



California Department of Forestry and Fire Protection  
California Climate Investments  
Fire Prevention Grant Program Final Report



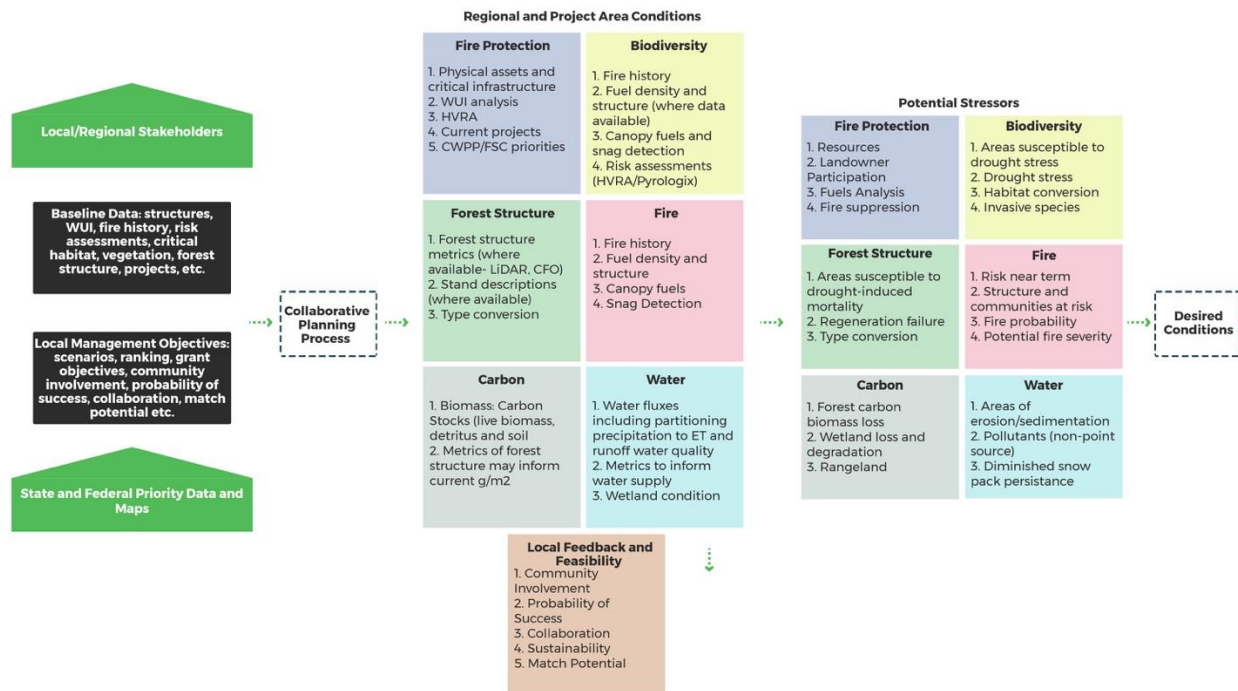
**Grant Number:** 5GG17123

Final Reports are an explanation of what occurred during the longevity of the grant. In the Final Report please explain what occurred during the grant (i.e. plans made, challenges faced, problems with plans, etc.). Please include any details about the project/workshop/purchases that you made in fulfilling your project. In addition, please attach pictures from the duration of the grant using a .jpeg.

**Summary of activities that occurred during the grant.** (i.e. expenditures, workshop agenda and purpose, after actions identified, etc., Please include pictures).

SRWP lead the *Butte County Community Wildfire Protection Plan (CWPP) Funding and Implementation (Project)* and provided administrative and fiscal oversight including managing the grant and contracts, tracking budgets, coordinating and communicating with members of the project team and subcontractors, and reporting and invoicing. SRWP and 34 North with support from the Project Team that includes the Butte County Fire Safe Council (BCFSC), Butte County Resource Conservation District (BCRCD), and CALFIRE developed a [Landscape Scale Project Area Analysis and Prioritization Framework](#) (Prioritization Framework).

**Landscape Scale Project Area Analysis and Prioritization**



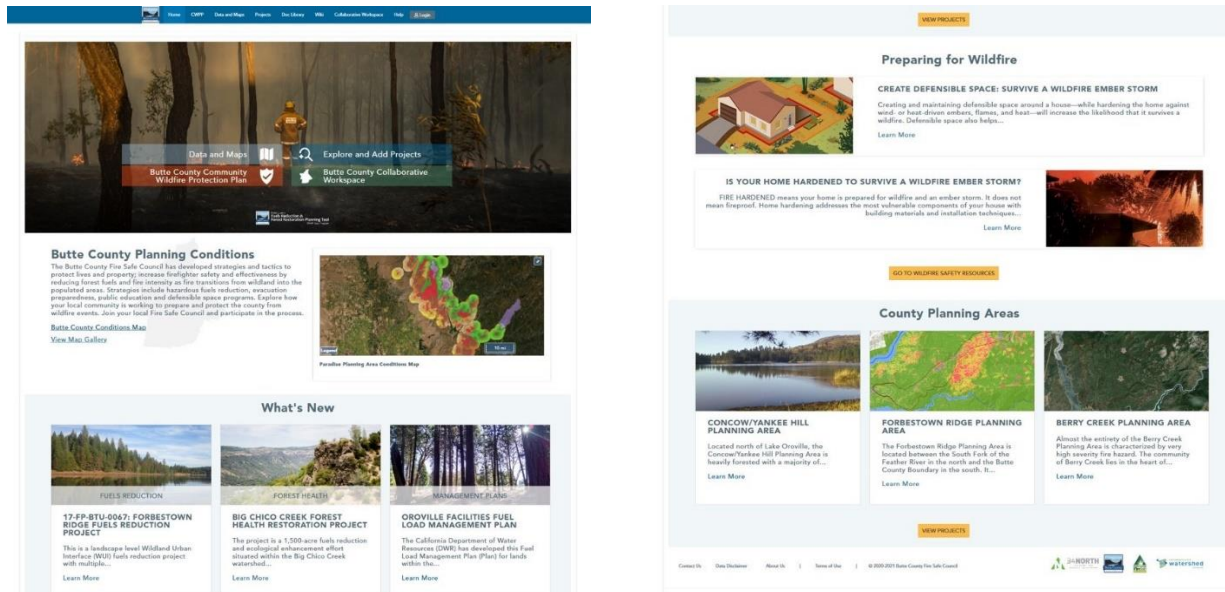


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The Prioritization Framework includes a synthesis of existing fuels reduction and forest restoration guiding documents and research and planning activities meant to provide access to the best available science and outline the steps needed to effectively plan and implement at the regional and local scale to ensure a successful and meaningful decrease in high-severity fire and increase resilient landscapes.

34 North with support from members of the Project Team and the CWPP Workgroup developed the [Butte County Fuels Reduction and Forest Restoration Planning Tool](#) (*Planning Tool*) that includes a comprehensive user interface with custom content including a wide-ranging planning map library, real time data dashboards, project pages, parcel tracker, and other collaborative planning and mapping tools to facilitate project planning, implementation, and post treatment monitoring.



Butte County Fuels Reduction and Planning Restoration Tool Homepage

34 North with support from SRWP collected, organized, styled, processed, and synthesized key datasets and information, customized and developed project and science-based catalogs, designed and implemented a data directory, customized project tables and queries for project area analysis, and developed reporting tools and a regional projects map. 34 North with support from SRWP acquired and processed LiDAR data that will help to describe stand-level spatial patterns that influence key aspects of resilience and ecosystem function for planning and restoration efforts.

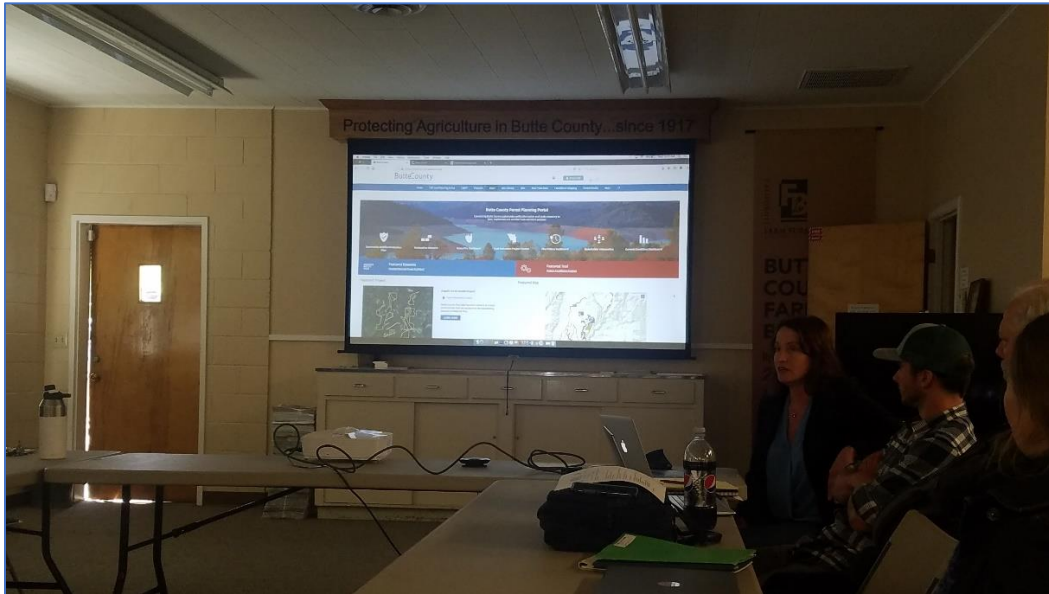
34 North worked with members of the Project Team and CWPP Workgroup, and regional, state and federal partners to create methodologies and criteria for strategic planning and prioritization. The organization and schema of prioritization criteria is associated with data







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CWPP Workgroup Meeting

The BCFSC and BCRCD with support from SRWP and members of the CWPP Workgroup coordinated and facilitated *Butte County Forest Health and Wildland Task Force* meetings from April 2019 through February 2020 to discuss and develop a collective countywide vision of forest health including planning, management and recovery efforts focusing on the Concow Basin. In January 2020, SRWP with support from the BCFSC and BCRCD.



Wildland Task Force Meeting



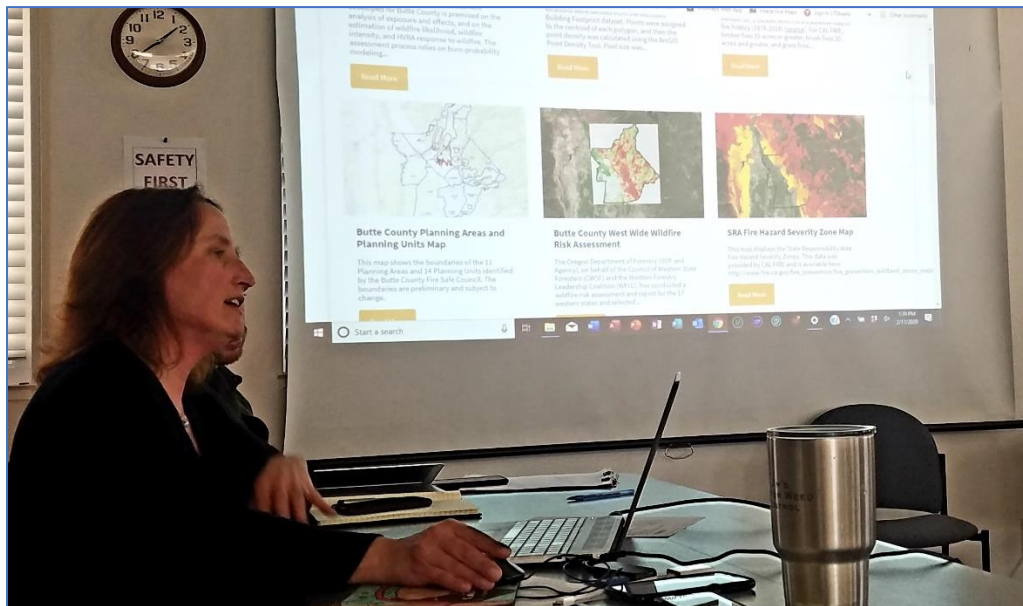
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The SRWP, Butte County Fire Safe Council BCFSC, and the BCRCD worked together to develop, formalize and sustain the Butte County Collaborative Group (BCCG) including:

- Developing and supporting steering committees and working groups as needed to guide the work of the BCCG;
- developing internal and external communication tools (BCCG listserv, Collaborative Workspace); and ensuring that the BCCG meets with the frequency necessary to achieve shared goals, and
- set up the infrastructure needed to advance goals at and between meetings.

The BCFSC with support from SRWP developed several committees including the Development, Biomass, Grazing, Prescribed Fire, and Firewise Committees and coordinated and facilitated meetings to focus on specific tasks to research, summarize and address with the full BCCG.



Amye Osti, 34 North Presenting at the BCCG Meeting

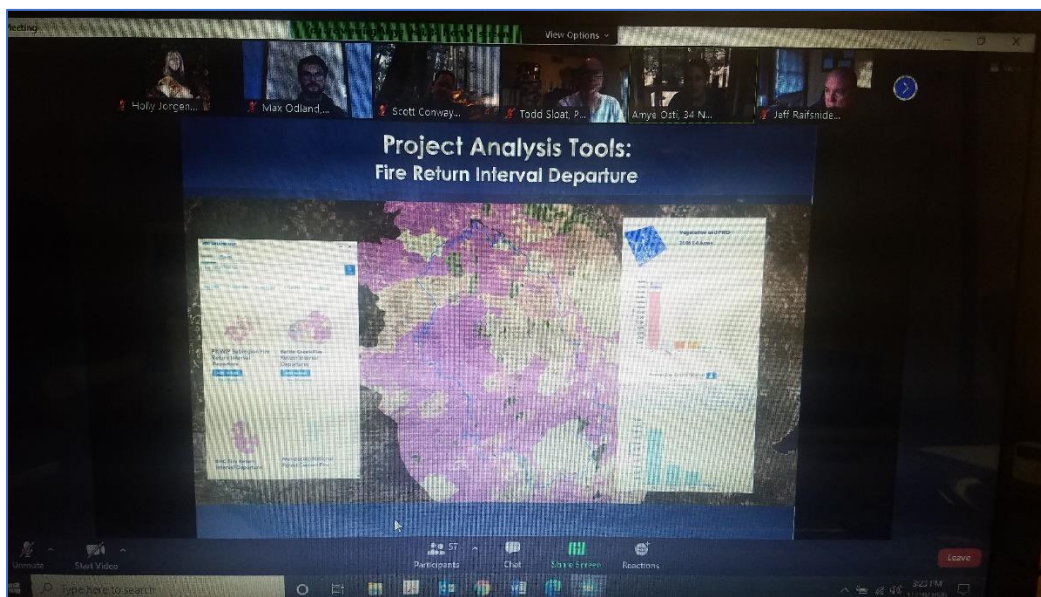
Members of the Project Team coordinated and facilitated workshops, forums, and meetings to discuss and develop a collective countywide vision of forest health including planning, management and recovery efforts. SRWP and members of the Project Team joined and participated in committees including the American Forest Foundation's (AFF) My Sierra Woods, Forest Biomass Transportation Incentive (FBTI) steering committee and the Butte County Forest Advisory Committee (FAC) to keep apprised of forest health improvement efforts and opportunities and share information and updates on the Project.



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Throughout the Project, SRWP researched potential partnership and funding opportunities to advance planning, management, and recovery efforts in Butte County. SRWP and members of the Project Team participated in regional and statewide meetings including the *Forest Management Task Force* and *Sierra Eastside Regional Prioritization Group* monthly meetings, *Sierra Institute's SCALE* bi-annual meetings, the *Sierra Nevada Conservancy's Watershed Improvement Program (WIP)* Annual Summits, and the *CA Association of Resource Conservation District's* annual meeting and met with regional, state and federal partners to discuss state and federal investment in collaborative forest restoration and provide updates on the Project's accomplishments and challenges.



CARCD remote presentation (during covid)

SRWP and 34 North with support from members of the Project Team researched potential partnership and funding opportunities to advance planning, management, and recovery efforts in Butte County and coordinated and facilitated meetings with more than 30 local, state, and federal partners including CALFIRE, Sierra Nevada Conservancy (SNC), US Forest Service, Sierra Institute, Bureau of Land Management, American Forest Foundation, Metropolitan Water District, CSU, Chico Ecological Reserve and Geographic Information Center, WA State University, Department of Water Resources, Town of Paradise, City of Chico, Pacific Forest Trust, and the Butte County Department of Conservation and Water Resources to gain support and identify opportunities for investment. Members of the Project Team participated in more than 50 educational and informational webinars and peer learning opportunities to increase knowledge and develop resources to improve landscape level restoration and management efforts.





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Members of the Project team participated in and presented at the AFF's *Scaling Risk Reduction in Northern California Workshop* and the *Secretary Speaker Series* event titled "*Protecting California Communities in the Age of Mega Fires*" to explore and discuss the conditions that must be present to scale risk reduction effectively.

Members of the Project Team with support from members of the CWPP workgroup and community partners held meetings in person and remotely and led field trips to multiple locations throughout the County's Wildland Urban Interface (WUI) including areas in and around the Camp Fire and North Complex Fire footprints to view success stories, discuss recovery, management and restoration goals, and provide examples and technical guidance for forestry practices pre and post fire.



SRWP ED Holly Jorgensen and BCFSC ED Calli-Jane DeAnda with AFF Director, Fire & Western Conservation Tom Hill



Post Camp Fire Field Trip

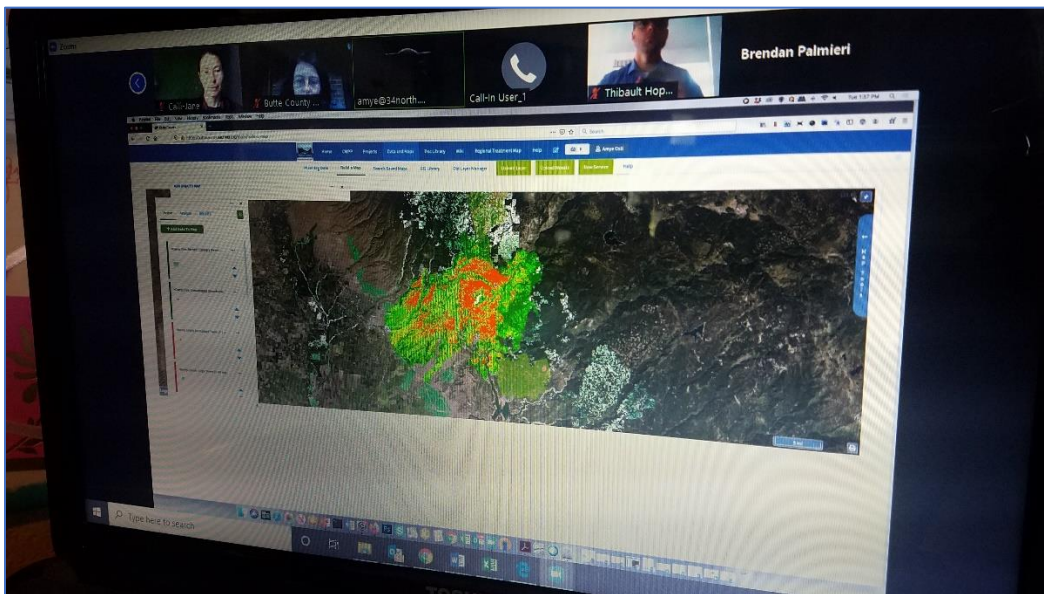
34 North with support from the members of the Project Team conducted in person and remote workshops and trainings to show stakeholders how to upload, explore, and utilize data and information and create maps for education, outreach, planning, reporting and decision-making.



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Planning Tool Training with BCFSC staff (pre-covid)



Planning Tool Training with BCFSC, BCRCD, and CALFIRE staff (during covid)

Members of the Project team participated in an interview and process with the News and Review to develop a forest health themed publication titled [Path to a Safer Forest](#) that features key stories about forest health in the County's WUI communities to provide readers with direction on forest health topics including ways they can engage in their communities to improve forest health and included information on the Sacramento River Watershed Data





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Portal and Planning Tool and its part in reducing wildfire risk and restoring forest health in Butte County's forested watersheds.



Members of the Project Team Participating in interview with the News and Review

Members of the Project Team developed and distributed outreach materials to provide information about the Project and wildfire mitigation/forest health improvement efforts in the County including a [Project handout](#), [CWPP Workgroup handout](#), and a [BCCG handout](#).

The BCFSC with support from 34 North and SRWP aggregated information, photos and maps and developed a handout to share with over a dozen state legislators including Assemblyman James Gallagher and Senator Jim Nielsen in an effort to educate legislators on the conditions of our forests and the resulting issues and demonstrate that it is imperative that we revise state policies and practices to facilitate wildfire mitigation efforts.

**Challenges faced during the grant.** (i.e. delays due to the weather, contract bids coming in higher or lower than planned, change of project manager, location change, etc.)

While we made great progress on the development of the Planning Tool and supporting a number of stakeholders during the project, we had a very difficult time interacting with the local fire safe councils and key stakeholders due to wildfire events and covid-19 restrictions. The Project focus changed significantly because of the Camp Fire and the urgent need for data, information, and planning tools to aid recovery efforts. The majority of 2019 was spent working with the BCFSC, BCRCD and members of the CWPP Workgroup to



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develop the Planning Tool and produce outputs for use in supporting and developing recovery efforts. Due to this significant need and influx of funding for recovery efforts, planning efforts were not a high priority for the majority of Butte County stakeholders and were delayed. The majority of the budget for developing the Planning Tool was used to support stakeholder's response and recovery efforts during wildfire events leaving a small amount of funding for the remainder of the work.

The onset of covid-19 and the North Complex Fire in 2020 further complicated and delayed collaborative planning efforts. While the SRWP spent a significant amount of time working to build and formalize a Countywide collaborative, the 50+ members of the newly formed BCCG struggled to focus on planning efforts as they continued to face immediate threats. Planning Tool development and training were mostly focused on immediate threats and without a formalized user group and planning process, SRWP and 34 North struggled to get the much-needed project data, information, and feedback required for iterative development of the Planning Tool.

**Relation of activities identified to overall goals, deliverables.** (i.e. completed 30 acres out of 100 acres planned, or 30% of planned acres were treated, put on 2 out of the 5 planned workshops, etc.)

SRWP coordinated and facilitated quarterly meetings with members of the CWPP workgroup and coordinated and facilitated 4 meetings with the newly formed BCCG. Despite the onslaught of challenges presented during the project, member of the Project Team put on more than the 10 planned local workshops and facilitated 60 and 90-minute online seminars instead of the planned 30-minute online seminars for the duration of the project.

Members of the Project Team conducted more than 100 meetings and calls with key stakeholders to discuss their data and information needs, potential use cases for their planning, restoration and recovery efforts, and the role of a Countywide collaborative in Butte County.

34 North with support from the members of the Project Team and CWPP Workgroup along with key stakeholders completed all of the Planning Tool development tasks identified in the Scope of Work and completed a significant amount of additional product enhancements and tasks based on the needs of the community due to unprecedented wildfire events throughout the County.



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**How challenges impacted the overall grant accomplishments and how you remedied the situation.** (i.e. one month delay in completing CEQA but we were able to redirect additional camp crews to work on the project so we were able to complete within the grant period, will be treating fewer acres, etc.)

Since a significant portion of the planning efforts during the project period was focused on immediate recovery efforts, we had limited opportunities to work with and get feedback from the Countywide collaborative. We reached out to and worked with individuals and small groups to support their efforts and document user needs and challenges and used our experiences with and feedback from other collaborative groups we are working with to develop and improve the Planning Tool.

We continued to provide Planning Tool support and training after the budget was exhausted and the project ended and will continue to work with local, regional, state and federal partners to continue to provide training and support. Once users are trained and proficient, they will be able to utilize the Planning Tool to cooperatively plan fire management and forest health improvement efforts across Butte County.

The Planning Tool was created and developed to support a collaborative to work systematically to organize and prioritize projects across the landscape, seek agreement, and take action. SRWP will continue to communicate and coordinate with the BCFSC, BCRCD, and County staff to develop and formalize a countywide collaborative including:

- Formalizing the Collaborative's structure in a Charter
- Creating a mission, goals, and objectives
- Developing a strategic wildfire mitigation vision for the County and strategic action plan to guide implementation
- Forming governance and staffing structures
- Coordinating outreach and collaborative building activities that connect stakeholders to each other and the landscape and build support for the wildfire mitigation vision
- Developing a funding model for sustaining the Collaborative over time and secure funding and support to implement priority wildfire mitigation activities
- Working with the Collaborative to assess stakeholder needs

**Overall accomplishment and impacts** (i.e. treated 110 acres instead of the 100 acres planned within funding allotted, exceeding accomplishments by 10%, were able to train 200 employees on <insert date>, provide education to X attendees at X community education events during the Fresno County Fair from July 15-18<sup>th</sup>, etc.). Include how we plan on using





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the accomplishments beyond the grant period and include pictures (before and after for fuels reduction projects) and copies of materials published using grant funds.

This Project provided much needed capacity to Butte County stakeholders and supported their efforts to complete and submit grant applications and secure funding for planning and implementing forest health restoration activities, programs, and projects across the County.

Members of the Project Team conducted more than 100 meetings and calls with key stakeholders to discuss their data and information needs, potential use cases for their planning, restoration and recovery efforts, and the role of a Countywide collaborative in Butte County. SRWP worked with members of the Project Team and CWPP Workgroup and key stakeholders to establish the foundation (Countywide collaborative, planning tool, and prioritization framework) for the development and formalization of the CWPP Landscape Framework and Countywide Action Plan.

SRWP with support from 34 North, BCFSC, and BCRCD coordinated and facilitated 4 BCCG meetings in 2020 to provide updates on the Project and receive input and feedback re aligning community identified needs with data, information, and mapping to cooperatively plan and implement activities, programs and projects. The SRWP, BCFSC, and BCRCD are working together to combine the efforts and members of the CWPP Workgroup and Wildland Task Force into the BCCG to work systematically to organize and prioritize projects across the landscape, seek agreement, and take action.

34 North with support from SRWP and members of the Project Team and CWPP Workgroup developed a web-based Planning Tool within the SRWDP that includes:

- a sub site with only Butte county data and information accessible for watershed scale assessment and linking projects along county borders;
- a comprehensive planning map library, data dashboards and accompanying database to show where forest restoration activities are being conducted and planned in the Sacramento River Watershed (SRW);  
<https://buttecounty.sacriver.org/maps/build-a-map>
- reporting templates to facilitate and support efforts to secure adequate long-term
- funding and independent oversight for monitoring programs;
- a platform that includes interactive maps, dashboards and web-pages to involve
- stakeholders and facilitate regular communication;
- consolidation of all project and treatment data (including CEQA) for northern California that allows lead agencies to review and update this data and provide updates to local, regional, state, and federal partners; and
- a parcel tracker with the ability to add and remove parcels, configure and revise



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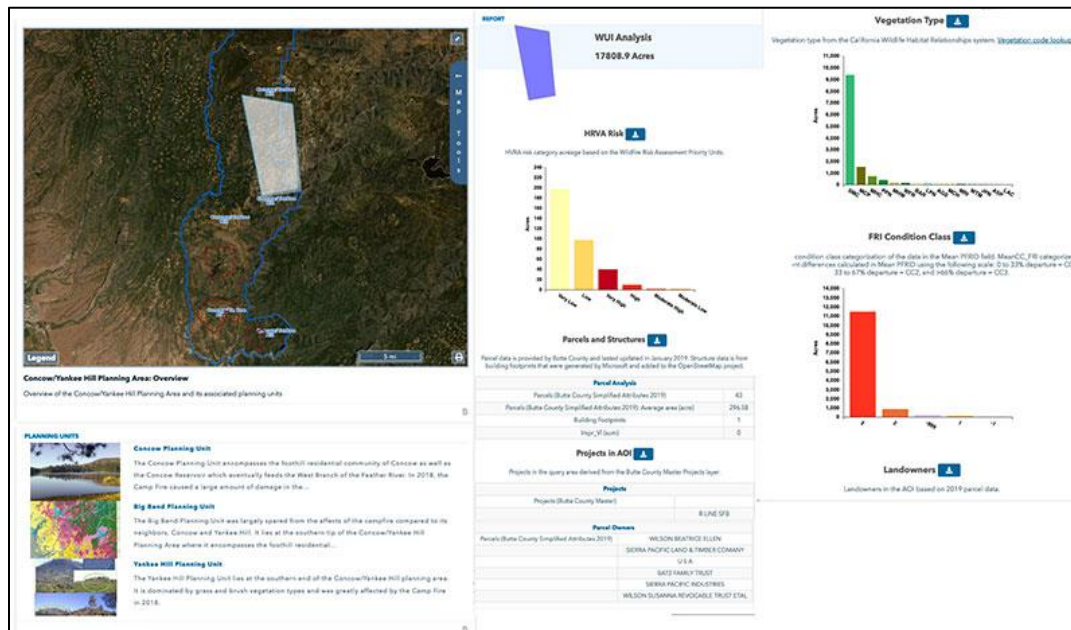
metadata and attributes and annotate with data and information.

<https://buttecounty.opennrm.org/maps/10473>

- Fuels Reduction and Forest Health multi-stakeholder Project Aggregation:
  - Projects: <https://buttecounty.opennrm.org/projects/butte-county-projects>
  - Sample Planning and Project Area Profiles and Analysis for Local Fire Safe Council Grant Writing: <https://buttecounty.opennrm.org/projects/county-planning-areas>
  - Sample Planning Area: <https://buttecounty.opennrm.org/wiki/74>



Data Directory and Interactive Map

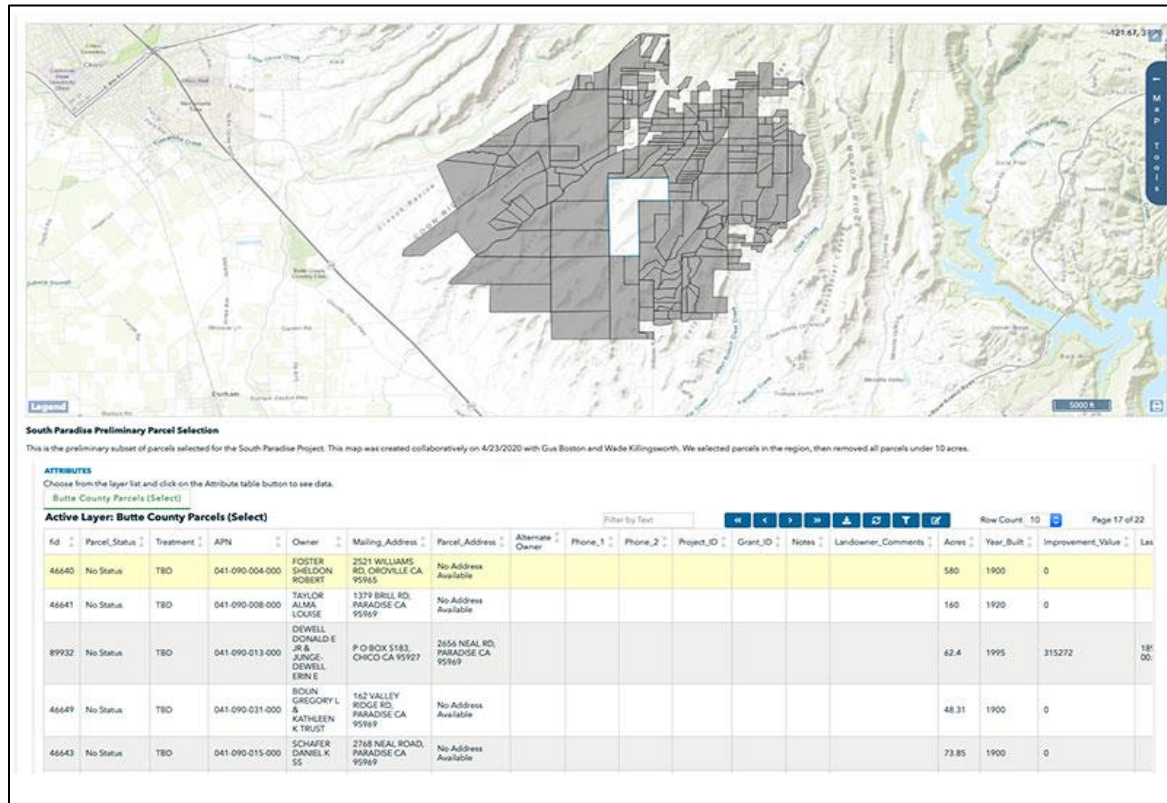


Planning and Project Area Analysis





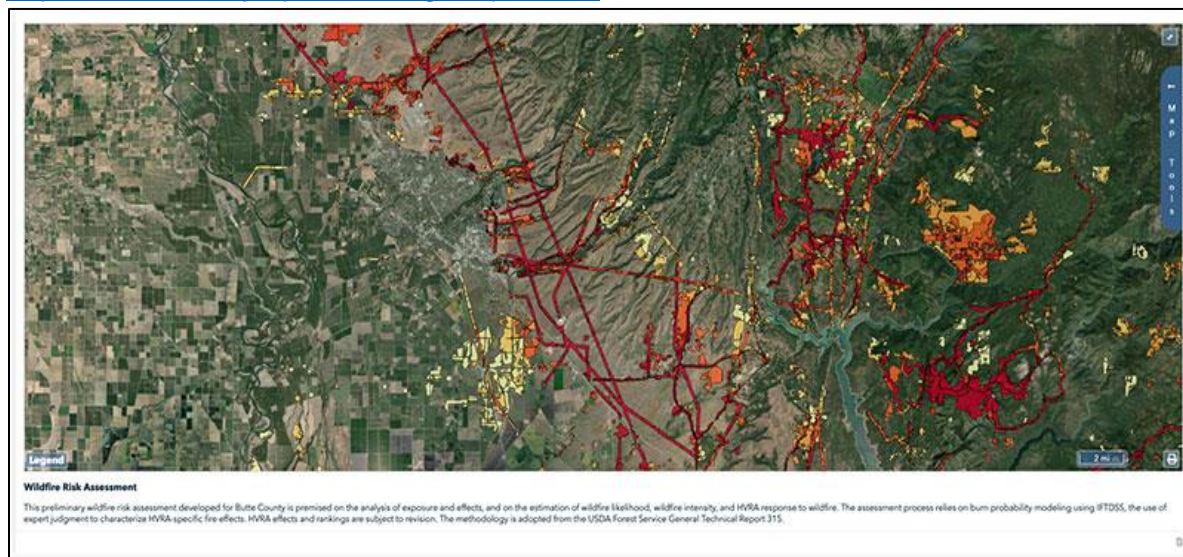
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Parcel Project Tracker

34 North with support from the Project Team aggregated and processed all primary *Highly Valued Resource and Asset (HVRA)* data and developed primary HVRA products and multiple scales. 34 North with support from SRWP created and distributed a HVRA survey to stakeholders including members of the CWPP workgroup/BCCG for a second iteration of analysis and developed a comprehensive risk analysis for the county:

<https://buttecounty.opennrm.org/maps/8438>



Wildfire HVRA Risk Survey and Assessment



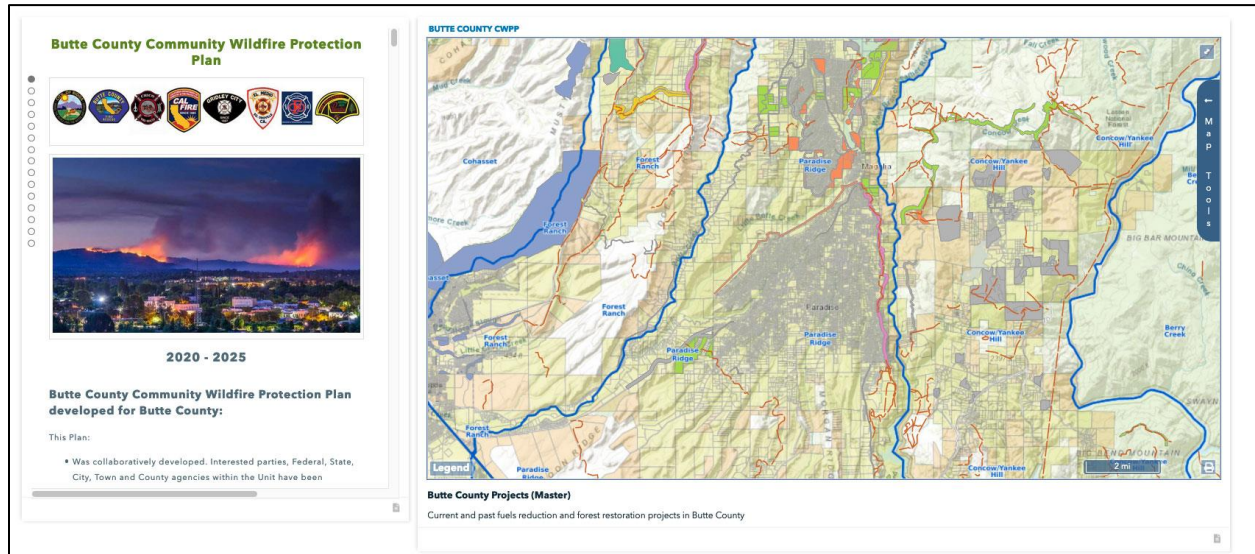


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In addition to the scope of work described in the original agreement, 34 North with support from members of the Project Team completed the following product enhancements and tasks based on the needs of the community and stakeholder feedback:

**Interactive CWPP:** <https://buttecounty.sacriver.org/cwpp/community-wildfire-protection-plan>

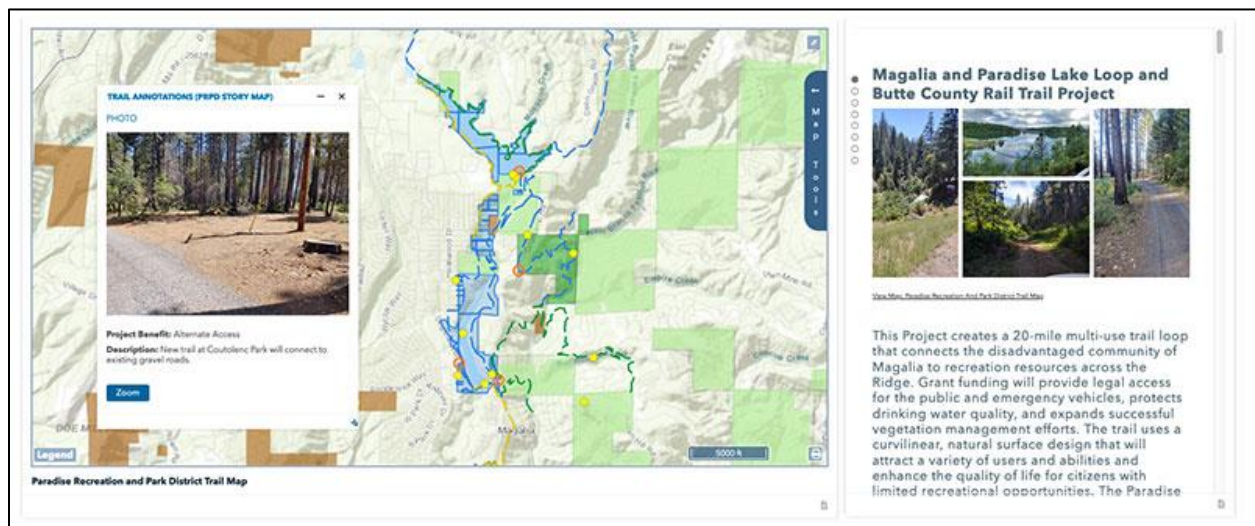


Interactive CWPP Map Story

**Map Stories and County Additional Use of Platform:**

Paradise Parks and Rec Fuels Buffer and Trail Story:

<https://buttecounty.opennrm.org/projects/10117>



Parks and Rec Map Story to Promote Parks as Buffers



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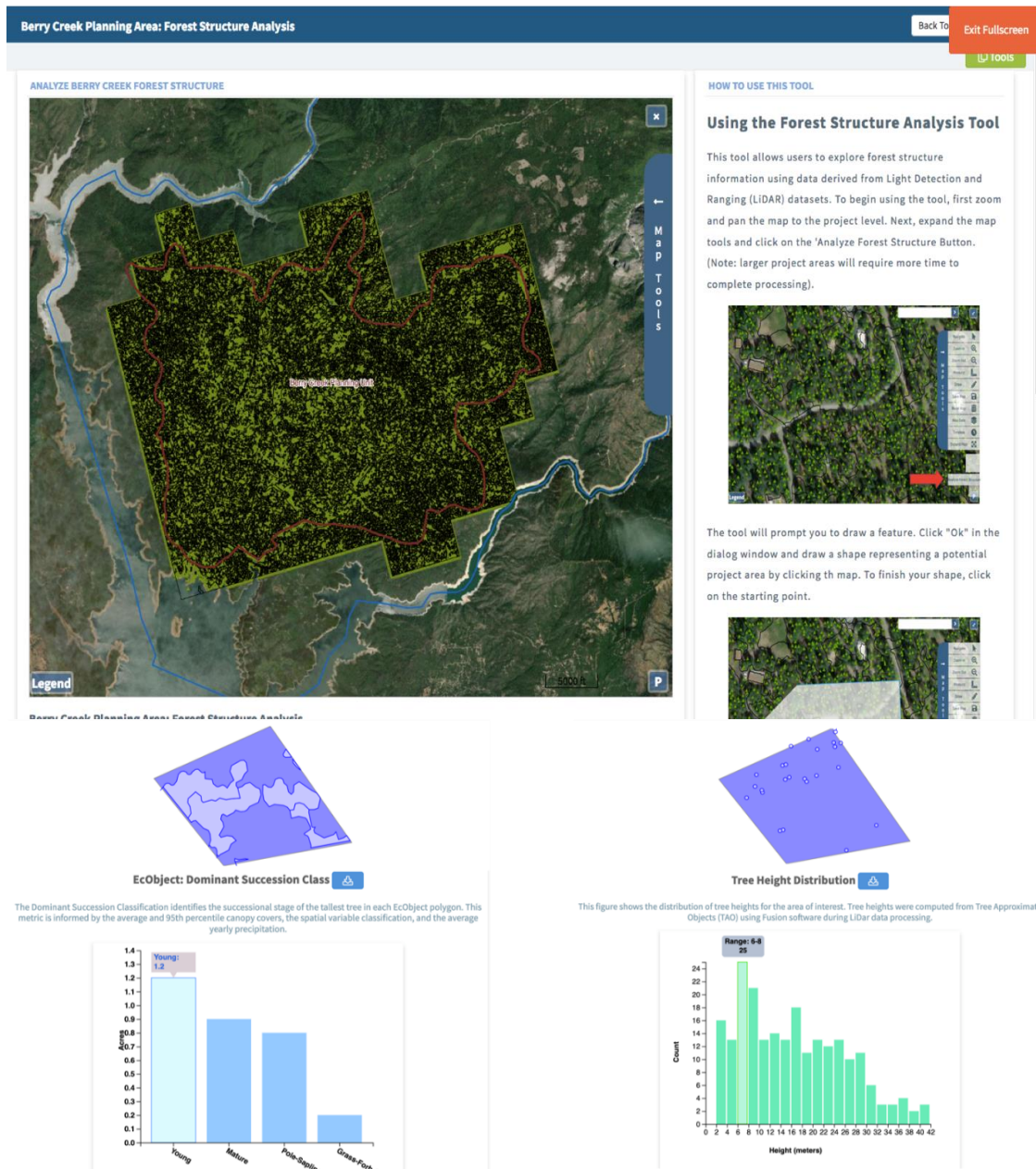
## Map Stories and County Additional Use of Platform (cont'd):

Vegetation Overview: <https://buttecounty.sacriver.org/wiki/vegetation>

Tree Mortality View: <https://buttecounty.sacriver.org/wiki/tree-mortality>

## LIDAR Data Processing, Land Management Unit and Forest Structure (EcObject Implementation):

The contract asked that we host completed LiDAR data where available. 34 North tracked down LiDAR from USGS (pre and post camp fire) from a raw point cloud, ran all processing, made available for use in a project area analysis, and set up forest structure analysis tools. This includes extra data processing for post Camp Fire LiDAR.



LiDAR Forest Structure Analysis Tools

Grant Number: 5GG17123





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**Historic Fire conditions dashboard including analysis of are burned in WUI:**

<https://buttecounty.opennrm.org/cwpp/historic-fire-conditions>

<https://buttecounty.opennrm.org/maps/11349>

**Data Analysis Tools:**

1. Vegetation and Fire Return Interval Analysis Tool: Measure conditions for vegetation,
2. Forest Activities Tool: CALFIRE THP by status, CALFIRE THO by Silviculture treatments, THP by Landowners, THP by Year, Facts Fuel Treatments, Activity, Treatment Type, Year
3. Project Area and WUI Analysis Reporting Tools: Queries project area to answer key grant questions including: HVRA Risk, parcel analysis, vegetation type, FRID class, fire hazard severity, ownership, responsibility and protection areas, parcels and structure analysis including improvement values, general plan designations, valuable assets, and projects in the AOI.
4. Priority Analysis Tool: Describes if project AOI qualifies as a state and federal priority area.
5. Project management parcel database customized to incorporate PLSS, Zoning, Vegetation, etc.

**Additional Resources:**

- Preparing for wildfire resources: <https://buttecounty.sacriver.org/wiki/9205>
- Best available science repository: <https://buttecounty.sacriver.org/docs/publications>
- Collaborative support and workspace: [https://buttecounty.sacriver.org/asset\\_management/current-agenda-and-documents](https://buttecounty.sacriver.org/asset_management/current-agenda-and-documents)

**County Data Product Examples:**

- WUI/USFS Prioritization: <https://buttecounty.sacriver.org/maps/9270>
- Biomass Assessment Data: <https://buttecounty.sacriver.org/maps/9298>
- WUI Risk Assessment: <https://buttecounty.opennrm.org/bookmarks/11022>
- Fuels Modeling: IFTDSS 2019, ran again post camp fire <https://buttecounty.sacriver.org/maps/8166>
- Regional Treatment Map: <https://buttecounty.opennrm.org/bookmarks/9290>
- Land Management Units: <https://buttecounty.opennrm.org/maps/9617>
- Ingress/Egress: <https://buttecounty.opennrm.org/maps/8037>

34 North with support from the members of the Project Team conducted more than 30 in person and remote workshops and training for Butte County stakeholders responsible for managing forested lands in Butte County and will continue to work with stakeholders and partners throughout the county and state to identify and secure funding and other opportunities to provide additional support and training.





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SRWP and 34 North met with SNC staff and members of a consultant team that is working with the SNC to review the Tahoe-Central Sierra Initiative (TCSI) pilot project and identify tools and lessons learned that could be applied in Butte County and other parts of the Sierra and shared our experiences using data and decision support tools in a forest collaborative setting. The consultant team will develop and recommend specific actions for the SNC to increase the pace and scale of forest restoration, while promoting and advancing the values and needs of collaborative decision-making bodies, such as the collaboratives associated with the TCSI that will be extremely helpful in wildfire mitigation planning.

Working with the local FSCs, CALFIRE Butte Unit and RCD, we have created a comprehensive countywide data picture for fuels reduction and forest restoration projects and activities, an interactive CWPP and a regional baseline data and conditions workspace for the newly formed BCCG. This Project has supported substantial grant writing programs for the development of future biomass facilities, fuels reduction and forest restoration activities as well as an innovative parks buffer plan in partnerships with the *Town of Paradise* and the *Paradise Recreation and Parks District* and a recreational land swap for the FAC of which SRWP is a member.

**Wildfire Impact** (i.e. was the grant/activity impacted by a wildfire in the immediate vicinity (within 1 mile). If yes please email [FPGrants@fire.ca.gov](mailto:FPGrants@fire.ca.gov) immediately.)

N/A