



OLYMPIC VALLEY PUBLIC SERVICE DISTRICT



EXHIBIT F-5
11 Pages

COMMUNITY WILDFIRE PROTECTION PLAN

DATE: November 17, 2020

TO: District Board Members

FROM: Allen Riley, Fire Chief and Mike Geary, General Manager

SUBJECT: Contribute a maximum of \$10,000 to prepare a Community Wildfire Protection Plan in cooperation with the Olympic Valley Firewise Council.

BACKGROUND: A key objective of the Olympic Valley Firewise Council is to apply for forest fuel reduction grants (from agencies like Cal Fire), which are very competitive. To be successful, grant applications require a Community Wildfire Protection Plan (CWPP).

A CWPP identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will mitigate the risk of wildfire. A CWPP will address issues such as wildfire response, hazard mitigation, community preparedness, and/or structure protection.

The Olympic Valley Firewise Council has identified the need to hire a consultant to write a CWPP for the Valley. The estimated cost to have a consultant prepare the CWPP is \$28,800. The Firewise Council has received funding commitments from:

- Squaw Valley/Alpine Meadows Ski Resort: \$10,000.
- Friends of Squaw Valley (Olympic Valley Community): \$5,300.
- Resort at Squaw Creek: \$3,500.

DISCUSSION: Preparing a CWPP for Olympic Valley will benefit the whole community. The plan will include all interest groups and stakeholders within the Valley, address a broad range of wildfire protection issues, establish a well-defined fuels management program, and define public safety priorities. For our community to take full advantage of the opportunities associated with being a Firewise Community and be eligible for potential grant funding for forest management activities, we must first prepare a CWPP. It is possible that future grant monies may become available to assist the community in meeting the priority goals established in the CWPP process.

- ALTERNATIVES:**
1. Approve a maximum \$10,000 budget amendment to complete a CWPP for the Olympic Valley Firewise Community and authorize the General Manager to execute contract documents with Deer Creek Resources.
 2. Deny the request from the Olympic Valley Firewise Council to help fund the CWPP.

FISCAL/RESOURCE IMPACTS: The District's cost share to fund preparation of the Olympic Valley CWPP would be no more than \$10,000 and be paid during FYs 2020-21 and 2021-22. District staff have committed to administering the contracting with the consultant, Deer Creek Resources, as well as providing engineering services to assist in the preparation of GIS mapping needed to complete the CWPP.

RECOMMENDATION: Staff recommends approving a budget amendment of \$10,000, funding the proposed project for an amount not to exceed \$10,000, and authorizing the General Manager to execute an agreement with Deer Creek Resources and Wildland Rx on behalf of the Olympic Valley Firewise Council for a total amount not-to-exceed \$28,800.

ATTACHMENTS: Proposal from Deer Creek Resources and Wildland Rx.

DATE PREPARED: November 10, 2020.

Olympic Valley Community Wildfire Protection Plan

Bid Proposal by Deer Creek Resources (DCR)

Scope of Work and Deliverables

Deer Creek Resources will fulfill the following tasks:

Task 1: Convene Decision Makers and Involve Land Management Agencies.

As part of this process WildlandRx (WRx) will identify and contact stakeholders with the assistance of the Olympic Valley Fire Department throughout the community, informing them about the CWPP update and soliciting any relevant GIS data. Due to COVID 19 restrictions this will be a Zoom meeting.

Task 2: Gather Existing GIS Data.

DCR will work with Olympic Valley Fire Department (OVF) to obtain data layers compiled by the Olympic Valley Public Service District (OVPSD) and Placer County GIS, which will be used to establish a community base map. Layers will include but are not limited to terrain, roads, fire and ignition history, existing fuels breaks and fuel reduction projects, sensitive habitat, etc.

Task 3: Develop a Community Risk Assessment Map

WRx's process for developing the Community Risk Assessment map involves these subtasks:

- 3.1 - Establish a base map
- 3.2 - Conduct community risk assessments – using interviews, surveys, modeling
- 3.3 – Develop Fire Behavior Modeling
- 3.4 - Establish a local definition and boundary for the WUI
- 3.5 - Determine local priorities for protection of life, property, and infrastructure
- 3.6 - Establish recommendations on hazardous fuel and structure ignitability reduction

Subtask 3.1 Establish a base map

Creating a base map that outlines the communities is the foundation of a CWPP. It is crucial that key individuals in the communities, private land managers, fire district reps, USFS, and CAL FIRE participate in the process of developing the base map.

Our planning process is completely map-based. At the beginning of the project, DCR will create a paper base map, which will be brought to every meeting, interview, or site-survey, and updated with new information as we receive it. The initial map will include roads, streams, topography, and water source and fuels project data from all previous Tasks. We will add parcels, building footprints, community boundaries as delineated by the US Census Bureau, fire district boundaries, and any other available GIS data which helps to tell the story.

Subtask 3.2 Conduct community risk assessments – interviews, surveys, modeling

Wildfire hazard and risk are not constant across the landscape. Wildfires need an ignition source (lightning, humans, powerlines), and are affected by weather, topography and fuels. Where these

elements come into alignment, *(a fire is ignited in a place where a dry wind can blow it up a steep, sunny, fuel-covered slope)* fire behavior is the most dangerous. We will use fire behavior models to identify areas with potentially dangerous wildfire hazard.

Task 3.3: Develop Fire Behavior Modeling

Modeling wildfire behavior

Fire behavior modeling uses computers and fuels, weather, and topographic information data to illustrate potential wildland fire behavior in easily-understood graphics. WildlandRx develops and runs the FARSITE and FLAMMAP fire behavior models. These programs were created by the US Forest Service for use in quantifying wildfire hazard across landscapes. The models will use local weather data and fuel model data from Land Fire

We will create a computer model of potential wildfire behavior across the CWPP area, and use the results to:

- Identify high wildfire hazard areas
- Identify tactically useful locations for fuels management projects
- Prioritize areas for fuels treatment

We will add the fire hazard data from our modeling exercises to the project base map and bring these maps to meetings with key stakeholders. Also, we will use these maps to identify areas that we will visit to determine if the modeling gives a true picture of the fire behavior.

Subtask 3.4 Establish local definition and boundary for Wildland Urban Interface

We will use our preliminary wildfire hazard mapping/modeling data, information contributed by locals during our meetings and interviews, and County GIS data showing improved parcels, building footprints, and contiguous blocks of hazardous vegetation to delineate the WUI within the project area.

Subtask 3.5 Determine priorities for protection of life, property and infrastructure

We will use historic fire ignition data from the USFS to identify areas of high, moderate, and low risk of ignition. We will overlay ignition hazard, potential wildfire behavior (from our modeling efforts), and parcel data from the County Assessor. High risk areas with high housing densities will be ranked as the highest priority for projects. This evaluation will also be used to identify moderate and low priority areas for fuel treatments. Paper maps showing the ranking data from this process will be printed for each of the community areas identified and will be used in meetings with the OVF and other stakeholders to prioritize potential hazard reduction projects. Potential treatment methods for those projects that are field reviewed will be identified by a Registered Professional Forester (RPF) during field reconnaissance.

Subtask 3.6 Establish recommendations to reduce fuels and structural ignitability

The fire behavior modeling will help us to prioritize areas with high exposure to damage by wildfire. Meeting with the fire protection district personnel and the community with these maps will assist in the prioritization of projects and needs of the community to better protect them from a wildfire. Reducing potential structure ignitability will require surveys of high-risk area homes to look at their ignitability

Task 4: Develop Fuels Treatments and Community needs assessment: Work with the project RPF, OVF, and stakeholders to develop proposed fuel reduction treatment areas consistent with overall community hazard reduction priorities. Identify any other wildfire protection needs that the community may have that are not fuels reduction projects such as community education, water resources, fire protection assistance, or other community needs that can help protect the community from wildfires

DCR will use the layers gathered in the previous task to develop a community basemap to be used at stakeholder meetings. Agency and District representatives will be able to draw potential projects onto the master paper map, validate mapping of existing fuel hazard reduction projects, document their areas of greatest fire-related concern, and record any good background information on past fires, successful firefighting tactics, and site-specific recommendations. The community basemap will also be used at community meetings to allow community members to identify their greatest areas of concern. The information drawn on the paper map will be digitized for use in the final plan. Barry Callenberger will facilitate the meetings.

The purpose of the stakeholder meetings is to develop fuel reduction projects for high-hazard areas with a known hazard of structural ignitability. It is assumed that stakeholders will be present at the meeting to share their issues, concerns, and opportunities, and contribute their knowledge of the firescape.

WRx and the community will work closely to coordinate this ‘project design’ meeting, with OVPSD providing meeting locations, and identifying the potential public and private partners who should attend. A community representative will coordinate the process of inviting people to the meeting.

Before and during the meeting WRx will secure updated information related to:

- Background Information
- Existing risks, hazards, values and fire suppression capability public education about wildfire risks and fire prevention needs.
- Evaluate evacuation plans and identify potential weaknesses or need for improvement.
- Organizational structure including any community, district or regional groups actively involved in supporting community outreach/education, fuel modification projects, fundraising or other activities to support defensible communities.
- Priority values to be protected and strategies to achieve desired future conditions.
- Action and Methodology (Implementation Strategy)
- Specific projects and actions required to meet goals and objectives, implement strategies and create the desired conditions.
- Proposed projects will be listed by priority and included in an Appendix. Project list will be designed as five-year plan that can be updated annually (or as needed).
- Roles and Responsibilities Describes roles and responsibilities of individual landowners, and communities, county, state and federal agencies.

After the design meeting, DCR will use information from Task 3 and the design meeting to develop a spreadsheet and map of priority projects.

Subtask 4.1 The project RFP will review the projects developed for the CWPP to determine their potential effectiveness. Any treatments that do not serve to moderate fire behavior and reduce fire hazard will be eliminated from the project list spreadsheet. The RFP will also make specific treatment recommendations for each project including suggestions for the type of equipment that should be used.

This spreadsheet will be sent back to the stakeholder groups for their review and approval. Prior to publication of the draft CWPP, WRx will meet with the group for a second time (again in coordination and with support from OVPSD) to ensure the final projects are consistent with the fuels committee's original guidance, and to make any minor adjustments to the proposed projects list. This second meeting will also give key stakeholders an opportunity to preview the draft CWPP before public meetings begin.

Subtask 4.2 Develop a list of other community needs such as evacuation strategies, reducing structure ignitability, prevention needs, landowner CPRC 4291 enforcement or other local regulation enforcement, water resources, fire protection needs and any other wildfire protection community needs as identified.

Task 5 Facilitate 1 Community and Stake holder meeting in the Community.

WRx will facilitate the meetings by developing the agenda and provide notes from the meetings to become part of the project Package. With the help of OVPSD to arrange the meeting locations and provide a list of the county stakeholders and interested parties.

Participate one community meeting and develop draft CWPP document

An important step in the development of a CWPP is convening stakeholders and interested public in a collaborative effort to develop the CWPP. OVPSD and WRx will work together to develop the community meeting agendas during the CWPP process.

Meetings will occur in this order:

1. Project kick off meeting
2. Facilitate one stakeholder meeting
3. Facilitate one community meeting
4. Review of the final CWPP draft
5. Final Stakeholder meeting to ask for stakeholder comments on draft CWPP.

*The stakeholder meeting will be held to familiarize the stakeholders with the CWPP process, to gather data needed for the GIS mapping, and to identify potential projects. **All meetings will be conducted on line with a Zoom meeting format due to Covid 19 restrictions.**

The draft CWPP will be distributed as a Microsoft Word document, and stakeholders can either submit written comments, or make their changes directly into the digital document using Word's 'Track Changes' feature.

Task 6 Finalize the CWPP with updated prioritized project list

After the community meetings and stakeholder/community review of the draft CWPP, DCR will prepare a final CWPP document that will be submitted to OVPSD. One electronic copy of the document and one paper copy will be submitted as the final package.

All work will be in compliance with the requirements of the Community Wildfire Prevention plan set forth in the National Fire Plan and recommendations found in “Preparing a Community Wildfire Protection Plan A Handbook for Wildland Urban Interface Communities” March 2004

Wildland Rx will:

- Work closely with OVPSD to independently gather the appropriate data and/or information from various sources, and to adequately address identified tasks.
- Provide clear and thorough deliverables, incorporating solutions to address gap analysis or best practices, as needed, in a timely manner to meet deadlines.
- Meet with OVPSD to provide project updates to receive review input.
- Attend only the meetings as set forth in our proposal to effectively complete the project. Meetings are costly and will only be added to the proposal at an additional cost.

BID Break down:

TASK	<i>Deer Creek Hrs</i>	<i>Wildland Rx Hrs</i>	<i>Cost</i>
TASK 1 Convene Decision Makers & Stakeholders		10	
TASK 2 Gather Existing GIS Data	20		
TASK 3 Develop a Community Risk Assessment Map	30	20	
TASK 4 Develop Community Wildfire Protection needs, establish project areas and priorities: <ul style="list-style-type: none"> • Fuels Treatment • Education • Fire protection • Prevention • Enforcement 	30	80	
TASK 5 Meeting; 1 Community & Stakeholder	8	10	
TASK 6 Finalize CWPP and Develop Project List	20	40	
TOTAL HOURS	108	160	
TOTAL COST	\$10,800	\$18,000	\$28,800

Project Timeline

Task	Begin Date	End Date
TASK 1 Convene Decision Makers & Stakeholders	4/1/2021	
TASK 2 Gather Existing GIS Data		
TASK 3 Develop a Community Risk Assessment Map		
TASK 4 Develop Community Wildfire Protection needs establish project areas and priorities: <ul style="list-style-type: none"> • Fuels Treatment, • Education, • Fire protection • Prevention • Enforcement 		
TASK 5 Meetings; 2 Community & 3 Stakeholder		
TASK 6 Finalize CWPP and Develop Project List		4/1/2022

Statement of Qualifications for Wildland RX and Deer Creek Resources

WildlandRx

Based in the Sierra Nevada Mountains of California, WildlandRx provides consulting services to those seeking a safer co-existence with wildfire. We use our personal experience as wildland firefighters, coupled with modern mapping and planning tools, to develop mitigation strategies for communities at risk of wildfire. Our products include wildland fire behavior analysis, Community Wildfire Protection Planning, project implementation, expert witness testimony, and wildland fire training. These services lead to development of strategies and tactics to reduce the losses from wildfires to natural resources and private property. We also provide training courses as a course coordinator and instructor for wildland fire courses covering both prescribed fire and wildfire suppression operation positions. Upon request Wildland Rx can provide the services of a Registered Professional Forester

Barry Callenberger - Principal

Barry has over 48 years of wildfire experience. During this time, he has worked as a firefighter, Hotshot Crew Superintendent, district fuels officer, and as deputy regional chief. Since 1997, he has worked in the private sector, consulting on numerous wildland hazard mitigation projects throughout the western United States.

As owner and principal for Wildland Rx, Barry has done numerous projects in fuels consulting work. Prior to opening his own business he was, for seven years, in charge of the Prescribed Fire and Fuels Management Division of [North Tree Fire](#). North Tree Fire is a private contracting company that provides support equipment and services for wildland fire suppression and fuels management. Barry began his career with the U. S. Forest Service on the Cleveland National Forest (R-5) in 1972. From 1982-1987, Barry ran the [Eldorado Interregional Hotshot Crew](#). In 1987 Barry became the Fuels Officer on the Placerville District of the El Dorado National Forest. In 1993, Barry was promoted into the Regional Prescribed Fire/Fuels Specialist position with the Pacific Southwest Region of the Forest Service, where he finished his Federal career.

Mr. Callenberger is skilled in the use of fire behavior analysis computer programs such as BEHAVE, FARSITE FLAMAP, NEXUS, FUELS MANAGEMENT ANALYST PLUS, FIREFAMILY Plus, NFSPUFF, SASEM, RAMS, PCHA, IIAA, and FOFEM. As an employee of North Tree Fire, he managed contracts for prescribed fire and fuels management, developed prescribed fire burn plans, and provided direction on suppression approaches, conducted fuels analysis, and managed heavy equipment and burn personnel on prescribed burns and fuels projects.

Wildland Rx Community Wildfire Protection Planning Projects

- **Tulare County Mountain Communities CWPP** Worked with Steve Holl Consulting to develop a CWPP for the mountain communities of Tulare County. Designing Treatment areas, treatments, and modeling the fire hazard for the numerous communities within the mountains of Tulare County
- **Sierra County CWPP** : Updated the Sierra County CWPP in 2014 added new projects and identified community needs for protecting it from Wildfires. Facilitated the stakeholder and

community meetings, provided the fire behavior assessment developed fuels treatments and assisted in developing treatment priorities

- **Foothill Communities of Yuba County CWPP:** Worked with Deer Creek Resources to create the CWPP for the foothill communities of Yuba County, Facilitated the stakeholder and community meetings, provided the fire behavior assessment developed fuels treatments and assisted in developing treatment priorities
- **Community Wildfire Protection Plan for the West Slope of the Sierra Nevada in Placer County Community CWPP** Worked with Steve Holl Consulting to develop the CWPP designing treatment areas, treatments and modeling the fire hazard assessment for the communities.
- **Amador County Fire Safe Council CWPP** Wrote a CWPP for the community of Volcano
- **El Dorado Fire Safe Council CWPP** Wrote a Community Wildfire Protection Plan for Grizzly Flat, and a CWPP for Central El Dorado County Communities which included the communities of Placerville, Pollock Pines, Diamond Springs, Camino, Pleasant Valley, Sly Park, and El Dorado developed Evacuation Planning tools that can be used by the communities to plan evacuations. Also have written Fire Plans for the communities of Gold Ridge, Royal Equestrian Estates
- **Tahoe Regional Planning Authority (TRPA)** Combining all the Tahoe Basin Community Wildfire Protection Plans into one document containing all the Basin CWPPs analyzing projects and establishing project priorities based on Risk and Hazard analysis.
- **Tahoe Basin California Fire Safe Council CWPP** Develop a fuels treatment strategy for the four fire protection districts on the California side of the Tahoe Basin. Present the strategy to the fire districts and the community as part of a Community Wildfire Protection Plan
- **California Department of Forestry and Fire Protection, Cameron Park Fire District** Developed Risk and Hazard maps for Cameron Park and Fire behavior programs for community meetings using FARSITE and FLAMMAP
- **Truckee Fire Protection District** Developed a CWPP for the district and risk assessment

Technical Wildfire Fuels Assessment, Planning, and NEPA Experience

- **Region 5 USFS Hazardous Fuels Review** Evaluate the Fuels program on 8 National Forests in California
- **Hoopa Valley Tribal Forestry** Write a Fuels Management Plan and the necessary NEPA documentation for the Hoopa Valley Reservation which will allow them to create a funding stream for fuels treatment projects. Prioritize Projects to provide wildland fire safety for resources and the community
- **Plumas Corporation, Plumas County Fire Safe Council** Validation of existing fuel profiles, analysis expected fire behavior using BEHAVE and FLAMAP, identify and map fuel treatment projects, and [prioritize fuels treatment projects for the county.](#)
- **Eddy Environmental Impact Statement:** Participated as a subcontractor to Red Inc. on the development of an EIS on the Klamath National Forest. Providing fire behavior modeling and fuels and fire input to the document and providing a Fire Shed Assessment for the project

area. Fire Shed Assessment is an interdisciplinary approach to modeling fire behavior and developing a collaborative approach to solving fire and fuels problems with the communities.

- **San Bernardino NF Environmental Assessment:** Presently participation as a subcontractor to Tetra Tech, in the development of three Environmental Assessments on the San Bernardino National Forest. Providing fire behavior modeling and fuels and fire input to the documents as well as the Air Quality section to the Baldwin Lake and Bluff Mesa Environmental Assessment and the Santa Ana Environmental Impact Statement.

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Other Wildfire Management and Planning Experience

- **Instructor for S490 Advanced Fire Behavior:** US Forest Service
- **Cadre leader and Instructor for the US Forest Service Prescribed fire Burn Boss RX 300 Class and Smoke Management RX450** I have instructed and lead the classes for the Pacific Southwest Region of the Forest Service. The Classes involved teaching the students all aspects of Burn Plan development through proper layout of burns, developing resource objectives, and prescriptions. Rx 450 focuses on proper smoke management and smoke management plans
- **Amador County Fire Safe Council** Fuel reduction project layout and administration of contracts for fuels reduction.
- **El Dorado County Fire Safe Council:** Wrote grants for eight projects for the FSC and administered ten grant awarded projects for mastication and hand clearing for the FSC
- **Army Corp of Engineers, Fort Ord,** Assisting the Corps and the Presidio of Monterey Fire Department in developing a prescribed fire program for ordinance removal developing the burn plan and implementing the prescribed burn and aerial ignition.

Deer Creek Resources, LLC

Deer Creek Resources (DCR) provides consulting, mapping, predictive modeling, and media design services to land fire management agencies. We use technology, storytelling, photos, and maps to bridge the divides, bringing people to the table with a common frame of reference. Our staff of 12 call-when-needed GIS professionals are available on short notice for both mapping projects and emergency response GIS assignments.