

# EXHIBIT A PROPOSAL COVER PAGE

## **Proposal Type**

Concept Proposal for Demonstration Projects and Processes

# Organization Name (Lead Applicant)

Mendocino County Resource Conservation District

# 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:	Mary Mayeda							
Title:	Forest Program Manager							
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Phone Number (include area code): 707-272-4513								
Organization Address (City, County, State, Zip Code): 410 Jones Street, STE C-3, Ukiah, CA 95482								
Authorized Representative (if different from the contact name) Name: Megan McCluer								
Title:	Executive Director							

Email: megan.mccluer@mcrcd.org

Phone Number (include area code): 707-462-3664 x 101

### **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

Megan McCluer Date: 2020.05.22 11:04:50 -07'00'

Signature

22 May 2020

Date



# Statement of Qualifications

North Coast Resource Partnership RFFC Demonstration Project and Processes RFP May 2020

## Background and Qualifications

The mission of the Mendocino County Resource Conservation District (MCRCD) is to conserve, protect and restore wild and working landscapes to enhance the health of the water, soil and forests in Mendocino County. MCRCD is a non-regulatory, public agency providing conservation leadership through technical, financial, and educational support for voluntary stewardship of natural resources on public and private lands in our community. MCRCD works with communities to voluntarily conserve, protect, and restore natural resources in a landscape that supports agriculture, timberland, wild lands, and urban areas by providing technical assistance, educational programs, monitoring and assessment services to landowners. MCRCD uses a watershed approach in addressing natural resource issues, collaborating closely with federal, state, county, and other local resource agencies and organizations, and secures millions of dollars in grant funding to help meet local and regional conservation goals. MCRCD also works closely with industry associations, community groups, Native American tribes, businesses, schools, and the general public. 100% of our annual funding comes from local, state and federal grant programs, professional service agreements, and tax-deductible donations.

The MCRCD has built up a strong team, staffed with a high level of technical expertise, a number who have been with the organization for many years. They have a proven track record of completing projects successfully and maintaining and developing strong landowner and agency partner relationships. MCRCD has developed its reputation in the County and among the many diverse communities as a leader in natural resources management. All staff present themselves professionally and deliver professional results benefitting the landowner and the land.

MCRCD has four primary programs that are staffed with resource professionals and coordinate with at least one member of the MCRCD Board of Directors. Here is a list of current programs and projects coordinated under Water, Soils, Forestry, and Land Stewardship teams:

#### Soils Program

MCRCD partners with landowners on environmentally beneficial soil conservation practices and provides technical assistance to improve soil health and reduce erosion. Landowners can improve water retention, sequester carbon, increase production, improve pasture quality, and minimize erosion on working landscapes. MCRCD is a cofounder of the North Coast Soil Health Hub (soilhub.org)

#### Statement of Qualifications – Mendocino County Resource Conservation District

#### Water Program

Clean water and healthy streams are critically important to both human communities and aquatic ecosystems. Working with our conservation partners and willing landowners, water resources are stewarded through the promotion of water conservation best management practices, salmon stream habitat restoration, road-related erosion control and implementing flow enhancement strategies

#### Forestry Program

MCRCD works to improve forest and oak woodland health through the promotion of resilient management and conservation practices. MCRCD helps landowners understand the ecology of their forestland and how to actively manage for multiple benefits, including fuel reduction, habitat enhancement, and watershed function.

#### Land Stewardship (Willits)

The Willits Bypass Mitigation Lands occupy approximately 2,085 acres located in the Little Lake Valley near the City of Willits. These public lands have been acquired for wetland mitigation associated with the construction of the Highway 101 Willits Bypass. MCRCD has assumed the role of long-term managers of these lands and is responsible for all aspects of habitat and infrastructure maintenance, reporting and agency coordination, administration of agricultural programs and community outreach and education.

As we carry out our programs we are guided by the following principles:

- Science-based Decision Making
- Long-Term Stewardship
- Trust and Integrity
- Collaborative Partnerships

## Example Projects and Experience

MCRCD has a long productive history of successful grant applications for our projects and programs. We administer funding from federal, state and local agencies, and private landowners including: State Water Resources Control Board, California Natural Resources Agency, CAL FIRE, Caltrans, CA State Coastal Conservancy, National Fish and Wildlife Foundation, U.S Department of Agriculture, Mendocino Community Foundation, CARCD and the Resources Legacy Fund, among others. Our LandSmart<sup>®</sup> programs are coordinated with Sonoma, Gold Ridge, and Napa RCDs, and provide consistent technical and implementation assistance to landowners on a regional scale.

#### Example of Current Grants Managed by MCRCD - 2020

# CAL FIRE CCI Forest Health - *Applied Innovative Forest Health Strategies for Post-Fire Landscapes* \$1.9 million

This project uses a proactive approach to addressing forest health impacts of the October 2017 Redwood Complex Fire through reforestation of the Douglas-fir and mixed conifer-hardwood areas that burned in moderate to severe intensity, and removing standing dead trees from private properties and utilizing the biomass waste for conversion to valuable electricity, thermal energy, and biochar utilizing cutting edge biogasification technology.

#### Statement of Qualifications – Mendocino County Resource Conservation District

## West Coast Watershed - Building Capacity for Addressing Impacts of Cannabis Cultivation in North Coast Communities

#### \$49,950

The Project coordinated with County of Mendocino, rural Disadvantaged Communities (DAC) communities, and fire districts in DACs to provide information to legal cannabis producers regarding water conservation, beneficial rural road maintenance practices and proper use and disposal of toxic materials. The information gathered under this project will provide technical education to cannabis cultivators and other DAC members, using an integrated education and outreach strategy. The resources compiled in this project were uploaded into the MCRCD as a "Toolkit" for communities addressing Cannabis BMPs, water security and fire preparedness:

https://mcrcd.org/resources/fire-preparedness-and-water-security

# NCRP - Water Conservation Technical Assistance to Mendocino County Tribes \$114,860

The project provides water audit technical assistance and training to assist Tribal water suppliers in meeting water conservation goals; provide system leak documentation for a sample of distribution lines in order to lay the groundwork for future repairs; explore and facilitate the creation of a toolkit for customer communication; and to partner with regional Tribal organizations to extend the reach of the technical assistance beyond Mendocino County.

# Wildlife Conservation Board - *Navarro River Watershed Streamflow Enhancement, Phase 2* \$725,000

The Mendocino County Resource Conservation District (MCRCD), The Nature Conservancy (TNC), and Trout Unlimited (TU) are continuing a collaborative planning and implementation prioritization process, based on the Phase 1 planning process. This project will result in plans and preliminary designs for water storage, infiltration, and Community Water Management (CWM) projects that will enhance stream flows or allow fish to optimize scant flows in known to support anadromous fish.

## Key Project Personnel

#### Megan McCluer, Executive Director

Megan joined the Mendocino Resource Conservation District from the U.S. Department of Energy where she served as Program Manager for the Wind and Hydropower Technologies Office. During those 8 years, she managed over \$300M of federal funds for energy efficiency and renewable energy programs. She authored numerous budget requests, competitive solicitations, technical and financial reports to Congress, and managed hundreds of grant award recipients and DOE and laboratory employees. For her contributions, Megan received the Meritorious Civilian Service Award, the Outstanding Civilian Service Medal, and DOE's Special Act Award for Innovation.

#### Mary Mayeda, RPF #3025, Forest Program Manager

Mary has extensive experience with both fuel reduction and forest health timber and stewardship projects and postfire salvage when working for the USDA Forest Service on the Plumas and Tahoe National Forests. Since January 2016, she has provided the forestry technical assistance for the Natural Resources Conservation Service (NRCS) for their Environmental Quality Incentives Program (EQIP) and worked closely with landowners to develop Forest Management Plans in Mendocino County. Mary provides landowner assistance and develops prescription for contract forest health practices including,

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but not limited to, forest stand improvement, fuel reduction, habitat enhancement, woody residue treatment following catastrophic events, and reforestation. She is currently managing MCRCD's largest grant to date, implementing conifer reforestation and woody biomass energy production to benefit the communities impacted by the 2017 Redwood Complex Fire. Mary assisted John Nickerson and the Climate Action Reserve in the development of the beta version of the Redwood Region GHG benefit Calculator Tool and will be the Project Lead on this project.

#### Patty Madigan, Sr. Conservation Programs Manager

Patty has worked for MCRCD since 2001, first serving as the Navarro Watershed Coordinator and then as the Senior Conservation Programs Manager. She currently manages restoration projects on the Mendocino Coast to support Total Maximum Daily Load (TMDL) goals for reducing road-related sediment delivery to streams and streamflow enhancement. She has taken a leadership role in supporting licensed cannabis cultivators in adopting best management practices, in partnership with the California Association of Resource Conservation Districts (CARCD) and the North Coast Resource Partnership (NCRP). Through a grant from the State Water Resources Control Board, Patty provided oversite for Pacific Watershed Associate's updated edition of the Handbook for Forest Ranch and Rural Roads (2015). Patty will work with Mary Mayeda by providing project support, outreach, and review of project deliverables and assistance with meeting project deliverables and supporting partner communications.

#### John Nickerson, RPF #2549, Dogwood Springs Forestry

The project will subcontract to John Nickerson, a forestry consultant based out of Ukiah, CA, to complete the toolkit. Before becoming a consultant full-time, John was the Vice President of Forestry for the Climate Action Reserve from 2013 to 2019. John is a technical expert in Greenhouse Gas (GHG) accounting within Natural and Working Lands Sector. He is lead author for several forestry related GHG accounting protocols in use in compliance and voluntary markets in California and Mexico (see <a href="https://www.climateactionreserve.org/how/protocols/">https://www.climateactionreserve.org/how/protocols/</a>) and has provided additional consultations in China, South Korea, Kazakhstan, and Brazil. John is also an expert in forest inventory design and implementation and sustainability planning. He has developed and managed forest inventories for large (700,000 acres +) and small landowners, and is proficient with many growth and yield models, database management, GIS, and Visual Basic programming. John has supported many clients in Northern California with technical analysis for CCI Forest Health grants.

#### Hourly Rates

Personnel	Hourly Rate		
Megan McCluer, Executive Director	\$110		
Mary Mayeda, Forest Program Manager	\$95		
Patty Madigan, Sr. Conservation Programs Manager	\$110		
Ursula Butler, Business Manager	\$85		
John Nickerson, Subcontractor	\$135		

### References

### Mendocino County Resource Conservation District

Dan Sicular, Sicular Environmental Consulting and Natural Lands Management, Mendocino County Landowner Phone: (415) 717-6328; Email: <u>dsicular@outlook.com</u>

Carol Mandel, District Conservationist, Natural Resources Conservation Service Ukiah Field Office Phone: (707) 485-3233; Email: <u>carol.mandel@usda.gov</u>

#### John Nickerson

Mike Jani, California Board of Forestry Email: <u>mjani@mendoco.com</u>

Gary Gero, Los Angeles County Sustainability Director Email: <u>GGero@ceo.lacounty.gov</u>

## NCRP DEMONSTRATION PROJECT AND PROCESSES CONCEPT PROPOSAL BUDGET AND SCHEDULE

Project Name: \_\_\_\_\_Redwood Region Greenhouse Gas Calculator Toolkit\_\_\_\_\_\_

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.	\$4,680.00	\$0.00	\$4,680.00	\$4,680.00	7/1/20	7/30/21
Project Reporting	Data collection, performance measures, and project reporting of outcomes/lessons learned	\$7,600.00	\$0.00	\$7,600.00	\$7,600.00	8/1/20	7/30/21
Forestry GHG Benefit Calculator Tool	Review current version of model, update modeling parameters and assumptions per advice from CAL FIRE, and broaden applicability of tool	\$40,000.00	\$0.00	\$40,000.00	\$37,000.00	7/1/20	6/30/21
Communications, Training and Outreach for Calculator Tool Use	Work with CAL FIRE to ensure compatibility with CCI Forest Health Grant GHG Calculation methodology, outreach to end users and perform webinar training	\$9,200.00	\$0.00	\$9,200.00	\$7,200.00	7/1/20	6/30/21
		\$0.00	\$0.00	\$0.00	\$0.00		
		\$0.00	\$0.00	\$0.00	\$0.00		
Total NCRP 2020 Demonstration Project Request		\$61,480.00	\$0.00	\$61,480.00	\$56,480.00		
* List the sources and status of matching funds: There are currently no matching funds identified for this project. County funding to MCRCD could be used, but due to the current COVID pandemic it is unclear if the County will be granting MCRCD any agreement funding to support forestry activities. A total of \$30,000 has already been invested in the beta version of this tool between 2016 and 2017.							
** Is Requested Budget scalable? If yes, indicate scaled totals; if no leave as \$0.							
Project scalability information for the reviewers (optional): A minimum amount of scalability is possible, but not recommened in order tocomplete a robust, usable toolkit that represents all forest stand types in the redwood region and provide modeling for multiple treatment alternatives.							

# Exhibit C: Concept Proposal for Demonstration Projects and Processes Redwood Region Greenhouse Gas Calculator Toolkit

#### 1. Project Abstract

The project will develop a unique, user-friendly greenhouse gas (GHG) benefit calculator toolkit tailored to the North Coast's redwood region. No similar tool currently exists. The purpose is to facilitate GHG calculations when applying for funding to implement fuel reduction activities within the Partnership boundary. The toolkit's standardized inventory methodology and analytical tool will streamline the process of GHG calculation and reduce costs to apply for funding. The tool will analyze several fuel reduction activity types based on pre-modeled forest stands and will comply with methodology required for CCI Forest Heath grant applications. This toolkit allows end-users to produce rigorous GHG modeling results through a cost-effective process and will empower local communities to apply for climate resiliency funding for forestlands on the North Coast.

#### 2. Project Location and Area Served

The Redwood Region GHG Calculator Toolkit will be developed for the redwood region of the North Coast, including portions of Del Norte, Humboldt, Mendocino, Sonoma, and Marin counties. The redwood region contains approximately 2.7 million acres in forestland<sup>1</sup>. This is the heart of the redwood and coastal Douglas-fir forests in the state and has been noted on NCRP's website to sequester approximately 30% of the state's total carbon, making this region capable of a high rate of return on carbon beneficial vegetation treatment investments. Furthermore, private landowners are responsible for approximately 85% of the region's forestland, making local landowners, conservation organizations, and community groups the primary land stewards of this high value carbon resource.

#### 3. Project Description

The California Climate Investments (CCI) Program funds activities that reduce greenhouse gas emissions and provide forest health improvement and wildfire risk reduction benefits. To apply for CCI funding, a complex, time-consuming analysis must be performed, requiring expertise in forest inventory development, forest growth & yield and fire modeling. CAL FIRE's Forest Health GHG Calculator Tool standardizes the final calculations of GHG benefits, but their tool requires data from forest growth & yield and fire models. Our proposed GHG Calculator Toolkit is calibrated to the North Coast's redwood region to streamline the application process and reduce costs for local applicants.

The tool uses basic forest inventory to analyze fuel reduction prescriptions based on pre-modeled forest stand types allowing for rapid interpretation of GHG impacts to forest conditions over time and complies with the methodology required for CCI applications. This tool will facilitate rigorous GHG modeling through a cost-effective process.

A 2017 beta version was developed by John Nickerson of the Climate Action Reserve. To update the GHG Calculator Toolkit, MCRCD will contract with Nickerson to create a final product for the public by July 2021. This Toolkit will broaden applicability, expand treatment types analyzed, and add more report

<sup>&</sup>lt;sup>1</sup> California Natural Resources Agency. 2017. California Forest Carbon Plan: Managing our Forest Landscapes in a Changing Climate. Appendix 3: Ecoregional Assessments, pg. 220.

types and graphics for users to better understand proposed treatments. A user manual and at least one training webinar will be completed for reference tool use.

The expected project benefits are a free GHG Calculator Toolkit unique to forest conditions of the redwood region to empower a greater range of CCI applicants, increase funding in the region, and implementation of wildfire and climate resilience through landscape level treatments. This tool can be used for writing Forest Management Plans to increase efficiency in forest stand modeling, saving the landowner and RPF time and money.

The Toolkit directly supports the NCRP RFFC objectives of benefiting and serving the Partnership area and builds capacity and extends services to DACs by creating a rigorous, cost-effective process to GHG calculations for wildfire resiliency treatments. This Toolkit will assist in effective management practice identification for fuel load reduction and forest health treatments applied throughout the region.

### 4. Specific Project Goals/Objectives

The overarching goal of the Redwood Region GHG Calculator Toolkit is to create a user-friendly toolkit that will facilitate project development and increase funding requests that will ultimately lead to the implementation of vegetation management projects that will improve forest health and increase fire resiliency. This goal will be achieved by the following objectives:

Objective 1: Define and describe one (1) standardized forest inventory methodology.

Objective 2: Create one (1) GHG benefit calculator tool that calculates existing carbon stocks within the identified stand, the expected future carbon stocks with and without fuels reduction, and the expected future carbon stocks with and without fuels reduction should a wildfire run through the stand. This calculator tool will be applicable to 2.7 million acres of forestland.

Objective 3: Outreach to 50 to 100 potential end-users (e.g., landowners, tribes, conservation organizations, Fire Safe Councils, RPFs, state and federal agencies etc.) and provide a user manual and at least one webinar training on how to use the toolkit.

# 5. 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.

The project addresses all six NCRP Goals. The Redwood Region GHG Calculator Toolkit directly relates to Goal 1, Objective 1, respect local autonomy and knowledge in project development and implementation by assisting and empowering local groups to apply for CCI funding in a more cost-effective process without hiring expensive outside expertise. This directly benefits economically disadvantaged communities and addresses economic vitality, supporting local efforts in applying for CCI funds by reducing or eliminating out of pocket expenses for forest modeling expertise, putting landscape level project treatments back into the hands of the local community (Goal 2, Objective 4). This project will build capacity and extend services to communities that are under-served and/or limited by helping alleviate economic barriers to contract RPF services. This tool will easily and effectively calculate existing carbon stock and GHG benefits for fuel reduction treatments without the need and cost for special growth and yield modeling expertise. This Toolkit does not exclude work for an RPF, but rather can reduce the number of planning hours for RPF assistance, extending services for landowners and conservation organizations with limited resources.

The Redwood Region GHG Calculator Toolkit addresses Goal 3, Objective 6 by supporting grant applications for projects that conserve, enhance, and restore watershed functions, habitats, and support biological diversity by facilitating local organizations to apply for CCI funds. Furthermore, the toolkit will support local organizations and groups to apply for projects that may improve drinking water quality by protecting watershed function through fire resilience, including in economically disadvantaged communities (Goal 4, Objective 9).

NCRP Goal 5, Objective 11 is to address climate change effects and impact, including fires. The Redwood Region GHG Calculator Toolkit will directly measure how vegetation treatments will increase resilience to expected climate change effects regarding wildfire and promote local independence in applying for GHG emission reduction projects (Goal 5, Objective 12). Finally, the toolkit will facilitate more diverse communities to apply for funding for implementation projects to promote forest and community resiliency and reduce the public safety impacts associated with wildfires on a landscape level (Goal 6, Objective 13).

# 6. 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.

The Redwood Region GHG Calculator Toolkit will be available and free for use over the entire redwood region. There is currently no other tool available to the public that analyzes fuel reduction activities and generates reports on demand, including initial and projected metrics required for CCI Forest Health grant applications, without expertise in forest growth and yield modeling. Additionally, by using inventory data solely from the redwood region to create and model the tool's forest stand types, this toolkit will be uniquely calibrated to provide more accurate results than if an applicant were to use a more generalized forest growth and yield model, such as the Forest Service's Forest Vegetation Simulator (FVS). FVS was built to favor ecoregions where National Forests are located (i.e., the Sierra Nevada and Cascade regions) and is weakly calibrated for the North Coast.

The Toolkit aims to facilitate an increase in scale of multi-beneficial forest management activities within the redwood region by supporting local groups to submit complicated CCI or other grant applications and can be used for project areas of any size. The template developed for the redwood region will be transferable to other forest types throughout California, meaning the toolkit can be retooled, refined, and replicated for other ecoregions, including the Klamath/Interior Coast Ranges and Eastside ecoregions, which encompass the rest of the Partnership's area of influence.

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

One of the main funding sources for improving forest health and reducing wildfire risk is the CCI Forest Health Program administered by CAL FIRE. To apply for this funding source, or future funding initiatives with similar GHG calculation requirements, a complex and time-consuming analysis of changes to carbon stocks under four separate modeling scenarios must be performed. This requires expertise in inventory development, forest growth and yield modeling, and forest fire modeling. Although CAL FIRE provides a Forest Health GHG Calculator Tool to standardize the final calculations of GHG benefits for CCI grant applications, the data required to input into CAL FIRE's tool is determined by applying a forest growth and yield model and a forest fire model to the forest inventory for the project site. Many local North Coast communities and conservation organizations eligible to apply for this funding are discouraged or prohibited from applying to due to the upfront costs of hiring outside expertise to complete the carbon modeling. To help interested applicants, including landowners, tribes, Fire Safe Councils, and other conservation organizations, the Redwood Region GHG Calculator Toolkit will streamline the application process and thus reduce project development costs. This should result in an increase in CCI Forest Health applications from the North Coast and increases the odds of state funding coming into the region to implement landscape level fire resiliency projects. This project will create a planning toolkit specific to the redwood region's unique forest types that will empower local communities to apply for the State's largest pool of climate resiliency grant funding and future funding opportunities for forestlands.

#### 8. Describe the size of the project and the communities served by this project.

The Redwood Region GHG Calculator Toolkit will be tailored specifically to the redwood region of the North Coast, and thus can be used for planning on approximately 2.7 million acres of forestland. This toolkit will provide much needed technical assistance to local groups looking to apply to often complicated forest and wildfire resiliency grants, including the 15 Tribal Nations located within the project area. Disadvantaged communities encompass a majority of the redwood region, meaning many of the locally lead landowner and conservation groups within the area have difficulty paying for the development of grant applications by natural resource professionals with vegetation growth and yield modeling skills. This tool will serve all communities within the region and will be available for free download to the public with a corresponding user's guide. Furthermore, at least one training webinar will be organized and recorded to allow for a wide audience into the future. The Toolkit will be available for free access and download on both NCRP and MCRCD's websites.

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

This project is a partnership between MCRCD, John Nickerson, and the Climate Action Reserve (CAR). John Nickerson, formally the Vice President of Forestry for CAR and currently an independent consultant, will be the lead modeler on this project. MCRCD's Forester (Mary Mayeda) will work with Nickerson on the model and lead the communication and training coordination for end-users. CAL FIRE is in support of the proposed toolkit, confirming the methodological approach we are taking aligns with the CCI Forest Health grant GHG calculation methodology. Senator Mike McGuire and Assemblymember Jim Wood are strong supporters of the project as it aligns with their goals of providing technical assistance to local groups looking to apply for fuel reduction and climate resiliency projects. Furthermore, the RCDs within the redwood region are all in support of the toolkit and are looking forward to its completion as it will facilitate grant applications to serve their communities and be used in the development of Forest Management Plans. MCRCD outreached to West Coast Watershed and Sonoma Water about this proposal and received positive feedback and were encouraged to apply.

**10. List the estimated quantifiable, measurable benefits expected to result from the proposed project.** The project will result in a comprehensive toolkit that includes a standardized inventory methodology, a GHG calculator tool built out in Microsoft Access, a user manual, and a recorded training webinar providing an overview of how to use the tool. At the end of the project the Redwood Region GHG Calculator Toolkit can be used on approximately 2.7 million acres of forestland. GHG calculator tool translates the user's inventory data to standardized forest structural classes (i.e., stand type) which have been pre-modeled in the Forest Vegetation Simulator growth and yield model with parameters specifically calibrated to the North Coast's redwood region to generate reports that include current stand conditions (i.e., carbon stocks, merchantable timber volume, average tree diameter, basal area, and stand density). End users are likely to include at least the following: the 15 Tribal Nations, five (5) RCDs, five (5) NRCS offices, four (4) county Fire Safe Councils, and over 100 consulting RPFs located within the redwood region.

**11.** List any scientific studies, plans, designs or reports completed for the project or process. This work is to facilitate the use of an existing quantification methodology (Forest Health Program). The CCI Forest Health Program quantification methodology, developed by the CA Air Resources Board and CAL FIRE, can be found online at

https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/calfire\_fh\_draftqm\_19-20.pdf?\_ga=2.224844762.1552424835.1590161816-1671056292.1589847621.

There are no additional studies, plans, designs, or reports other than the documentation associated with the quantification methodology that are already completed for the project. However, in addition to the comprehensive Redwood Region GHG Calculator Toolkit, the project will include a report documenting the assumptions and process of creating the GHG calculator tool. This documentation will allow for the tool to be used as a template for other ecoregions. The steps and assumptions behind standardized forest structural classes and how they were modeled will be documented allowing for a future project to produce a GHG calculator tool calibrated for a different region presented in the same user-friendly format.

# **12.** Describe the approach to data collection, performance measures, and project reporting of outcomes and lessons learned.

The Redwood Region GHG Calculator Toolkit is based on pre-modeled standardized forest structural classes. The data used for these structure classes will come from the LANDFIRE Program (https://www.landfire.gov/) or other appropriate vegetation classification dataset based on inventory data from the project area. A quantitative stand profile is developed for each plot of the user's inventory to assign it to a forest structural class based on species dominance, size distribution of trees, and canopy density. These standardized forest structural classes have been pre-modeled and analyzed according to the forest growth and yield and forest fire modeling requirements specified in the CCI Forest Health guidelines. Reports based on the input and overall reporting requirements for the grant application, including initial and projected metrics for each of the required modeling scenarios (i.e., treatment and no treatment without wildfire, as well as treatment and no treatment with a wildfire event, for at least three treatment prescriptions) will be generated. Metrics are combined across all forest structural classes for the project area for input to CAL FIRE's Forest Health GHG Calculator Tool. The toolkit will be tested by the five (5) RCDs (Marin, Sonoma, Gold Ridge, Mendocino, Humboldt) within the project area by integrating the toolkit into their Forest Management Plans. The project team will make necessary changes to the toolkit based on the feedback received. As the tool is developed, notes will be kept on the methodology and assumptions used to create the structural classes, treatment parameters, and reports. This documentation will be put into a report at the end of the project to ensure that the toolkit can be used as a template for other ecoregions in the future.