

EXHIBIT A PROPOSAL COVER PAGE

Proposal Type: Concept Proposal for Demonstration Projects and Processes

Organization Name (Lead Applicant): Conservation Biology Institute

Organization Type: Non-profit organization

Contact Name/Title:

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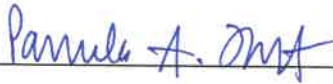
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Certification of Authority:

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: Pamela Frost

Signature _____



Date May 22, 2020

A Multi-Agency Strategy for Implementing Wildfire Hazard Reduction Projects in the Lake Sonoma Watershed

Organization Statement of Qualifications

Project Lead: Conservation Biology Institute

[Conservation Biology Institute](#) (CBI) is a nonprofit corporation founded in 1997 dedicated to conservation of biological diversity through applied research and monitoring, software development, education, planning, and community service. CBI offers scientific and technological expertise, facilitates collaboration, and provides decision support tools related to landscape conservation planning, natural resource management, and monitoring. Our diverse [team of professionals](#) consists of biologists and ecologists, communication specialists, modelers, GIS and data specialists, and software engineers.

CBI stakeholder engagement and spatial analysis experts will work with the scientists and stakeholders on this project to create the multi-benefit forest treatment prioritization process and coordinated strategy.

Selected recent and current examples of relevant projects:

Paradise Nature-Based Fire Resilience Project

In this currently ongoing project, CBI, The Nature Conservancy, and the Paradise Recreation and Park District are partnered to explore community design and fuels reduction elements to increase the community's resilience to fire and climate change, enhance the safety and well-being of its residents, and successfully steward the surrounding natural areas. CBI conducted a review of the relevant scientific literature concerning land use approaches to fire risk reduction and led a group of scientists and stakeholders in the development of a process to prioritize parcels for fire risk reduction measures. The resulting "Wildfire Risk Reduction Buffer" scenarios with analyses of potential benefits, management opportunities, and relative costs will help the people of Paradise plan and implement these new ideas as they rebuild their community.

Key CBI Staff: Deanne DiPietro, Kai Foster, Heather Romsos, Alexandra Syphard

Reference: Sarah Newkirk, Director of Disaster Resilience, TNC, snewkirk@TNC.ORG, (415) 730-7437

RePlan: Regional Conservation and Development Tool

In partnership with the Strategic Growth Council, CBI created and continues to develop RePlan (<http://replan-tool.org/>), an online tool to improve the efficiency, effectiveness, and transparency of California's regional conservation planning processes. The tool synthesizes up-to-date biological and ecological data to identify areas best suited to implement defined conservation and development goals. CBI recently added a custom tool for the California Department of Food and Agriculture's Healthy Soils Program to evaluate parcels for climate change adaptation best management practices (see [article here](#)).

Key CBI Staff: Jim Stritholt, Deanne DiPietro, CBI's Development Team

Reference: Denny Grossman, Senior Advisor for Environmental Science and Policy, Strategic Growth Council, denny.grossman@sgc.ca.gov, 916 324-6662.

Sierra Nevada Forest Resilience and Treatment Planning

Over the years CBI has provided science and modeling support to the U.S. Forest Service, conducting analyses for region-wide planning under the Sierra Nevada Forest Resilience Initiative. At present CBI is developing a spatial analysis process that links the USFS's dynamic forest growth model Forest Vegetation Simulator (FVS) with a landscape resilience model to evaluate treatment options for fire and drought resilience benefits, wildlife habitat, and protection from erosion and downstream impacts. We are working with the Service's remote sensing lab to map forest resilience on the landscape in an effort to plan species recovery and prioritize watersheds for management actions.

Key CBI Staff: Wayne Spencer, Deanne DiPietro, Heather Romsos, Craig Thompson

Reference: Sarah Sawyer, Regional Wildlife Ecologist, US Forest Service, sarah.sawyer@usda.gov, 707-562-8924

[Modeling the Potential for Large High-Severity Fires in the Klamath Basin Region of California and Oregon and Their Potential Impacts on Marten and Fisher](#)

CBI partnered with the U.S. Fish & Wildlife Service and U.S. Forest Service to identify locations important for the Pacific marten and its close relative, the Pacific fisher, in the Klamath River Basin region. The project used connectivity and fire probability modeling to identify critical linkages and habitat that are at risk of severe wildfire. The agencies are currently using the maps and models from the project to plan forest treatments and avoid species management conflicts, and to inform the Klamath Strategic Habitat Conservation Project. The 90m-resolution severe fire probability model covers much of the NCRP region.

Key CBI Staff: Wayne Spencer, Deanne DiPietro, Heather Romsos, John Gallo

Reference: Jenny Ericson, Field Supervisor, Yreka Fish and Wildlife Office, USFWS,
jenny_ericson@fws.gov, 530-841-3115.

Wildfire Modeling and Research

CBI has conducted research and modeling in support of wildfire science for over a decade. Below are selected publications:

Syphard, Alexandra D., Heather Rustigian-Romsos, Michael Mann, Erin Conlisk, Max A. Moritz, and David Ackerly. 2019. "The Relative Influence of Climate and Housing Development on Current and Projected Future Fire Patterns and Structure Loss across Three California Landscapes." *Global Environmental Change: Human and Policy Dimensions* 56 (May): 41–55.

Syphard, Alexandra D., Timothy Sheehan, Heather Rustigian-Romsos, and Kenneth Ferschweiler. 2018. "Mapping Future Fire Probability under Climate Change: Does Vegetation Matter?" Edited by Vanesa Magar. *PloS One* 13 (8): e0201680.

Syphard, Alexandra D., Robert M. Scheller, Brendan C. Ward, Wayne D. Spencer, and James R. Strittholt. 2011. "Simulating Landscape-Scale Effects of Fuels Treatments in the Sierra Nevada, California, USA." *International Journal of Wildland Fire* 20 (3): 364–83.

Scheller, Robert M., Wayne D. Spencer, Heather Rustigian-Romsos, Alexandra D. Syphard, Brendan C. Ward, and James R. Strittholt. 2011. "Using Stochastic Simulation to Evaluate Competing Risks of Wildfires and Fuels Management on an Isolated Forest Carnivore." *Landscape Ecology* 26 (10): 1491–1504.

Staff included in this work plan are listed below.

Project Personnel (CBI)

Deanne DiPietro, M.A.

Senior Science Coordinator

Role on Project: Project Manager and Partner Coordinator

Deanne DiPietro is a geographer specializing in conservation project management, stakeholder engagement, online tool and digital library development, and environmental and climate change science communication. Ms. DiPietro is a Sonoma County resident and native. She has worked with environmental organizations at the national, state, and local levels with a focus on making science understandable and accessible to conservation decision-makers, and has extensive experience convening stakeholders for co-production of conservation solutions. Ms. DiPietro is located in Rohnert Park, CA.

Hourly rate: \$102/hr.

Please see Ms. DiPietro's [curriculum vitae](#).

Heather Romsos, M.S.,

Modeler and GIS Analyst

Role on Project: Fire and landscape analysis specialist

Heather Romsos is a conservation scientist, spatial analyst, and modeler with 20 years of experience in applied ecological GIS analysis and modeling. She specializes in spatially-explicit modeling of fire probability, wildlife habitat, connectivity, and wildlife populations as well as analyses of the relationships between them. Ms. Romsos is located at CBI Headquarters in Corvallis, OR.

Hourly rate: \$96/hr.

Please see Ms. Romsos' [curriculum vitae](#).

Kai Foster, M.A.

GIS Analyst

Role on Project: Data and analysis specialist

Kai Foster is a geographer and spatial analyst with 10 years of professional experience in spatial data development, data management and stakeholder engagement specializing in communication of conservation data to a diverse community of consumers. She has worked on citizen-driven spatial data development, spatial data tool design and modeling, user training, and public outreach, traditional ecological knowledge and areas of cultural and ecological significance. Ms. Foster is located at CBI Headquarters in Corvallis, OR.

Hourly rate: \$78/hr.

Please see Ms. Foster's [curriculum vitae](#).

Sub-contractors

Lisa Micheli, PhD

President and CEO, Pepperwood Foundation

Role on Project: Chair of Technical Advisory Group

Dr. Micheli is a leader in large landscape conservation who specializes in facilitating interdisciplinary collaborations focused on using relevant research to craft collective solutions to today's most pressing landscape conservation challenges. At Pepperwood, she leverages the 3200-acre research reserve founded by the California Academy of Sciences and the Dwight Center for Conservation Science to build the resilience of Northern California's people, land, water and wildlife. Pepperwood is currently managing projects geared toward equipping local landowners with data and decision-support to implement fuels reduction projects in Sonoma County's forested lands. Dr. Micheli brings critical insights into forest resilience and fire risk reduction as well as in-depth connections into the land management community to this project.

Stephanie Larson, PhD

Director, University of California Cooperative Extension (UCCE), Sonoma County

Role on Project: Lead for Task 2: Parcel-scale Fuels Treatment Site Prioritization

Dr. Stephanie Larson promotes research and extension programs in Sonoma County, along with her role as the Livestock and Range Management Advisor. She addresses climate change, food production, and ecological and economical management of working landscapes in Sonoma and Marin Counties. Dr. Larson assists local livestock producers to improve production and marketing of livestock, conducting research in the wise stewardship of lands, humane methods of predator control, and sustainable agriculture for the livestock industry. Her program documents and integrates the ecosystem services provided by rangelands, highlighting the benefits of using grazing animals as tools to address vegetation management, reduced fire fuels, improved habitat, and increased forage production. She is a licensed certified rangeland manager; she brings public and private land owners and managers together to make science based decisions and policies to manage working landscapes for the benefit of all users.

Other Key Partners

Anne Crealock, M.S., FFT2

Senior Environmental Specialist, Sonoma Water

Role on Project: Key Member of the Stakeholder Group

Anne Crealock specializes in climate change adaptation, fire risk reduction, natural resources management, and environmental impact analysis and compliance. Anne serves as co-project manager of the FireSmart Lake Sonoma program, serves a lead role in developing Sonoma Water's strategic plan and climate adaptation plan, and serves on the steering committee for a local prescribed burn association using her Firefighter Type 2 (FFT2) training to conduct prescribed burns.

Jay Jasperse

Chief Engineer and Director of Groundwater Management, Sonoma Water

Role on Project: Key Member of the Stakeholder Group

Jay Jasperse manages Sonoma Water's multi-agency collaborations related to climate change adaptation, such as research related to atmospheric river events; Advanced Quantitative Precipitation Information, which improves the region's ability to accurately predict rainfall; Forecast Informed Reservoir Operation at Lake Mendocino, which incorporates science-based models and tools to better manage reservoir releases; development of a comprehensive climate adaptation plan for Sonoma Water's flood management, water supply, and sanitation services; and creation of a network of fire cameras in the North Bay.

Tim Bailey

Forest Health Watershed Coordinator, Humboldt County Resource Conservation District

Role on Project: Key Member of the Technical Advisory Group

Tim Bailey is working on the Department of Conservation Regional Forest and Fire Capacity Program as a regional watershed coordinator for a seven county region. Tim is a soils geomorphologist with extensive experience across Northern California and Oregon. He studied earth sciences at UC Santa Cruz and Humboldt State University. He has taught geology at community college level and served as watershed science director for the Institute for Sustainable Forestry. He has 25 years of experience working with geospatial technology. He is currently on the board of the California Forest Soils Council.

Marshall Turbeville

Fire Chief, Northern Sonoma County Fire Protection District

Role on Project: Key Member of the Stakeholder Group

Marshall Turbeville has served as the Fire Chief of the Northern Sonoma County Fire Protection District since 2013 which provides fire and emergency services for 273 square miles of Sonoma County including the Lake Sonoma Watershed. Marshall has bachelor of science degrees from Cal Poly, San Luis Obispo in Civil Engineering and Natural Resources Management. Marshall has been involved with pre-fire planning, GIS, firesafe efforts, and fuels treatment since 2003. The District has obtained grant funding to staff a fuels reduction crew that has been performing roadside fuels reduction along roads including public roads in the Lake Sonoma watershed. Marshall has attended wildland fire behavior classes including S-590. He instructs forestry and fire behavior classes at the Santa Rosa Junior College.

Mark Tukman, M.S.

Principal, Tukman Geospatial LLC

Role on Project: Key Member of the Technical Advisory Group

Mark Tukman is a digital mapping specializing in using GIS and remote sensing to map land use/land cover over large areas. In a joint program of the [Sonoma County Agricultural Preservation and Open Space District](#) and the [Sonoma County Water Agency](#), Mr. Tukman's team produced the [Sonoma Veg Map](#), a suite of fine scale data products including countywide LiDAR data and a fine scale vegetation and habitat map that provide an accurate, up-to-date inventory of the county's landscape features, ecological communities and habitats. Mr. Tukman is currently working with Pepperwood Preserve to create high-resolution ladder fuels maps and a tool for accessing these and other critical data for Sonoma County forest management. Mr. Tukman will participate on the Technical Advisory Group, bringing expertise and assistance for identifying relevant data resources and integrating high-resolution vegetation and fuels data for Sonoma County.

Alexandra Syphard, PhD

Chief Scientist, Sage Underwriters

Role on Project: Scientific Advising

CBI works closely with [Dr. Alexandra Syphard](#), a research ecologist who investigates landscape change that results from the interplay between human and natural disturbances, especially wildfire, urban development, and climate change. She will provide scientific advising on this project.

EXHIBIT B
DEMONSTRATION PROJECT AND PROCESSES CONCEPT PROPOSAL
BUDGET AND SCHEDULE

Project Name: A Multi-Agency Strategy for Implementing Wildfire Hazard Reduction Projects in the Lake Sonoma Watershed

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.	\$10,170	\$0	\$10,170	\$0	Aug 2020	July 2021
Project Reporting	Data collection, performance measures, and project reporting of outcomes/lessons learned	\$10,170	\$0	\$10,170	\$0	Aug 2020	July 2021
Task 1	Task 1: Region-wide Fuels Treatment Prioritization Strategy	\$135,558	\$25,000	\$160,558	\$0	Aug 2020	April 2021
Task 2	Task 2: Region-wide Landowner Support Strategy and Direct Landowner Support	\$84,600	\$20,400	\$105,000	\$0	Aug 2020	July 2021
Total NCRP 2020 Demonstration Project Request		\$240,498	\$45,400	\$285,898	\$0		
<p>* List the sources and status of matching funds: Sonoma County Water Agency - \$25,000 for staff time and facilities (secured) UC Cooperative Extension - \$20,400 for staff time (secured)</p>							
<p>** Is Requested Budget scalable? If yes, indicate scaled totals; if no leave as \$0.</p>							
<p>Project scalability information for the reviewers (optional):</p>							

EXHIBIT C

CONCEPT PROPOSAL FOR DEMONSTRATION PROJECTS AND PROCESSES

Project Name: A Multi-Agency Strategy for Implementing Wildfire Hazard Reduction Projects in the Lake Sonoma Watershed

Project Description

Strategic, coordinated planning of forest and rangeland management and fuels treatment work is needed to maximize multi-benefit results for the available funding and resources.

The lack of a common decision-making framework hinders strategic planning across organizations that are funding, supporting, and implementing this work together with local landowners. Communities throughout the North Coast Resource Partnership region are facing this challenge.

This project will create a stakeholder-driven multi-organizational strategy for fuels treatment work and apply it to increase landowner engagement and implementation in the Lake Sonoma watershed.

The project is built upon existing partnerships and current efforts, including the public agencies responsible for fire protection and water supply and entities supporting on-the-ground work (see Section #7 below). These programs will benefit from coordinated prioritization of the properties and landowners they are targeting for forest and rangeland fire risk reduction practices. The partners will align their fuels reduction planning efforts, identify properties and landowners, and provide direct assistance in planning vegetation treatment techniques, assessing costs, and applying for funding.

By supporting and implementing coordinated landscape-level prioritization of fuels reduction projects this project helps restore forest health and wildfire resiliency, the principal goal of the Regional Forest and Fire Capacity Program. The resulting regional strategy will allow stakeholders to maximize their investment of limited resources and generate innovative solutions. The project will result in increased landowner acceptance to assess risk on their own properties, encouraging other landowners to adopt these practices. Lessons learned, a decision-making framework, and products such as a landowner guidebook, will be useful in other regions within the North Coast Resource Partnership.

2. Specific Project Goals/Objectives

The goals and objectives of this project are:

Goal 1: Develop a Region-wide Fuels Treatment Prioritization Strategy

Objectives:

- Build on existing momentum and partnerships between Sonoma Water, UC Cooperative Extension, North Sonoma County Fire Protection District, CalFire, and Pepperwood to coordinate a strategic approach to planning fuels treatment projects,

- Leverage and coordinate Pepperwood, Sonoma Water, and UC ANR's efforts to mobilize data and decision support tools for strategic fire risk reduction work in Sonoma County's forests,
- Create a shared understanding of available technical resources and their potential uses for fire risk reduction decision-making,
- Co-produce a flexible, transparent fuels treatment prioritization method to achieve multiple objectives including fire risk reduction, erosion control, and habitat protection,
- Prioritize locations within the Lake Sonoma Watershed for fuels treatment using the best available data and expert knowledge, based on the objectives of multiple stakeholder organizations
- Conduct a workshop and create a multi-agency strategy for fuels treatments in the Lake Sonoma Watershed

Goal 2: Create a Region-wide Landowner Support Strategy and Provide Direct Landowner Support Objectives:

- Conduct pre survey of land owners on their understanding of fire fuel hazards and methodologies to reduce risk,
- Conduct outreach out to private landowners (through education workshops) to advance and support the implementation of fuels treatment projects,
- Pilot test the existing data driven mapping tool on multiple scale properties in the Lake Sonoma Watershed, reevaluate the results from the pilot test, make necessary changes to the tool, working with IGIS at UC Davis,
- Scale up the program by using the regional multi-agency strategy from Goal 1 to identify an additional 4-6 properties for outreach and support and a plan to reach 25% of the total properties in the watershed;
- Assist landowners in applying for cost share for practices implementation, work with agency groups, such as Natural Resource Conservation Service (NRCS) and Resource Conservation Districts (RCDs),
- Provide incentives for landowners, to encourage application to state and federal cost share programs,
- Conduct post survey on educational knowledge gained from outreach efforts.

Goal 3: Create a model process for prioritizing fuels treatments that is applicable to other communities in the NCRP region.

Objectives:

- Define a clear framework for leveraging technical resources to coordinate across organizations for strategic, effective fuels treatment work,
- Create informational guidebook on how to use the tool, apply for cost share funding, and practices implementation,
- Develop a scalable, transparent method for creating a prioritization system using available data.

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.

In support of the NCRP Goals and Objectives and the intent of the RFFCP Block Grant, this project will:

- Support collaborative planning and implementation of forest health and wildfire protection, management, and restoration efforts at the watershed level,
- Provide a method to coordinate and integrate forest health and wildfire protection, management, and restoration efforts at the landscape scale,
- Identify and prioritize forestry and wildfire protection projects that meet regional and statewide public safety, ecosystem, and public resource goals consistent with the Forest Carbon Plan,

- Work across a landscape with policy makers, natural resources agencies, and property owners, resulting in funding and regulatory outcomes that will enhance landowners' ability to conduct fire fuel treatments to achieve multiple resource goals.

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.

First, this project directly increases the scope of implementation of forest and rangeland management projects in the Lake Sonoma Watershed by creating a planning strategy and using it to scale up existing activities to support landowners in project implementation. An end product of this project is the identification of additional properties to target for outreach and support, leading to an immediate doubling of shovel-ready projects and supporting the goal of 25% of properties engaged in the future. These efforts will increase awareness on how to manage rangelands and implement appropriate practices to mitigate catastrophic fires.

Second, the resulting process and analysis method will be applicable to other regions at either the watershed or larger landscape geographic scale. The method is transferable by allowing for available data to be used to evaluate the landscape for the stakeholder-identified prioritization criteria, and by providing an example and guidance for processing the data to create the inputs for the prioritization analysis. The analysis method will be implemented using a straightforward process that can be replicated by others using GIS software.

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

Since the catastrophic 2017, 2018, and 2019 fires, there has been increased awareness and need from agencies and landowners across the North Coast region for improved management of fire fuel vegetation, from both economic and ecological aspects. Landowners and the organizations funding and planning this work need to address their respective responsibilities of protecting lives and property, protecting forest health and resilience to climate change, and protecting a critical water supply. Coordinating the efforts to implement fuels treatment projects will greatly increase the return on investment of limited available resources.

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

The project will scale up a pilot project being led by UC Cooperative Extension and Sonoma Water called FireSmart Lake Sonoma. This watershed is the primary drinking water source for more than 600,000 residents of Sonoma and northern Marin Counties, California. Lake Sonoma Watershed includes approximately 230 parcels over 83,000 acres. The land is mostly privately owned and has not experienced a significant fire in many years.

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

The Project Team and Partnership:

- Conservation Biology Institute will coordinate the collaboration process, conduct the region-wide prioritization analysis, and co-lead the strategy workshop with Lisa Micheli of Pepperwood.
- Sonoma Water and Northern Sonoma County Fire Protection District are the focal Stakeholder agencies; Sonoma Water will also assist with the collaboration process.
- UC Cooperative Extension will participate as a Stakeholder and use these prioritization results as the regional context for identifying additional parcels to target, and add parcel-scale criteria and a

project cost analysis to assess a portfolio of project sites for supporting landowners.

- Pepperwood Preserve will lead the Technical Advisory Group, participate as a Stakeholder, and provide liaison to local forestry and science working groups.
- Tukman Geospatial will provide technical advice and support integration of the resulting strategy maps into the Pepperwood/UCCE forest project planning toolkit.
- Alexandra Syphard will provide scientific advising and review.
- Humboldt County Resource Conservation District will assist with engaging the region's RCDs and provide liaison to the Forest Management Task Force.

This project leverages existing efforts, including:

- Sonoma Water is invested in landowner engagement and on-the-ground fire risk reduction in the Lake Sonoma Watershed through their FireSmart Lake Sonoma program funded first by PG&E Resilient Communities grant and now by funding from CALFIRE Fire Prevention Grant program,
- Northern Sonoma County Fire Protection District is overseeing fire safety elements and guiding implementation with CALFIRE funding,
- UC Cooperative Extension is currently engaging landowners in Best Management Practices applications and qualifying for state and federal funding for fuels treatments,
- Pepperwood and Tukman Geospatial have developed a high-resolution ladder fuels data set for Sonoma County and are supporting applications relevant to both county-wide and parcel-scale plans .
- Data access tools to support parcel-scale decisions about fuels treatments are in development by UC ANR for UC Cooperative Extension in partnership with Pepperwood with PG&E and CALFIRE funding.

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

Measurable, immediate benefits of the project include:

- An actionable strategy for protection of 83,000 acres with a combined focus on water supply and reduce fire risk;
- A scaled-up strategy for implementation of fuels reduction in the Lake Sonoma Watershed, with a goal of identifying 25% of the 230 properties for outreach follow-up, or approximately 58 parcels.
- A doubling of the landowners engaged and supported to the point of implementation readiness (an additional 4-6 properties for a total of approximately 12 properties);
- Several hundred residents and property owners of the Lake Sonoma watershed will be better informed about their role in forest resilience and fire risk reduction, what types of treatments to apply, and how to get support for implementation through mailed and emailed information resources and two workshops.
- Collaboration between public agencies and local conservation efforts will support messaging and increased public understanding of the role of defensible space and vegetation management in achieving public safety, forest health, and water supply protection.

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

The project will leverage NCRP reports including "[Climate & Natural Resource Analyses and Planning for the North Coast Resource Partnership: A Technical Memorandum Summarizing Data Products](#)" (2016) that assessed North Coast natural resources using datasets including the USGS California Basin Characterization Model and related adaptation strategies (including "Healthy Watersheds, Vital

Communities, Thriving Economies: Actionable Strategies for California's North Coast Region" (2018) and "Climate Mitigation Report for the North Coast Region of California" (2018).

The project will build on multiple data products recently available in Sonoma and increasingly available throughout the North Coast region, including the [Sonoma County Vegetation Map](#) and related products, such as ladder fuels and structures and assets at risk, sponsored by the Sonoma Ag + Open Space, NASA, Pepperwood, and Tukman Geospatial.

UCCE and Pepperwood are currently collaborating on a geospatial web application to assist landowners in prioritizing fuels reduction activities on their properties. This application uses publicly accessible datasets and information gathered from specialists in fuels reduction in Sonoma County to estimate the potential cost of fuel reduction on the landowners' properties to generate a report for the landowner for their use in planning vegetation management projects on their properties and applying for funding through NRCS or CAL FIRE. This tool is being piloted in the Lake Sonoma Watershed and will inform the critical data layers for use in the region-wide strategy being developed by this project.

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

1. One set of performance measures for this project will focus on the stakeholders engaged, their participation in collaboratively crafting the multi-benefit prioritization analysis, and their ultimate adoption of the results as a community-wide strategic planning aid. We will record and report:
 - a. Attendance and outcomes of the Stakeholder and Technical Advisory Group meetings.
 - b. A survey to elicit feedback from Stakeholders about their use of the resulting prioritization maps and strategic coordination with the other Stakeholders.
2. Another set of performance measures will focus on the projects identified and landowners supported. We will:
 - a. Record number and acreage of pilot treatment designs
 - b. We will apply a social network framework and pre- and post-workshop surveys to quantify forest and rangeland landowners' knowledge on forest and rangelands management practices that will maintain and potentially increase working landscape resiliency.
3. The final report for the project will describe the methods for creating the prioritization analysis in detail so it may be replicated by others. It will present the results of the prioritization analysis as maps and summarize the outcomes of the final Stakeholder meeting to refine the collaborative, multi-benefit landscape-scale strategy.