET AND SCHEDULE

Project Name: Mattole Restoration Council -Prosper Ridge Prairie Restoration Project

Major Tasks	Task Description	NCRP Task Budget	Funding Match *	Total Task Budget	Scaled NCRP Budget **	Start Date	End Date
Project Administration	In cooperation with the County of Humboldt sign a sub-grantee agreement for work to be completed on this project. Develop invoices with support documentation.	\$2,000.00	\$2,000.00	\$4,000.00	\$2,000.00	4/1/20	3/31/21
Project Management	Constrcution oversight, planning, meetings, reports	\$6,000.00	\$5,000.00	\$11,000.00	\$6,000.00	4/1/20	3/31/21
Vegetation Removal	Mechanical Vegetation Removal, Piling, Grading (Sub- Contractors) Pile and Broadcast burning (BLM)	\$111,000.00	\$115,000.00	\$226,000.00	\$90,000.00	4/1/20	3/31/21
Native Plant Restoration	Propagate 50,000 grass plugs, provide 1500 lbs seed, plant installation, monitoring, invasive plant removal	\$98,600.00	\$82,500.00	\$181,100.00	\$70,000.00	4/1/20	3/31/21
Education and Outreach	Workshops, Wildland Fire Training, and Creation of North Coast Grasslands Restoration Manual	\$30,000.00	\$0.00	\$30,000.00	\$30,000.00	4/1/20	3/31/21
Total NCRP 2020 Demonstration Project Request		\$247,600.00	\$204,500.00	\$452,100.00	\$198,000.00		
<p>* List the sources and status of matching funds: BLM \$190,000 (Secured) USFWS \$2000 (Secured) MRC In- Kind \$12,500 (Secured)</p>							
<p>** Is Requested Budget scalable? If yes, indicate scaled totals; if no leave as \$0. Project scalability information for the reviewers (optional): Vegetation removal and Native Plant Restoration tasks are scalable. Less acres would be removed and less plants would be installed.</p>							