



COMMUNITY WILDFIRE PROTECTION PLAN CONSULTANT

SUBMITTED TO

City of Reno, Nevada
1 E. 1st Street, Suite 1
Reno, Nevada 89501

REQUEST FOR PROPOSAL 2025-06
NOVEMBER 14, 2024

SUBMITTED BY

SWCA Environmental Consultants
961 Matley Lane, Suite 190
Reno, Nevada 89502



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.®

961 Matley Lane, Suite 190
Reno, Nevada 89502
Tel 775.686.6379
www.swca.com

November 14, 2024

Marcie Wood, Management Analyst – Procurement
City of Reno
P.O. Box 1900
Reno, Nevada 89505

Re: Community Wildfire Protection Plan / RFP No. 2025-06

Dear Marcie Wood and Members of the Selection Committee,

SWCA Environmental Consultants (SWCA) has assembled a highly qualified team and a tailored approach to develop a community wildfire protection plan (CWPP) to address the unique needs of the City of Reno (City). The CWPP will comply with the Healthy Forests Restoration Act and the National Cohesive Wildland Fire Management Strategy. Our team will bring personal commitment and investment to this project, which will benefit the overall plan and the impact to our community. SWCA's unique blend of national expertise and local experience means that we can provide a robust, actionable plan to mitigate wildfire risks and enhance community resilience, providing the following advantages:

- **Industry leaders in developing CWPPs across the country.** SWCA has completed wildfire work in over 30 states and ecoregions across the United States, including Nevada, California, Rocky Mountains, and the Sierra Nevada, demonstrating our ability to produce high-quality, tailored CWPPs that meet the unique needs of diverse communities and ecoregions. We have a deep bench of experts across the country (including specialists in fire and fuels planning, wildfire behavior modeling, public outreach and education, and federal and state fire operations and management) to deliver on this project completely in house.
- **Local and recent experience from the Sierras.** Our team includes wildfire experts who work and live in the city of Reno and are very familiar with northern Nevada's wildfire concerns. SWCA recently completed CWPPs for the Town of Truckee and Inyo County (California) and received positive feedback on our unique approach to fire planning, public outreach, and technical expertise. **Jayden Peterson** will serve as the Project Manager. As a forester, wildland firefighter, and former Nevada Division of Forestry (NDF) employee, Jayden understands the challenges to wildfire management that are unique to Nevada. **Paris Krause** will serve as Assistant Project Manager, a role she filled during the Truckee CWPP.
- **Relationships with local fire management agencies.** As mentioned above, Project Manager Jayden Peterson worked for NDF, and he recently provided hazard tree removal oversight on behalf of NDF for NV Energy. Through SWCA's collaborative, programmatic vegetation management planning work on the Truckee River, we have also interfaced with City of Reno Fire and other emergency service organizations. We have further built relationships with local fire management agencies through the Town of Truckee CWPP.
- **Truckee Meadows stakeholder engagement experience.** Through SWCA's collaboration with the One Truckee River Partnership, we helped assemble a Technical Working Group (TWG) and led interactive TWG meetings and on-on-one interviews to execute programmatic vegetation management planning for the urban stretch of the Truckee River. Our thoughtful approach to stakeholder engagement has been the biggest driver of the project's success, and we intend to use lessons learned from that planning effort to guide the City's CWPP development.

- **Grant funding and management experience.** Management of grant-funded planning efforts requires strong attention to detail and strict adherence to ambitious project schedules. SWCA has worked on dozens of grant-funded fire and conservation programs, so we will support the City to not only meet project milestones on time but also ensure that we provide adequate support with grant reporting.
- **Reduced labor rates.** SWCA has dropped our labor rates by 10% (cost savings to the City), which demonstrates our commitment to this important work. This will allow the City to opt for inclusion of all tasks (including optional tasks) within the maximum contract amount.

SWCA acknowledges the receipt of the Request for Proposal (RFP) #2025-06 for the Community Wildfire Protection Plan Consultant, inclusive of all 38 pages of the RFP document. We have included optional tasks for the City's consideration and are open to negotiation with the City over scope and budget.

Any questions or correspondence regarding our proposal during the review and evaluation process should be directed to proposed **Project Manager Jayden Peterson** at (406) 202-0099 or Jayden.Peterson@swca.com. For contract negotiations between the City and SWCA, please contact Matt Villaneva* at (775) 298-6563 or Matt.Villaneva@swca.com.

Sincerely,



Jayden Peterson, B.S.
Project Manager
Primary Point of Contact



Matt Villaneva, B.S.
Natural Resources Director
*Authorized to negotiate on behalf of SWCA



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PROJECT UNDERSTANDING

In a span of 10 years, the City of Reno (City) has experienced significant wildfires, encompassing over 22,000 acres, underscoring the risk that wildfires pose to the City and its neighborhoods. This recent wildfire history and the risk that future wildfire poses to the community highlights the urgent need to update and tailor the City's community wildfire protection plan (CWPP) to include new at-risk communities and incorporate data and information made available since the 2015 CWPP update. The SWCA Environmental Consultants (SWCA) team is well equipped to address these challenges and collaborate with stakeholders to develop an actionable, effective CWPP for the City.

Our team will work closely with the City, local fire authorities (e.g., Truckee Meadows Fire Protection District, Nevada Division of Forestry [NDF]), the U.S. Forest Service (Forest Service), the Bureau of Land Management (BLM), local tribes, NV Energy, other Core Team members, and the public to develop a comprehensive CWPP that is tailored to the City's particular needs and objectives. In addition, the final CWPP will adhere to all minimum state standards and follow the recommendations for developing a CWPP provided by the Society of American Foresters, in collaboration with the National Association of Counties, National Association of State Foresters, Western Governors' Association, and Communities Committee, outlined in *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities*.¹ We pride ourselves on final plans that are locally tailored while adhering to the Healthy Forest Restoration Act (2003), the International Association of Fire Chiefs' *CWPP – Leader's Guide*, and the Federal Emergency Management Agency's *Creating a CWPP* (2020). SWCA is well acquainted with communities that have experienced recent large fires and has a clear understanding of the expectations for the City CWPP update. This includes considering the current and future challenges the City faces, such as:

- Changing environment (climate trends, population distribution, infrastructure development)
- High proportion of surrounding public lands with recreational uses
- Decreasing forest and rangeland health
- Interspersed values at risk

In considering these challenges, we also understand the need to engage and collaborate with stakeholders and the public to ensure a holistic approach. The purpose of the CWPP is to provide stakeholders and those living in the city of Reno with an overview of wildland fire risks, hazards, and values within the planning area; recommended actions to reduce the risk of catastrophic wildfire to rural and suburban neighborhoods; and an implementable action plan with the ability to track progress over time. In addition, the CWPP will serve as a source and a guide for accessing grant opportunities and funding aimed at reducing the risk of wildland fires.

As members of the Reno community, we recognize the variation in neighborhood types and built environment in the wildland-urban interface (WUI). The City's varied landscapes and topography create a unique wildland environment composed of mountains and foothills, with steep slopes and rolling terrain covered with a variety of fuel types. Many areas that have burned historically have subsequently been invaded by invasive grasses that amplify fire risk. In view of these distinct qualities, our approach will consist of quantitative geographic information system (GIS) analyses to evaluate the features of each distinct area and provide tailored recommendations aligned with the cohesive strategy themes. The milestones outlined in the Request for Proposal (RFP) require a proactive, reputable, experienced consultant like SWCA to complete the project accurately and on time. SWCA's goal is to provide the highest level of

¹ March 2024. Available at: <https://www.forestsandrangelands.gov/documents/resources/communities/cwpphandbook.pdf>.

service to our clients while adhering to a budget that reflects the level of service required. Anticipated hours and rates for key team members are included in the Proposal Cost Plan and Narrative.



SWCA facilitating a public workshop for a CWPP.

FIRM QUALIFICATIONS

FIRM OVERVIEW

SWCA is a 100% employee-owned company established in 1981 that specializes in providing comprehensive environmental planning, regulatory compliance, and natural and cultural resources management services to businesses and government clients across the United States. We work to understand the full life cycle of each project, from its early inception to completion. In the face of rapid environmental, economic, and societal changes, SWCA provides a comprehensive approach to these ever-changing challenges.

Since our founding along the Grand Canyon and Colorado River, SWCA has grown nationwide with two Nevada offices: Reno and Las Vegas. SWCA's in-house experts include project managers, fire planners, foresters, permitting specialists, National Environmental Policy Act (NEPA) planners, biologists, archaeologists, paleontologists, architectural historians, technical editors, and GIS specialists.

We focus on **Sound Science and Creative Solutions**, and with more than 1,600 employees spanning 43 offices throughout the United States and abroad, SWCA's local offices are small enough to take full ownership of the expectations of our clients and make them a top priority. At the same time, with a




100% Employee-Owned
Environmental Firm



43 Offices Globally



1,600+ Employees
including **40 Fire and Forestry Work Group**
Team Members

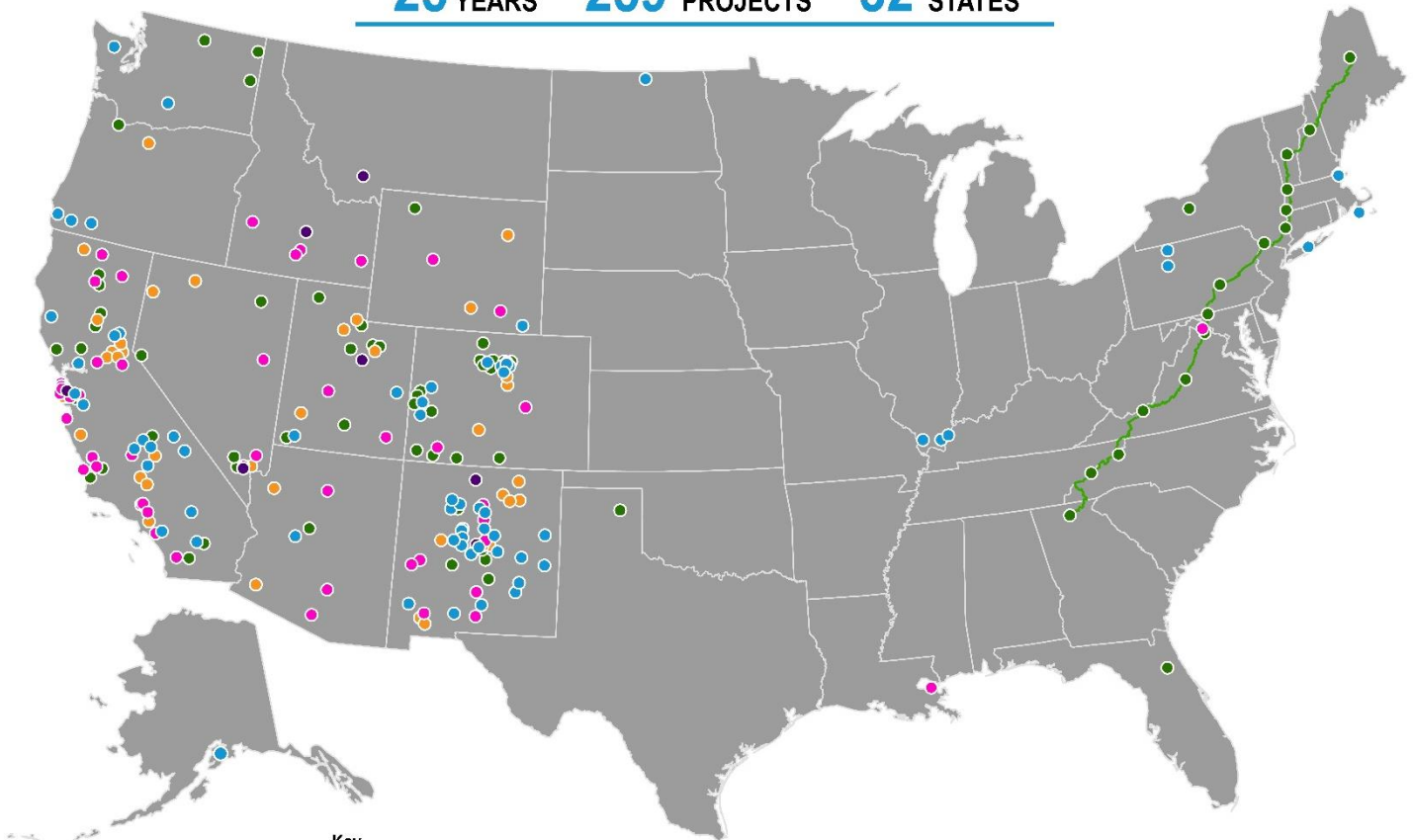
Fire and Forestry Work Group consisting of more than 40 members supporting our wildfire planning and recovery work, we are large enough to have the appropriate staff and technical resources for this project.

THE SWCA FIRE TEAM

SWCA has 25 years of wildfire planning experience preparing CWPPs, wildfire mitigation plans, fire management plans (FMPs), and post-fire recovery and restoration plans. SWCA's deliverables adhere to federal and state minimum wildfire planning and recovery standards. As shown in the graphic below, **we have completed wildfire work in 32 states throughout the United States, including 11 projects in Nevada.** Each project is highly customized based on location, ecology, and the specific needs of the community, agencies, and local stakeholders. With our team's extensive understanding of how fuel treatments are implemented on the ground, we develop CWPPs and FMPs that are targeted and implementable.



25 YEARS **259** PROJECTS **32** STATES



Key

● CWPP - Community Wildfire Protection Plan	● Post-Fire Planning	● Compliance
● Hazard Assessments/Fuels Planning	● Educational/Outreach	

Our staff include certified wildfire mitigation specialists, team members with Firewise Home Ignition Zone training, fire behavior analysts with experience developing and using fire behavior models and decision support tools, and red-carded staff with decades of operational wildfire experience. Our team provides high-quality services to assist communities in planning for and managing wildland fire hazards. We use GIS and GPS technology and federal fire hazard rating systems to assess local, mid-scale, and regional fire hazards, including WUI fire hazards. We have proven success in the use of fire behavior modeling to develop community risk and hazard assessments, including the use of several federally recognized programs, such as the Interagency Fuel Treatment Decision Support System (IFTDSS), BehavePlus, FARSITE, and FlamMap.

We use assessments, such as the National Fire Protection Association (NFPA) 1144 risk/hazard assessment, to accurately characterize on-the-ground conditions in neighborhoods and residential areas and ground-truth fire behavior model outputs. These assessments help guide recommendations and actions that homeowners can take to reduce structural ignitability.

“The team at SWCA helped Grant County to produce what we and all of our stakeholders feel is the best Community Wildfire Protection Plan. Vicky and the team were extremely thorough and made sure all stakeholders were involved and heard constantly throughout the process.”

— Michael Larisch, Grant County, New Mexico, Grant County CWPP 2020

SWCA has a proven record conducting in-person and virtual public information sessions and collecting feedback on a wide variety of projects. Our staff has used consensus-based collaborative planning for a variety of projects, including public meetings for CWPPs. Our team has convened Core Teams, which consist of key agencies and stakeholder groups, often with diverse and polarized interests, to participate in all CWPP planning processes. These actions have led to collaborative community action plans and implementation strategies that have been readily adopted by local governments.



KEY STAFF QUALIFICATIONS

Our team for this project is led by Project Manager (PM) **Jayden Peterson**, who brings 7 years of experience in forestry and wildfire planning, including work spanning seven states. Jayden will be supported by SWCA's team of forestry and fire subject matter experts, including **Victoria Amato**, Principal Fire Planner, who will serve as the primary technical advisor.



Jayden will lead all day-to-day tasks, including planning, budgeting, and logistics. He will oversee project implementation, contractor work, and homeowner relations, ensuring effective communication and successful execution of treatments.

Years of Experience | 7

Education | B.S., Forestry Resource Management, 2019

JAYDEN PETERSON, B.S. | PROJECT MANAGER

Jayden is a Senior Forest Ecologist in Nevada who helps develop all aspects of forestry and wildfire planning projects across the United States. Before joining SWCA, Jayden worked for government entities at the federal, state, and local level, such as the NDF, Forest Service, and Lake Travis Fire Rescue. During his time with the NDF, he worked on several fuels reduction projects in Nevada, including federally funded grant projects. In addition to this work, he has collaborated with multiple agencies and landowners; initiated, managed, and secured funding for natural resources projects; and assisted multiple national forests with their natural resource needs. Jayden has successfully overseen and provided guidance and training for many projects, including fuels reduction, timber/fire salvage, prescribed fire, and fire suppression. Jayden is a Society of American Foresters Candidate Certified Forester and is the only forester in the state of Nevada with that designation. Jayden has managed a variety of contractors on the ground to implement fuel treatments, completed home inspections, and worked with homeowners to ensure that treatments are executed effectively with sensitivity to homeowner needs. Jayden's experience working across the western United States has given him a breadth of knowledge in natural resource issues across a variety of ecosystems. He specializes in project management, stakeholder coordination, and collaboration across property boundaries and jurisdictions.



Paris will support day-to-day project tasks, including planning, budgeting, and logistics. She will lead field data collection and support public outreach and engagement, ensuring effective communication and coordination throughout the project.

Years of Experience | 6

Education | M.S., Biology, 2021

PARIS KRAUSE, M.S. | ASSISTANT PROJECT MANAGER

Paris Krause is an Ecologist with over 6 years of experience as a professional biologist and ecologist, where she serves as both a field biologist and technical report writer. Paris lives and works in Reno. She recently acted as Assistant Project Manager (APM) to assist the Truckee Fire Protection District with their 2024 CWPP update. Her professional background includes leading field data collection and data processing efforts for fire and forest ecology surveys via remote light detection and ranging (LiDAR) sensing and traditional forestry survey methods. Additionally, she was the field crew lead for pre- and post-fire forest health and ecology surveys for vegetation and fuel structure characterization for the Forest Service in forested and chaparral ecosystems of the Cleveland, San Bernardino, Angeles, and Los Padres National Forests. Paris also has experience assisting California Department of Forestry and Fire Protection (CAL FIRE) Incidents with GIS map production on the Monument Fire (2021) and Oak Fire (2022).



Victoria will provide senior leadership and technical expertise overseeing CWPP risk assessments and will facilitate stakeholder meetings to ensure technical accuracy and effective collaboration.

Years of Experience | 19

Education | M.S., Forestry, Fire Ecology/Habitat Management, 2006

VICTORIA AMATO, M.S. | FIRE AND FUELS TECHNICAL ADVISOR

Victoria Amato will serve as the fire subject matter expert. She is a Principal Fire Planner who has worked with SWCA on fire plans for 18 years. At SWCA, she has developed more than 80 CWPPs and FMPs for clients in 26 states. Victoria has extensive experience working with public and private stakeholders, having facilitated multiple outreach meetings, sometimes in controversial settings. *She has extensive experience in the development of CWPP risk assessments using fire behavior modeling programs and on-the-ground WUI assessments.* She also routinely works with a variety of land management agencies across the United States, including the BLM, Forest Service, U.S. Fish and Wildlife Service, Bureau of Reclamation, Bureau of Indian Affairs, and National Park Service, studying fuels reduction treatments, forest stand structure, fire behavior, remote sensing classification, and monitoring of burned areas. She has supported numerous projects across the country, serving as the fire and fuels resource specialist and interfacing and collaborating with agency counterparts.



Lia will lead the development of the CWPP document, coordinating with various agencies and stakeholders, ensuring the plan meets the City's needs and objectives.

Years of Experience | 22

Education | B.S., Environmental Science, 2002

LIA WEBB, B.S. | SENIOR AUTHOR

Lia Webb has over 20 years of experience as an environmental scientist and landscape ecologist, working with private, non-profit, and government clients in California, Oregon, Nevada, and Illinois, as well as internationally. She lives in the Eastern Sierra and supports SWCA's Great Basin and West Coast operations with her expertise in public engagement, scientific approaches to alternatives development, prioritization, decision-making, and grant funding. Lia has led and managed complex projects related to restoration, sensitive habitats and species, forestry, trails and recreation, transportation and infrastructure, and climate change. Lia has been part of the One Truckee River WaterSMART Cooperative Watershed Management Program, where she led the development of a vegetation management and restoration plan and completed a conditions assessment of the Truckee River, engaging stakeholders and securing grant funding. Additionally, Lia worked on the Inyo County CWPP Update, collaborating with various agencies to identify high wildfire risk areas and hazard reduction priorities.



Sophie will facilitate public meetings, stakeholder engagement and develop and implement outreach strategies to gather community input and ensure broad support for the CWPP.

Years of Experience | 4

Education | B.S., Environmental Science, Enviro Systems and Society, 2018

SOPHIE BUTLER, B.S. | PUBLIC INVOLVEMENT SPECIALIST

Sophie Butler is an Environmental Planner and Project Manager with 4 years of experience facilitating public involvement across a variety of planning and restoration projects in Nevada. Part of the Reno team, Sophie's public outreach and meeting facilitation have focused on riparian restoration planning within the cities of Reno and Sparks and Washoe County and support for the BLM with public outreach for proposed developments on public land undergoing the NEPA review process. With broad knowledge and strong public speaking skills, Sophie competently explains the technical aspects of a diverse set of projects with a wide range of interested groups and stakeholders. She routinely works with a variety of federal, state, and local agencies, including the BLM, Forest Service, NDF, Nevada Division of Environmental Protection, Nevada Department of

Agriculture, and various departments within the City of Reno and Washoe County.



Mandy will provide stakeholder engagement oversight and oversee the development of practical solutions for local natural resource challenges, ensuring effective communication and collaboration.

Years of Experience | 20

Education | Ph.D., Geoscience, Soil Science, 2011

MANDY BENGTSON, Ph.D. | PUBLIC INVOLVEMENT PRINCIPAL

As a trained meeting facilitator and the PM for One Truckee River's programmatic vegetation management planning effort, Dr. Bengtson works closely with diverse stakeholders to develop practical solutions and plans to address natural resource challenges. A Reno resident, she has been actively engaged in local conservation efforts for the past 6 years and has been working in Nevada natural resources since 2007. She has expertise in reclamation and habitat restoration of disturbed ecosystems, characterization and mapping of soils and geomorphology, ecology, biogeochemistry, GIS, biostatistics, restoration and revegetation monitoring, study and research design, habitat niche modeling, and multivariate statistics. Her background in soil science, applied ecology, and statistics has contributed to the publication of several land management reports and 16 peer-reviewed scientific publications. In addition, she and her colleagues have developed novel conceptual models and interpretations to support conservation of soils and native vegetation, as well as the restoration, reclamation, and management of arid and semi-arid ecosystems.



Liz will complete GIS and mapping tasks, developing spatial products to support the CWPP and conduct fire behavior modeling and risk assessments, ensuring accurate integration of geospatial data.

Years of Experience | 7

Education | M.A. Geo, Geographical Information Science, 2019

LIZ HITZFELDER, M.A.GEO. | LEAD GEOSPATIAL SCIENTIST

Liz Hitzfelder is the Lead Geospatial Scientist for the Fire and Forestry workgroup. She earned a Master of Applied Geography degree with a focus in GIS. During graduate school, she specialized in the application of remote sensing to assess vegetation differencing for geomorphic changes. She is proficient in ArcGIS, ArcPro, ArcGIS Online, Python, and other geospatial applications. She has experience in producing story maps that include interactive maps and applications for large-scale community plans. Liz has provided GIS services on projects across the country, including developing story maps for projects in Colorado, California, New Mexico, Massachusetts, Utah, and Alaska.

Liz has spent 5 of her 7 years of experience as a GIS specialist working primarily in fire planning and modeling. She is a fire behavior modeling expert and lead GIS specialist in support of CWPPs and other wildfire-related projects. She has substantial experience producing story maps and hub sites that integrate interactive maps and applications for large-scale CWPPs. Additionally, she has expertise in custom Survey123 form and report generation and experience working with custom risk assessment platforms such as various State Wildfire Risk Assessment Portals and IFTDSS.

PROJECT HIGHLIGHTS

SWCA stands by our work—the satisfaction of our clients defines our success. As evidenced by our 85% repeat customer base, we consistently meet goals related to schedule maintenance, cost control, and quality of work. In the span of 5 years, SWCA has delivered over 80 CWPPs and FMPs throughout the United States. The three featured projects below include the following services outlined in this solicitation's scope of work.

- Stakeholder Engagement and Public Involvement
- Collaboration with Multiple Agencies
- Development of Comprehensive Plans
- Use of GIS and Mapping Tools
- Technical Expertise in Vegetation Management and Restoration
- Regulatory Compliance and Documentation
- Project Planning and Implementation



“For SWCA, success is founded on building relationships that aims to catapult project tasks well beyond the anticipated outcomes. Their business model and values were evident from the initial proposal through project completion. On behalf of the core team, the Kenai Peninsula Borough of Alaska greatly appreciates the final 2022 Community Wildfire Projection Plan, which represents all lands all hands of a borough that is bigger than the state of Maryland.”

— Brenda Ahlberg, Kenai Peninsula Borough
Emergency Manager

TRUCKEE FIRE PROTECTION DISTRICT COMMUNITY WILDFIRE PROTECTION PLAN

The Truckee Fire Protection District (the District) contracted SWCA to prepare a unique CWPP for the approximately 125 square miles encompassing the District. The purpose for the CWPP was to serve as a framework to identify and prioritize all future wildfire hazard protection projects and foster a community-wide collaborative approach to reduce wildfire risk and hazards to life, property, and natural resources within the District. The CWPP process incorporated other programs and engaged other agencies currently working with the District on interconnected work. The project identified and prioritized the use of Measure T funds to conduct fuels reduction projects, implement defensible space measures, and increase wildfire preparedness and response for the region. SWCA provided interactive, public-interfacing tools, such as an online story map and project hub site, to promote accessibility and regular updating of the CWPP, as well as facilitating in-person and virtual public meetings and preparing community surveys. The update includes collaboration with other firms leading the way in landscape-scale modeling and planning for fuels management and community preparedness.



See Story Map at:

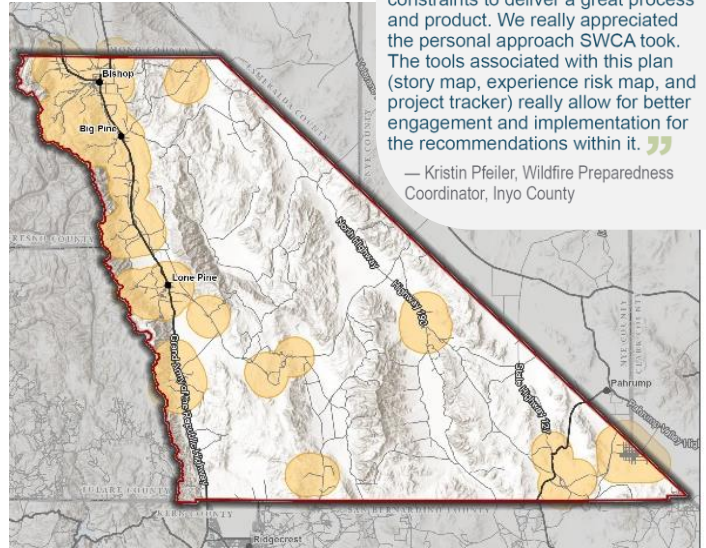
<https://storymaps.arcgis.com/stories/db5f483509f64ddb8092f4081be7ffc>

INYO COUNTY COMMUNITY WILDFIRE PROTECTION PLAN

After successfully completing two community-scale CWPPs in Inyo County, SWCA was contracted by the County of Inyo to develop a comprehensive countywide CWPP that crossed multiple jurisdictions, including tribal, federal, state, and private lands. The purpose of the CWPP was to provide an active living document, online tool, and interactive webmap for stakeholders and those living in Inyo County with an overview of wildland fire risks, hazards, and values within the County; recommend actions (which are guided by extensive scientific data analysis) to reduce the risk of catastrophic wildfire to communities; and develop an Action Plan with roles and responsibilities to ensure that actions and milestones are addressed within established timelines to address risks and hazards. Our team has worked closely with the Tribes, Inyo County Office of Emergency Services, Fire Safe Councils, local fire authorities, CAL FIRE, water and power utilities, BLM, Forest Service, California Department of Fish and Wildlife, and National Park Service to develop a comprehensive CWPP that identifies high wildfire risk areas, WUI communities, hazard reduction priorities and projects, and high-value assets in need of protection from wildfires, among other objectives. The plan included extensive local community engagement to ensure broad public and stakeholder support, provide user-friendly online tools and webmap, and engage the community in potential implementation.

“SWCA did an amazing job working with a range of people and constraints to deliver a great process and product. We really appreciated the personal approach SWCA took. The tools associated with this plan (story map, experience risk map, and project tracker) really allow for better engagement and implementation for the recommendations within it.”

— Kristin Pfeiler, Wildfire Preparedness Coordinator, Inyo County



See Story Map at:

<https://storymaps.arcgis.com/stories/4f9a0c13271946c2902023be680fff3f>

Visit the CWPP Project Hub:

<https://inyo-county-cwpp-inyocounty.hub.arcgis.com/>

ONE TRUCKEE RIVER VEGETATION MANAGEMENT AND RESTORATION PLANNING

SWCA has been supporting One Truckee River and partner organization Nevada Land Trust since 2019 to expand their partnership, advance goals for sustainable vegetation management along the Truckee River, and prioritize vegetation management projects. This planning project addresses the needs and challenges of multiple entities that manage the Truckee River in the Reno-Sparks urban core. SWCA led the Phase I efforts to collaboratively develop a Framework Vegetation Management and Restoration Plan. SWCA led a series of Technical Working Group (TWG) meetings that engaged relevant stakeholders to identify regulatory constraints and goals and objectives for vegetation management planning to support the Framework Plan. Phase II of the project addresses the following: 1) synthesizing Truckee River new and existing data to guide multi-jurisdictional riparian vegetation management, and 2) collaboratively prioritizing vegetation management projects and build momentum for site-specific implementation planning. This effort includes coordination with stakeholders to



collaboratively develop restoration priorities that meet the unique needs of individual agencies. A key factor in the project success was SWCA's tailored approach to stakeholder and TWG engagement. SWCA received accolades from the client and local agencies on the efficacy of meetings and the Phase I final deliverables. The project was completed on time and on budget. Furthermore, SWCA supported One Truckee River's grant-writing efforts to successfully obtain funding for both phases of the project, demonstrating SWCA's commitment to One Truckee River's mission and effectiveness in project concept development and project execution.

NONDISCRIMINATION. In connection with the performance of work under this Contract, the Contractor shall not discriminate against any employee or applicant for employment because of age, race, creed, religion, color, veteran status, sex, sexual orientation (means having or being perceived as having an orientation for heterosexuality, homosexuality, or bi-sexuality), gender identity or gender expression (means a gender-related identity, appearance, expression, or behavior of a person regardless of the person's assigned sex at birth), physical condition, disability, national origin, or any other protected class status applicable under federal, state or local law, rule or regulation. Race includes traits associated with race, including, without limitation, hair texture and protective hairstyles.

Pursuant to NRS §332.065, this RFP requires that a written certification be included certifying that the proposing company is not currently engaged in and agrees for the duration of any contract entered into with the City of Reno to not engage in, a boycott of Israel. Accordingly, the [proposing/bidding] company hereby certifies they are not currently engaged in and agree not to engage in for the duration of this contract entered into with the City of Reno, a boycott of Israel. X Yes No

Matt Villaneva, Natural Resources Director

Printed Name & Position



Signature



View of the Davis Fire from Southbound U.S. 395, September 2024

PROJECT APPROACH AND COST ESTIMATE

The following approach and cost estimate detail the tasks and cost summary for the proposed scope of work. The budget was prepared based on our previous experience with developing CWPPs for communities across the country, knowledge of this specific City project, and consultation with our technical experts. We understand that the contract will be on a time-and-materials, not-to-exceed basis. SWCA will not proceed with any out-of-scope or optional tasks we have provided without written direction from the Reno Fire Department (RFD). We have been conservative in preparing the budget regarding the level of effort required so that the overall cost estimates are reasonable for our understanding of the City's planning purposes and needs; therefore, we have recommended and budgeted for a mix of in-person and virtual meetings to encourage the highest attendance and promote cost-saving options.

SCOPE OF WORK

Our team has 25 years of fire planning of experience, including CWPP development. At the outset of all CWPP projects, we work closely with our clients to understand the nuances of their project and adapt our approach to suit their needs. The following tasks represent our suggested approach to developing a comprehensive CWPP for the City that will meet all requirements set forth by the Healthy Forests Restoration Act and deliver a plan that can be used by the City to successfully apply for funding to implement meaningful actions to reduce wildfire risk. Optional tasks are included at the end of this section for your review and discussion. **We encourage dialogue between the City and our team before final contracting to ensure that our proposed approach meets your needs.**

TASK 1: REVIEW EXISTING INFORMATION

SWCA will work collaboratively with the Core Team and other community representatives to gather, review, and analyze existing GIS data, policies, and management documents to understand the City's fire history, identify data gaps, and ensure alignment with existing plans. This information will include the review of individual community-level CWPPs that will fall under the umbrella of the City's plan. Other plans gathered will include the City's current CWPP, Washoe County Hazard Mitigation Plan, Reno's Master Plan, the City of Reno Parks, Recreation, and Open Space Master Plan, and relevant environmental guidelines. SWCA will consolidate this information as a basis for the CWPP document and specifically to identify and summarize existing City values, as a foundation for fire protection resources and existing treatments, and as background analysis of the region, including fire history, ecology, fuels, and climate. Consultations with RFD personnel, community representatives, and key stakeholder representatives are included in this initial data-gathering effort and will be supported through Task 3 efforts.

Task 1 Assumptions	<ul style="list-style-type: none">Time frames and deadlines are dependent on the timely transfer of documents, data, and GIS files. SWCA assumes that all requests will be filled by the City within 3 weeks of the initial request. Data received outside this time frame may trigger budget and/or schedule changes.
Task 1 Deliverables	<ul style="list-style-type: none">SharePoint folder with uploaded data sources to for information sharing and to garner feedback on data gaps.

TASK 2: CONDUCT HAZARD AND RISK ANALYSIS

Our team will create a custom quantitative wildfire risk assessment tool using baseline fuels data (the 40 Scott and Burgan Fire Behavior Fuel Model) from the most recent national LANDFIRE database. Using this approach, accurate assessment of potential fire behavior will be accomplished using fire behavior models housed within IFTDSS (e.g., BehavePlus, FARSITE, and FlamMap) that help determine the magnitude of fire behavior parameters—flame length, rate of spread, fireline intensity, landscape burn probability, ember exposure, and crown fire potential—across landscapes. Our risk assessment will include an analysis of the fuels within the project area as well as a fire behavior model derived from a combination of these existing data sets to further spatially delineate wildfire risk. Before the model results are finalized, outputs will be calibrated and ground-truthed by SWCA and reviewed through discussions with the Core Team to ensure that results account for local fuels, topography, and fire history conditions.

Assess Fire History and Ignition Risk

SWCA will provide a detailed analysis of the area's fire history and assess future ignition risk. This will include a discussion of the City's historic fire regime, which will be supplementally informed by broader fire regimes of surrounding ecosystems. SWCA will also use the IFTDSS burn probability function to determine the potential for ignition and wildfire spread across City lands. Parameters such as location, topography, ignition source, size, fuel, and severity of past wildfires will be incorporated into our analysis, and our modeling procedure will produce a composite wildfire assessment that rates land as having a high, medium, or low risk of wildfire. The assessment will be used to prioritize areas for treatment recommendations.

Identify Homes, Businesses, and Essential Infrastructure at Risk

SWCA will further examine infrastructure by completing an on-the-ground assessment with the 2013 National Fire Protection Association *1144 Standards for Reducing Structure Ignition Hazards from Wildland Fire* or similar protocol, as directed by the Core Team. The assessment will evaluate various factors related to wildfire risk in structural environments, including construction materials, defensible space, fuels, proximity to organized fire response, ingress and egress routes, and topography. Our team will use a digital form and web application using Survey123 and Esri Field Maps to survey, capture, and document wildfire hazards across the decided-upon study areas (e.g., a subsampling of key neighborhoods and structures). All field data will be shared with the City upon completion of the project. Areas with adequate and inadequate defensible space will be identified.

Assess Firefighting Preparedness

SWCA will assess the adequacy of firefighting resources, equipment, and infrastructure, and identify and address gaps to enhance wildfire response capabilities. As part of this process, SWCA will create and distribute a survey for fire personnel to complete. We will evaluate the location of firefighting equipment and personnel, ingress and egress concerns, and water availability for fire suppression needs to assess which areas are particularly vulnerable and provide solutions and priorities for action.

As part of the hazard and risk analysis, a series of spatial maps (fire response atlas) can be created to assist with strategic response decisions. Included in this series could be wildfire hazard potential, suppression difficulty index, and potential operational delineations, as available. The data provided above by local fire departments and ingress and egress data provided by emergency management could be incorporated. We can also evaluate other nationally and locally available spatial data as desired by the Core Team.

Task 2 Assumptions	<ul style="list-style-type: none"> Time frames and deadlines are dependent on the timely transfer of data and GIS files. SWCA assumes that all data requests will be filled by the City within 3 weeks of the initial request. Data received outside this time frame may trigger budget and/or schedule changes. On-the-ground structural defensibility analyses will be conducted at the discretion and direction of City of Reno in 5 field days for up to two staff (or equivalent), weather dependent. SWCA will have unimpeded site access to evaluate the project area(s). No major changes requiring additional data collection, analysis, or reanalysis will be needed after the community hazard and risk assessment has been completed.
Task 2 Deliverables	<ul style="list-style-type: none"> Appendix to support the CWPP that will detail findings of the city-wide hazard assessments, list of priority treatment areas, wildfire scenarios, and behavior analysis as PDF maps. Final geodatabase with all data and maps will be delivered at the end of the project, along with responses to surveys.

TASK 3: STAKEHOLDER OUTREACH AND PUBLIC ENGAGEMENT

TASK 3A. ENGAGE INTERESTED PARTIES AND FORM A CORE TEAM

Within 2 weeks of receiving Notice to Proceed (NTP), our team will convene an initial kick-off conference call (virtual) with City representatives to discuss key topics of the project, such as identifying the CWPP goals and objectives, establishing communication protocols, determining the initial project scheduling and deliverables, and identifying preliminary data needs to facilitate the planning process. During the call, we will work with the City to identify additional Core Team members. The Core Team will represent important agencies and stakeholder groups with an interest in wildfire prevention. These stakeholders are likely to include representatives from the City, Washoe County Emergency Management, NDF, Nevada Division of Emergency Management, Truckee River Flood Management Authority, University of Nevada–Reno, Truckee Meadows Water Authority, NV Energy, Humboldt-Toiyabe National Forest, local Tribe(s), BLM, and other local fire authorities. The Core Team will eventually be responsible for reviewing fire behavior modeling results, developing recommendations for fire mitigation and risk reduction, and providing expert knowledge regarding fire risk and hazard within the city of Reno and the WUI.

Project Manager Jayden Peterson will work in collaboration with the City to engage the Core Team in the planning process. Jayden will serve as the main point of contact and will facilitate the process throughout. SWCA will provide meeting minutes and action items to all participants within 5 business days of each Core Team meeting.

TASK 3B. HOST CORE TEAM WORKSHOPS

Core Team Meetings

SWCA will conduct Core Team meetings, which will begin within the first month after receiving NTP, using virtual platforms to accomplish the highest attendance, provide the most flexibility in schedules, and reduce costs. SWCA has budgeted to be on-site within the city of Reno to carry out on-the-ground hazard assessments and public outreach during the summer of 2025. If preferred by the City, SWCA will convene the second Core Team meeting in person to align with the SWCA team's mobilization. In our experience, the first and last Core Team meetings can be held virtually and still be highly effective using tools we have developed in the Zoom platform. The second Core Team meeting is best held in person to provide interaction with map products and facilitate more collaborative planning by stakeholders. Our team is completely open to discussion with the City regarding meeting formats and schedule; we propose this current approach, as it has proven to be a very efficient and effective way to approach the planning process and aid in limiting travel costs while resulting in the same high-quality product. However, we remain flexible to meet City needs.

Our team will facilitate up to three formal Core Team meetings lasting approximately 2 to 4 hours each. During the first Core Team meeting, our team will facilitate an overview of the CWPP process, identify and establish Core Team expectations, identify goals and objectives of the CWPP, review the previous CWPP, discuss the project scope and schedule, and begin to document and discuss community hazards to include with the findings associated with on-site NFPA 1144 assessments and the risk assessment. The second meeting will be convened to collaboratively review the WUI, develop base maps, and develop risk reduction recommendations. The third meeting will be convened so that all parties can review and provide input on the draft CWPP deliverables.

Our team will facilitate all Core Team meetings to guide the planning process and build consensus among members. We have identified locally based SWCA team members Sophie Butler and Paris Krause to facilitate meetings with the Core Team and the public. Dr. Bengtson will oversee development of Core Team and public engagement meeting efforts. As a trained meeting facilitator and Project Manager for the One Truckee River Vegetation Management Planning effort, Dr. Bengtson and her team have led engaging working group meetings and will apply lessons learned from those local projects to ensure all CWPP meetings are effective and productive. We will develop agendas for Core Team meetings that outline each component of the CWPP and clearly identify action items. A record of minutes will be made of all Core Team meetings and will be distributed to all participants within 5 business days of each meeting.

Monthly Core Team Check-ins

In addition to the three formal Core Team meetings noted above, SWCA will host shorter monthly team meeting check-ins with a smaller group of selected Core Team members to update the Core Team on project progress and discuss remaining project needs. These meetings will last 30 minutes each and will occur virtually.

Task 3A & 3B Assumptions

- The virtual kick-off call will be attended by up to three SWCA staff members.
- There will be one in-person meeting and two virtual Core Team meetings.
- Meetings will last 2 to 4 hours. Core Team meeting No. 2 will be 4 hours long, unless budget allows and project needs align with a meeting 4 to 6 hours long.
- There will be one virtual project team check-in meeting per month lasting 30 minutes each.
- WUI delineations and the CWPP landscape will not change after they have been approved by TFD and the Core Team.
- **SWCA will assist in assembling the Core Team, but the City will be responsible for direct recruitment of the Core Team members.**

**Task 3A & 3B
Deliverables**

- Meeting minutes, agendas, and action item tables for Core Team Meetings.
- Core Team list.

Task 3C. Host Community Workshops and Conduct Public Outreach

SWCA will work with the City to design and facilitate a public outreach process to ensure early and continued resident engagement and to incorporate feedback into planning in a timely manner. SWCA will develop project information, marketing, and outreach materials to engage the community and stakeholders and to promote public awareness of the project. These materials include an online public survey, project flyer PDF, draft posts and announcements for use in print (e.g., mailers, press release, doorhangers), on social media (e.g., Facebook, Twitter), or on agency websites. SWCA will write a script for a radio interview.

Through this process, we wish to assess residents' perceptions of wildfire risk, identify tools they need to reduce that risk, and gather feedback on the proposed projects. For previous projects, SWCA has found that establishing a project website or project story map (Optional Task 6) with an embedded public survey helps increase engagement. These options allow community members who are not able to attend the public meetings to review project information, provide comments, and ask questions.

SWCA will conduct one in-person community workshop, designed with a format to maximize public and stakeholder engagement and, if possible, align with a well-attended local event that attracts a cross-section of the public. Meeting materials (e.g., handouts, flyers, surveys, posters, slideshows, etc.) will be provided by SWCA. This workshop will focus on announcing the process of the CWPP update, presenting the update process, and gathering feedback on perceived wildfire hazards, risk, and desired mitigation strategies. The workshop can be set up with various stations aligned with the goals of the national cohesive strategy for an exploration of wildfire hazards and risk as well as mitigation strategies.

SWCA has budgeted to be on-site within the city of Reno to carry out on-the-ground hazard assessments and the second Core Team meeting during the spring and summer of 2025. If preferred by the City, SWCA will convene the community workshop in person to align with the SWCA team's mobilization. The City will be responsible for identifying and securing event spaces and providing refreshments if desired.

SWCA will host a **virtual public meeting to present the draft plan** before public review and to announce when the final plan will be available. This will be held at a convenient time (e.g., after working hours) to maximize attendance. During the meeting, tools for homeowners and renters looking to reduce risks can also be briefly covered to encourage attendee action. SWCA will develop the agenda, establish the virtual login link, and develop the PowerPoint presentation, maps, and interactive content to engage community members in discussions around wildfire planning. SWCA will also assemble a panel of experts (up to five experts) from the Core Team for questions and answers.

**Task 3C
Assumptions**

- There will be one in-person community workshop lasting 2 hours.
- There will be one virtual public meeting to present the draft plan for up to 1 hour.
- SWCA will create up to four social media posts. SWCA will create content and the Core Team (and public information officers as applicable) will be responsible for the distribution of content on existing accounts.
- SWCA will conduct up to one radio interview.

Task 3C Deliverables

- SWCA will provide the project flyer for distribution, social media text, language for up to two press releases, radio interview script, workshop handouts and brief presentation if desired, public survey and results (end of project), and facilitated public review period.

TASK 4: MAPPING AND GIS

Gather and Analyze Data

SWCA will work with the Core Team to gather and compile relevant data for the CWPP. Our team will work with the CWPP Core Team to review all gathered relevant data and information to understand existing baseline conditions throughout the project area and WUI and identify data gaps. SWCA will use a combination of Esri software and Microsoft Office Suite applications to compile and organize data to ensure that the City can edit all data sets and products. If the City has specific recommendations for additional tools, those will be incorporated into our data gathering process. To facilitate easy file transfers, SWCA will establish a project SharePoint site or use the City's preferred document sharing software to share research data, the initial draft CWPP outline, and other requested project components with the Core Team. All datasets will be available on an Esri web map for the Core Team to view; a final geodatabase will be delivered at the end of the project.

Create Community Base Maps

Working collaboratively with the Core Team, SWCA will establish community base maps for the CWPP. The maps will present information that includes high wildfire risk areas, inhabited areas at elevated fire risk, high-value assets in need of protection from wildfires, land ownership boundaries, community WUI areas at risk, unincorporated areas at risk, ingress and egress routes, fire history and previous fuel treatments, highly valued resources and assets, critical infrastructure (roads, emergency response facilities, water supply, schools, communication towers, airports, power lines, etc.), fire history, previous fuels treatments, and the locations of major water sources and suppression resources. SWCA will work with the Core Team to delineate a WUI map that will be accompanied by a description and narrative of communities at risk. During the process of developing priorities and recommendations (see Task 5A below), a map of priority fuel treatment areas will be collaboratively created and delivered as part of the final CWPP.

Task 4 Assumptions	<ul style="list-style-type: none">● Time frames and deadlines are dependent on the timely transfer of documents, data, and GIS files. SWCA assumes that all requests will be filled by the City within 3 weeks of the initial request. Data received outside this time frame may trigger budget and/or schedule changes.● Data provided to SWCA during the project will not change once they are received. In the event of a fire occurring during the project period, SWCA and the City will consult and agree upon any necessary changes to the deliverables, scope, and budget, as needed. If changes to the deliverables as a result of the fire are necessary and desired, a scope and budget for the work will be prepared by SWCA at that time.● WUI delineations and the CWPP landscape will not change after they have been approved by the City and the Core Team.
Task 4 Deliverables	<ul style="list-style-type: none">● Community base maps.

TASK 5: PREPARE THE COMMUNITY WILDFIRE PROTECTION PLAN

TASK 5A: DEVELOP THE COMMUNITY WILDFIRE PROTECTION PLAN DRAFT

En route to preparing a comprehensive draft CWPP, SWCA will provide the Core Team with a draft outline of the CWPP for one round of revisions. While drafting the outline, SWCA will review existing fire and hazard planning information (see Task 1) to align the CWPP update with other local efforts. Based on that approved outline, the SWCA team will draft the CWPP for review by the Core Team in accordance with the project schedule. The CWPP will include an overview and introduction to the project and the City (values at risk, wildfire protection and response, land use throughout the project area, etc.), the fire setting (ecology, climate, fire history, etc.), the methods and results of the risk assessment, and the recommendations and action plan for risk reduction as well as monitoring and maintenance suggestions and several appendices with pertinent information.

The draft CWPP will be submitted electronically to the Core Team using SWCA's SharePoint site for review and comment by Core Team members. SWCA will facilitate a Core Team meeting (Core Team Meeting 3) to review the draft CWPP and discuss comments and feedback. The public will be invited to provide written comments on the draft document during a public review period; SWCA can facilitate this process, providing various avenues for gathering public comments.

Following draft review, SWCA will incorporate appropriate feedback into the final CWPP. Following revisions, SWCA will then deliver a final electronic CWPP to the City. We will also deliver all GIS files used to create maps, formatted for use in the Esri software suite.

TASK 5B. DEVELOP PRIORITIES, RECOMMENDATIONS, AND ACTION PLAN

Development of Priorities and Recommendations

Throughout the project and during the second Core Team meeting, SWCA and the Core Team will engage in collaborative discussions around the modeled risk analysis and NFPA 1144 on-the-ground assessment data to delineate potential landscape-scale fuel treatment areas and communities/essential infrastructure in need of protection. SWCA firmly believes in responding to identified risks with the development of prioritized, achievable, actionable, and realistic wildfire prevention measures that can be acted on by all City community members to prevent devastating local wildfires. Therefore, our conversations will culminate in the production of an action plan, the heart of which will be a breakdown of fire mitigation solutions and the stakeholders who are responsible for implementing them. Prior to drafting the recommendations, SWCA will review and assess existing mitigation measures in the planning area and use those as a starting point for Core Team conversations.

The plan will also provide strategies for increasing community wildfire preparedness engagement by involving neighbors, homeowner associations, and the public, as well as expected timelines and costs for task completion, task priority, methodologies and theories behind approaches, and contact information for useful resources. SWCA will work closely with the Core Team to build into the plan appropriate funding sources for each recommendation such as state and federal grants, an example being the Building Resilient Infrastructure and Communities grant available through the Federal Emergency Management Agency.

To facilitate the CWPP's integration with national fire policy and funding sources, the action plan will align recommended mitigation tasks with the following three main goals of the National Cohesive Wildland Fire Management Strategy:

- **Resilient Landscapes:** The action plan will focus on recommendations for hazardous fuels reduction actions to reduce landscape-scale wildfire threats. Recommendations will include priorities, types, and methods of treatment on public and private land to protect forests, communities, and infrastructure (see Task 2 below).
- **Fire-Adapted Communities:** The action plan will focus on recommendations for actions to prevent structural ignitability (e.g., defensible space) and provide public education and outreach. This could include recommendations on wildfire mitigation policies and standards, protecting highly valued resources and assets, and fostering strategic coordination.
- **Safe and Effective Wildfire Response:** The action plan will focus on recommendations that address firefighting capability and wildfire readiness in all communities, including possibilities for improving emergency egress, response access, and emergency evacuation systems.

Fuel Reduction and Vegetation Management

Using the risk-hazard assessment, Core Team input, and data gathering, SWCA will lead the team through a process to develop strategies for fuel reduction and vegetation management, which will include identifying manual and

mechanical fuels treatment projects. SWCA will also identify potential partnerships with landowners and environmental organizations to mitigate hazardous fuel loads and create defensible spaces around homes and critical infrastructure.

Mapped treatment locations will be prioritized based on the wildfire risk to people, property, and essential infrastructure, pre-existing ingress and egress routes, and existing fuel conditions and historic fire and weather patterns. Recommendations for wildfire mitigation will not only be based on existing conditions but will also address potential future conditions related to climate change and by incorporating input from the Core Team and additional local agency specialists, as necessary. Various hazardous fuels treatment methods, such as manual and mechanical removal, prescribed fire, and herbivory control, will be discussed based on their effectiveness for each vegetation type and for each land ownership in the WUI. An important component when determining fuel treatment procedures is the incorporation of current mitigation practices that are already being implemented on federal, state, and private land; therefore, a conversation around ongoing treatments will be initiated to be sure that recommendations align with these activities.

Maintenance and Monitoring

The CWPP will include information on project monitoring, which will assist local land managers in determining the effectiveness of the CWPP update and implemented projects. Monitoring protocols, including monitoring schedules, will be outlined for various project types, from fuels projects to public outreach and engagement. The monitoring plan will help identify triggers for CWPP updates and will complement the CWPP update process by informing the Development Team of successes and failures, as well as any barriers to successful mitigation that need to be overcome.

Task 5 Assumptions	<ul style="list-style-type: none">● No major changes will be requested to the format or content of the CWPP after the initial outline has been approved by the Core Team. Major changes to the format or content after Core Team outline review has been completed may require additional funds and extend the timeline for final deliverables.● The City is responsible for gathering all required signatories for the CWPP.● SWCA assumes that there will be no more than 100 public comments on the draft plan. If more comments are received, budget and schedule changes may be needed.
Task 5 Deliverables	<ul style="list-style-type: none">● Recommendation matrices.● Initiate public review 7 to 8 months from NTP.● Revise 10 months from NTP.

TASK 6. PROJECT MANAGEMENT, ADMINISTRATION, AND SAFETY

Under this task, SWCA includes all project management, administration, and field safety for the duration of the project. SWCA will work with the City to guide the planning process and build consensus among team members. We will develop agendas for meetings, communicate any issues, clearly identify action items, and ensure the CWPP is delivered within schedule and budget. Project Manager Jayden Peterson will act as point of contact for the City and the Development Team. Our team stresses regular communication (email, calls) with the City between meetings to anticipate and thus avoid any potential setbacks or issues.

OPTIONAL TASKS

Based on previous CWPP projects, SWCA provides the following optional tasks and tools which we recommend for user-friendly application of CWPP and milestone tracking.

OPTIONAL TASK 7: HUB SITE AND PROJECT TRACKING TOOL

SWCA has been promoting hub sites for CWPPs for many of our clients around the country. As an **optional task**, our team could develop a hub site (similar to a website) that will create a highly functional, easy-to-use interface to tell the story of place and people's values in a way that illustrates data-rich, science-based information. The hub site forms the landing page for the project and provides links to the story map and other important content (e.g., public meeting announcements and the community survey). An example of a hub site SWCA created for Santa Clara County CWPP can be found here: <https://santa-clara-cwpp-sccfc.hub.arcgis.com/>.

The hub site can be used as primary tools for engagement of the Core Team and the public. The hub is an excellent platform to notify the public about opportunities for involvement and comment submittal. Furthermore, links to the hub site can be shared on community and agency websites to maximize circulation.

The hub site provides the ability to host a project tracking system, which is designed to provide real-time updates and the ability for multi-agency coordination and collaboration well after the completion of the CWPP update project. The tracking system is available for internal use and has the potential to operate with the following features:

- Project database
- Project entries and subentries into the database
- Funding tracking
- Milestone and goal tracking
- Project constraint/opportunity tracking
- Project progress tracking
- Agency delegation
- Images or other files attached to project records
- Spatially delineated project locations/working areas

Optional Task 7 Assumptions	<ul style="list-style-type: none">• For a successful hub site, SWCA may require that our GIS specialists be provided access to the City of Reno ArcGIS online account; SWCA suggests developing the hub site through the City's Esri portal. Our GIS specialists are experienced in the development and hosting of these platforms and will work with the City to determine a mutually agreeable approach to hosting.
Optional Task 7 Deliverables	<ul style="list-style-type: none">• Development of a hub site with tracking tool.

OPTIONAL TASK 8: EVACUATION ROUTE RISK AND EVACUATION ENTRAPMENT ANALYSES

As an optional task, SWCA can carry out two separate GIS-based analyses to determine the level of risk (wildfire) present in specific existing evacuation routes (as identified by the City) within the City and will develop a project recommendations matrix to guide mitigation efforts. One part of the analysis involves assessing road features, including road curvature, grade, length, surface material, connectivity, stability (bridged vs. unbridged), and adjacent

structure density. The other part of the analysis involves evaluating fire behavior in landscapes immediately adjacent to roads. This optional task could be utilized in the future by the City to develop wildfire evacuation plans.

Optional Task 8 Assumptions	<ul style="list-style-type: none"> This task does not include development of evacuation routes or plans, it is limited to evaluation of existing routes provided to SWCA by the City
Optional Task 8 Deliverables	<ul style="list-style-type: none"> Analysis of level of risk (wildfire) present in specific existing evacuation routes (as identified by the City). Evaluation of fire behavior in landscapes immediately adjacent to specified roads.

PROPOSED WORK SCHEDULE

TASK	TIME FROM NOTICE TO PROCEED (1/1/2025)	APPROXIMATE DATE
Task 1: Review Existing Information	1 Month	February 2025
Task 2: Conduct Hazard & Risk Analysis	2-3 Months	March-April 2025
Task 3: Stakeholder Outreach & Public Engagement		
Task 3A: Engage Interested Parties and Form a Core Team	2 Weeks	January 2025
Task 3B: Host Core Team Workshops		
<i>Core Team Meeting 1: Virtual (2 hours)</i>	2 Months	March 2025
<i>Core Team Meeting 2: In-Person Workshop (4 hours)</i>	5 Months	June 2025
<i>Core Team Meeting 3: Virtual (2 hours)</i>	10 Months	October 2025
Task 3C: Host Community Workshops and Conduct Public Outreach		
<i>Community Workshop 1: In-Person</i>	5 Months	June 2025
<i>Public Meeting: Virtual</i>		
Task 4: Mapping & GIS	3 Months	March 2025
Task 5: Prepare the CWPP	7 Months	August 2025
Task 5A: Develop the CWPP Draft	12 Months	January 2026
Task 5B: Develop Priorities, Recommendations, and Action Plan	7 Months	August 2025
Task 6: Project Management, Administration, and Safety	18 months	Entire Project
OPTIONAL		
Task 7: Hub Site and Project Tracking Tool	TBD	TBD
OPTIONAL		
Task 8: Evacuation Route Risk and Evacuation Entrapment Analyses	TBD	TBD

SWCA

APPENDIX A:

Resumes

JAYDEN PETERSON, B.S., PROJECT MANAGER

Jayden Peterson is a Forest Ecologist and Project Manager for SWCA's Nevada offices. He helps develop all aspects of forestry and wildfire planning not only in Nevada, but across the United States. Prior to joining SWCA, Jayden worked for government entities at the federal, state, and local level such as the U.S. Forest Service, Nevada Division of Forestry, and Lake Travis Fire Rescue. He has successfully provided guidance and training for many projects including fuels reduction, timber/fire salvage, prescribed fire, and fire suppression. His experience working in Montana, Texas, and Nevada has allowed him to have a breadth of knowledge in natural resource issues across a variety of ecosystems. He specializes in project management, stakeholder coordination, and facilitating collaboration across property boundaries and jurisdictions.

YEARS OF EXPERIENCE

7

EXPERTISE

Public involvement and stakeholder engagement

Grant administration

Project scoping

Forestry and wildfire planning

Grant writing

Post-fire monitoring and restoration

Agreement facilitation

Ecology/ecological restoration

Invasive species management

EDUCATION

B.S., Forestry, c: Resources Management; University of Montana, Missoula; 2019

REGISTRATIONS / CERTIFICATIONS

Certified Type II Wildland Firefighter; 2017

TRAINING

National Wildfire Coordinating Group Resource Advisor Trainee; 2022

FFT2 Wildland Firefighter Certification; 2017

State of Nevada Pesticide Applicator; 2022

SELECTED PROJECT EXPERIENCE (* denotes project experience prior to SWCA)

County of Mendocino Community Wildfire Protection Plan; Mendocino County; Mendocino County, California. SWCA was retained to author and organize all aspects of a Community Wildfire Protection Plan for Mendocino County, California. *Role: Project Manager. Managed, coordinated, and guided the County of Mendocino in developing a Community Wildfire Protection Plan. Facilitated stakeholder meetings and led an authorship team to create a living document to guide future wildfire mitigation decisions.*

One Truckee River WaterSMART Cooperative Watershed Management Program Phase I Grants; Nevada Land Trust; Washoe County, Nevada. SWCA has supported One Truckee River and Nevada Land Trust since 2019, enhancing sustainable vegetation management and restoration planning along the Truckee River in Nevada. SWCA led Phase I to develop a framework vegetation management and restoration plan, engaging stakeholders and creating support tools for regulatory clarity and vegetation compatibility. Phase II focused on completing a conditions assessment of the Truckee River, synthesizing new and existing data, and collaboratively prioritizing restoration projects. SWCA's tailored stakeholder engagement approach and grant-writing efforts were key to the success of both project phases. *Role: -Vegetation Management Subject-Matter Expert. Led and coordinated vegetation surveys along the Truckee River. Mapped and recorded vegetation types and locations in need of restoration of invasive plant species control.*

*** NV Energy Transmission Clearance; Nevada Division of Forestry; Clark County, Nevada.** *Role: Project Manager. Ensured protection of endemic species and butterfly host and larval plants while hazard tree removal and biomass reduction conducted along transmission lines. Aided in the identification and recording of hazard trees and made on the ground project decision with hand crews to ensure project success.*

*** Virgin/Muddy River Fuels Reduction; Various Private Landowners; Clark County, Nevada.** *Role: Project Manager. Oversaw project operations of hand crews in tamarisk removal for fuels reduction and riparian restoration. Administered federal grant and tracked spending and reported project status to federal partners.*

*** Bristlecone-pine Restoration; Private Landowner; Clark County, Nevada.** *Role: Project Manager. Oversaw project operations of hand crews in white fir removal to aid in fuels reduction and bristlecone-pine restoration. Administered grant and tracked spending. Reported project details to partner federal agency.*

PARIS KRAUSE, M.S., ASSISTANT PROJECT MANAGER

Paris Krause is an Ecologist with over 6 years of experience as a professional biologist and ecologist, where she serves as both a field biologist and technical report writer. She recently acted as assistant project manager to assist the Truckee Fire Protection District with their 2024 community wildfire protection plan update. Her professional background includes leading field data collection and data processing efforts for fire and forest ecology surveys via remote light detection and ranging (LiDAR) sensing and traditional forestry survey methods. Additionally, she was the field crew lead for pre- and post-fire forest health and ecology surveys for vegetation and fuel structure characterization for the USFS in forested and chaparral ecosystems of the Cleveland NF, San Bernardino NF, Angeles NF, and Los Padres NF. Paris also has experience assisting California Department of Forestry and Fire Protection (CAL FIRE) Incidents with GIS map production on the Monument Fire (2021) and Oak Fire (2022).

YEARS OF EXPERIENCE

6

EXPERTISE

Community Wildfire Protection Plan (CWPP)

Forest health and ecology surveys

Post-fire monitoring and restoration

Threatened and endangered wildlife and botanical surveys

CEQA consultation

Environmental construction monitoring

Wetland and waterbody delineation

Technical report preparation

GPS / GIS / data verification

LiDAR remote sensing

EDUCATION

M.S., Biology; Sonoma State University; 2021

B.S., Field and Wildlife Biology; Cal Poly, San Luis Obispo; 2015

PERMITS

Plant Voucher Collecting Permit; California Department of Fish and Wildlife; 2081(a)-22-065-V

SELECTED PROJECT EXPERIENCE

CWPP for the Truckee Fire Protection District; Truckee Fire Protection District; Nevada County, California. The Truckee Fire Protection District (the District) has contracted SWCA to prepare a unique CWPP for the approximately 125 square miles encompassing the District. The purpose of this CWPP is to serve as a framework to identify and prioritize all future wildfire hazard protection projects and foster a community-wide collaborative approach to reduce wildfire risk and hazards to life, property, and natural resources within the District. The CWPP process incorporates other programs and engages other agencies currently working with the District on interconnected work. The project involves identifying and prioritizing the use of Measure T funds to conduct fuels reduction projects, implement defensible space measures, and increase wildfire preparedness and response for the region. SWCA is providing interactive, public-interfacing tools, such as an online story map and project hub site, to promote accessibility and regular updating of the CWPP, as well as facilitating in-person and virtual public meetings and preparing community surveys. The update includes collaboration with other firms leading the way in landscape-scale modeling and planning for fuels management and community preparedness. *Role: Assistant Project Manager. Assist with development of the CWPP, host outreach events, and communicate with the client.*

LS Power Wildfire Mitigation Plan for California; LS Power Grid California, LLC; Shasta County, California. SWCA is providing fire planning services, including a WMP for two substation installations. *Role: Fire Planner. Assist with development of the WMP.*

Palmer Drive Project Environmental Services; Smith & Gabbert, Inc.; El Dorado County, California. SWCA is providing environmental services, including, but not limited to, protocol-level botanical survey and inventory report for a proposed residential/ industrial development located on Palmer Drive in the unincorporated community of Shingle Springs. *Role: Staff Biologist. Conducted protocol rare plant surveys, floristic surveys, and community vegetation mapping and prepared botanical report.*

3000 Alexandrite Drive Biological Resources Services; Ciconia Village, LLC; El Dorado County, California. SWCA is providing biological resources services for the

development of a residential community of 45 (1 acre each) lots on a 140-acre property in the community of Rescue. The remainder of the land will be natural reserve and agricultural. *Role: Staff Biologist. Assisted with fieldwork for Aquatic Resource Delineation survey.*

VICTORIA AMATO, M.S., FIRE AND FUELS TECH ADVISOR

Victoria Amato is a principal fire planner in SWCA's Denver, Colorado, office with a diverse background in fire ecology and resource management. She has served as project manager on over 50 community wildfire protection plans (CWPPs) and fire management plans across the United States in a range of ecosystems. She has considerable experience working with public and private stakeholders, having facilitated multiple outreach meetings, sometimes in controversial settings. She has extensive experience in the development of wildfire risk assessments using fire behavior modeling programs and on-the-ground assessments. Victoria has worked with a variety of land management agencies across the United States, including the U.S. Forest Service (USFS), Bureau of Land Management (BLM), U.S. Fish and Wildlife Service, and National Park Service, studying hazardous fuel reduction, wildland–urban interface (WUI) fire mitigation, fire behavior modeling, and monitoring of burned areas.

YEARS OF EXPERIENCE

19

EXPERTISE

CWPPs

Fire management planning

Community outreach and youth training

EDUCATION

M.S., Forestry, e: Fire Ecology/Habitat Management; Colorado State University; Fort Collins, Colorado; 2006

M.S., Resource Management; University of Edinburgh, Scotland; 2003

B.S. with honors, Geography; University of Exeter, England; 2000

REGISTRATIONS / CERTIFICATIONS

Certified Type II Wildland Firefighter, New Mexico; 2017

TRAINING

S290 Wildland Fire Behavior; 2014

S130/190 Basic Wildland Firefighter; 2017

FIREWISE Communities, Firewise Communities USE; 2007

AWARDS / HONORS

Lawrence S. Semo Scientific Achievement Award

SELECTED PROJECT EXPERIENCE

Santa Clara County CWPP; Santa Clara County Fire Department; Santa Clara County, California. SWCA developed the original countywide CWPP and recent 5 year update for a high-end CWPP and Unit Plan for Santa Clara County that incorporates a multitude of agencies and jurisdictions. SWCA coordinated all stakeholder and community meetings and facilitated an extensive outreach effort through an online survey portal and other online media. The CWPP comprised a comprehensive risk/hazard analysis that includes an assessment of wildland and urban fuels. *Role: Project Manager. Managed project and served as primary author.*

Solano County CWPP; Solano County; Solano County, California. SWCA developed a CWPP to provide stakeholders and those living in Solano County with an overview of wildland fire risks, hazards, and values within the County; recommended actions (which are guided by extensive scientific data analysis) to reduce the risk of catastrophic wildfire to communities; and develop an Action Plan with roles and responsibilities to ensure actions are taken to address risk and hazard. The plan included local community engagement to ensure broad public and stakeholder support. *Role: Project Manager. Managed project, facilitated meetings, generated document content.*

Tulare County CWPP; Tulare County Resource Conservation District; Tulare County, California. SWCA worked with stakeholders in Tulare County to develop a comprehensive CWPP to address catastrophic fire risk in a diverse WUI. SWCA developed an intricate wildfire risk and hazard assessment that includes desktop analysis and on-the-ground assessment. The CWPP involved collaborative planning that incorporated a large range of stakeholders. *Role: Technical Lead. Provided stakeholder engagement and technical oversight.*

Inyo County CWPP Update; County of Inyo; Inyo County, California. After successfully completing two community-scale CWPP's in Inyo County, SWCA was contracted by the County of Inyo to develop a comprehensive countywide CWPP. Our team worked closely with the Inyo County Office of Emergency Services, local Fire Safe Councils, local fire authorities, California Department of Forestry and Fire Protection (CAL FIRE), water and power utilities, BLM, USFS, California Department of Fish and Wildlife, and the National Park Service to develop a comprehensive CWPP that identifies high wildfire risk areas, WUI communities, hazard reduction priorities and projects, and

high-value assets in need of protection from wildfires, among other objectives. *Role: Environmental Specialist and Subject-Matter Expert. Provided technical oversight and facilitation.*

LIA WEBB, B.S., SENIOR AUTHOR

Lia Webb has over 20 years of experience as an environmental scientist and landscape ecologist for private, non-profit, and government clients in California, Oregon, Nevada, Illinois, and international customers. Lia supports SWCA's West Coast and Great Basin operations with over a decade of experience working throughout the Sierra Nevada. She has unique expertise in public engagement, scientific approach to alternatives development, project prioritization, decision-making, and grant funding assistance. Lia has led and managed complex and controversial projects relating to restoration, sensitive habitats and species, forestry and fire, trails and recreation, transportation and infrastructure, and climate change.

YEARS OF EXPERIENCE

22

EXPERTISE

Esri geographic information systems mapping software and programming (ArcGIS, ArcInfo, etc.)

Federal, state, and local permitting

Forestry and fire resiliency

Grant writing and funding assistance

NEPA compliance

Non-profit partnerships

Stakeholder and public engagement, outreach, and education

Waters and wetlands conservation

Wilderness planning and management

Wildlife corridor studies

EDUCATION

B.S., Environmental Science; Humboldt State University, Humboldt, California; 2002

SELECTED PROJECT EXPERIENCE (* denotes project experience prior to SWCA)

One Truckee River WaterSMART Cooperative Watershed Management Program Phase I Grants; Nevada Land Trust; Washoe County, Nevada. SWCA has supported One Truckee River and Nevada Land Trust since 2019, enhancing sustainable vegetation management and restoration planning along the Truckee River in Nevada. SWCA completed a conditions assessment, synthesized new and existing data, and collaborated with stakeholders to prioritize vegetation management and restoration projects. *Role: Environmental Scientist. Conducted conditions assessment fieldwork to assess various parameters as a basis to prioritize vegetation management strategies and restoration opportunities.*

Inyo County Community Wildfire Protection Plan (CWPP); County of Inyo; Inyo County, California. After successfully completing two community-scale CWPP's in Inyo County, SWCA was contracted by the County to develop a comprehensive countywide CWPP. Our team worked closely with the Inyo County Office of Emergency Services, local Fire Safe Councils, local fire authorities, CAL FIRE, water and power utilities, BLM, USFS, CDFW, and the NPS to develop a comprehensive CWPP that identifies high wildfire risk areas, wildland-urban interface (WUI) communities, hazard reduction priorities and projects, and high-value assets in need of protection from wildfires, among other objectives. *Role: Environmental Scientist. Coordinated with client and stakeholders, conducted public outreach and site visits, meeting facilitation, incorporated public comments.*

Kaiser East Restoration Project Decision Memo; National Forest Foundation (NFF); Fresno County, California. SWCA assisted the NFF on behalf of the USFS to return the structure, composition, and function of the Sierra Nevada conifer forest to the natural range of variation described in the 2023 Sierra National Forest Land and Resource

Management Plan desired conditions. SWCA conducted the analysis and documentation of the project in support of NEPA proposed action and decision memo. Project area included up to 11,000 acres, with plans to treat approximately 2,800 acres under a forest and grassland management categorical exclusion. The project was designed to reduce surface fuel loading, manage stand density, promote survival of fire-tolerant pines, increase regeneration of shade intolerant species, and reduce ladder fuels. *Role: Ecologist. Provided technical assistance for wetlands, biology, forestry and fuels; led technical staff contributing to proposed action and protective measures.*

*** Post-August Fire USFS Burned Area Emergency Response Team; Northern California Resource Center; Mad River, California.** *Role: Environmental Scientist. Conducted post-fire soils/hydrology monitoring, road surveys, timber cruising, and GIS mapping to assist and supplement USFS staff.*

*** June Mountain Whitebark Pine Restoration Project; California Trout; June Lake, California.** *Role: Project Manager. Managed funding (grants application and award management), budgets, bids, contracting, sub-consultants and contractors, and weekly forestry inspections during implementation of removal of dead trees killed by bark beetle adjacent to ski area and critical infrastructure within the WUI. Project included stand and meadow restoration post-tree removal.*

SOPHIE BUTLER, B.S., PUBLIC INVOLVEMENT SPECIALIST

Sophie Butler is an environmental planner and project manager with experience in a variety planning and restoration projects. Sophie primarily provides her expertise to environmental planning projects, public outreach and meeting facilitation, and riparian restoration planning. Her National Environmental Policy Act (NEPA) experience includes work that has been focused on the preparation of categorical exclusions, environmental assessments (EAs), and environmental impact statements (EISs) for projects on land administered by the Bureau of Land Management (BLM). With a broad range of knowledge and strong technical writing skills, Sophie can complete analysis for many resources on a given project. Her contributions to early-stage planning projects include plans of development (PODs) and plans of operations development with the BLM and U.S. Forest Service. These planning projects have included communication towers, solar energy centers, transmission lines, and mining projects. Sophie frequently serves as meeting facilitator for the restoration and planning projects she manages.

YEARS OF EXPERIENCE

4

EXPERTISE

Environmental planning

Public involvement and engagement

EA technical writing and assistant project management

EIS technical writing and assistant project management

PODs and plan of operations development

EDUCATION

B.S., Environmental Science, e:
Environmental Systems and Society;
University of California Los Angeles, Los Angeles; 2018

TRAINING

National Environmental Policy Act,
SWCA Environmental Consultants;
2022

SELECTED PROJECT EXPERIENCE

One Truckee River WaterSMART Cooperative Watershed Management Program Phase I Grants; Nevada Land Trust; Washoe County, Nevada. SWCA has supported One Truckee River and Nevada Land Trust since 2019, enhancing sustainable vegetation management and restoration planning along the Truckee River in Nevada. SWCA led Phase I to develop a framework vegetation management and restoration plan, engaging stakeholders and creating support tools for regulatory clarity and vegetation compatibility. Phase II focused on completing a conditions assessment of the Truckee River, synthesizing new and existing data, and collaboratively prioritizing restoration projects. SWCA's tailored stakeholder engagement approach and grant-writing efforts were key to the success of both project phases. *Role: Assistant Project Manager. Served as the Assistant Project Manager for this restoration planning project. Coordinated fieldwork, the development of a restoration project prioritization tool, and completion of semi-annual progress reports, and served as the lead facilitator for a technical working group composed of local and state agencies.*

Pyramid Lake Paiute Tribe Triennial Review of Water Quality Standards; Pyramid Lake Paiute Tribe; Washoe County, Nevada. Triennial review of water quality standards for the Lower Truckee River and Pyramid Lake in compliance with Section 303(C) of the federal Clean Water Act. *Role: Public Involvement Specialist. Assisted in preparation for and completion of the public involvement components of the project, including public meetings, comment analysis, and incorporation of stakeholder input.*

Lake Powell & Lake Mead Supplemental EIS; Environmental Management and Planning Solutions, Inc.; Clark County, Nevada. SWCA is assisting with the analysis of significant environmental issues resulting from the proposed action and its alternatives

in the supplemental EIS. SWCA is also managing the public involvement tasks and supporting the Bureau of Reclamation with tribal engagement and Section 106 compliance. *Role: Public Involvement Specialist. Worked with a team to categorize and analyze large batches of public comments related to this complex, high interest project in Southern Nevada.*

Wolf Creek Reservoir Third-Party Environmental Impact Statement; Rio Blanco Water Conservancy District; Rio Blanco County, Colorado. SWCA is providing third-party NEPA services to the BLM White River Field Office to support the preparation of an EIS to analyze the environmental impacts of the proposed Wolf Creek Reservoir. It is anticipated that the proposed project will also require an amendment to the BLM's resource management plan. *Role: Environmental Planner. Served as one of the primary authors for the public health and safety section of the Analysis of the Management Situation document, to be used in the preparation of the RMP revision.*

MANDY BENGTON, PH.D., PUBLIC INVOLVEMENT SPECIALIST

As a principal investigator and trained technical meeting facilitator in SWCA's Reno, Nevada, office, Dr. Mandy Bengtson works closely with clients to develop practical solutions and plans to address complex natural resource challenges. Dr. Bengtson works with stakeholders to solidify goals and objectives for conservation projects and to develop approaches to meet the unique needs of all parties. Dr. Bengtson is leading One Truckee River's (OTR's) coordinated vegetation management planning efforts for the Truckee River's urban core, which includes facilitation of technical working group meetings. Dr. Bengtson has diverse scientific expertise in habitat restoration and ecosystem management, with specialized experience in soil conservation and revegetation planning and data analysis. Her background in soil science, applied ecology, and statistics has contributed to the publication of dozens of land management reports and 16 peer-reviewed scientific publications. She and her colleagues have developed novel conceptual models to support conservation and sustainable ecosystem management.

YEARS OF EXPERIENCE

20

EXPERTISE

Soil science and geomorphology

Biostatistics

Ecological restoration

EDUCATION

Ph.D., Geoscience e: Soil Science (Soil Ecology); University of Nevada, Las Vegas; 2011

B.S. magna cum laude, Soil Science e: Water Quality m: Geology; University of Missouri, Columbia; 2005

TRAINING

International Association for Public Participation Training; 2018

Soil characterization and mapping for the National Cooperative Soil Survey, U.S. Department of Agriculture–Natural Resource Conservation Service; 2008

Ecological surveys (design and execution): microbial (biological soil crusts, mycorrhizae, aqueous geothermal systems), forests, grasslands, arid shrublands, University of Nevada; 2007–2014

SELECTED PROJECT EXPERIENCE

OTR WaterSMART Cooperative Watershed Management Program Phase I Grants; Nevada Land Trust; Washoe County, Nevada. SWCA has supported OTR and Nevada Land Trust since 2019, enhancing sustainable vegetation management and restoration planning along the Truckee River in Nevada. SWCA led Phase I to develop a Framework Vegetation Management and Restoration Plan, engaging stakeholders and creating support tools for regulatory clarity and vegetation compatibility. Phase II focused on completing a conditions assessment of the Truckee River, synthesizing new and existing data, and collaboratively prioritizing restoration projects. SWCA's tailored stakeholder engagement approach and grant-writing efforts were key to the success of both project phases. *Role: Principal Investigator and Meeting Facilitator. Oversaw all technical aspects of the project, including deliverable development; leading all technical working group meetings and stakeholder interviews.*

Upper Columbia United Tribes (UCUT) Wildlife Monitoring and Evaluation Program (UWMEP); Spokane, Washington. SWCA completed a comprehensive assessment and analysis of the UWMEP, which included an unbiased review of the UWMEP; an analysis to determine whether the UWMEP survey effort could be reduced at each monitoring station and potentially make resources and effort available to survey additional areas, or increase survey frequency at existing stations; and to identify strategies to align the annual analysis and reporting process with each Tribe's land management questions and goals. SWCA also led stakeholder meetings to support the UCUT's approach to restoration monitoring and helped its stakeholders make progress toward establishing effective restoration success criteria and metrics that support adaptive management of their diverse mitigation. *Role: Principal Investigator. Led assessment and analysis, developed novel approach to modeling, co-led all technical stakeholder meetings, and was the primary author and/or senior reviewer on all reports and deliverables*

Natural Resources Conservation Service (NRCS) Ecological Questionnaire Project; American Conservation Experience (ACE); Nationwide. For this project, ACE, SWCA, and NRCS formed a Technical Working Group (TWG) to consider how the Annual Monitoring Worksheet (for NRCS's wetland easement monitoring) might be modified and

how guidance could be given to monitoring staff to assess the ecological condition of NRCS easements. The TWG is working to build consensus from NRCS offices across the United States (each with their own unique set of restoration and land management approaches) to create a standardized protocol. *Role: Senior Scientist. Providing high-level oversight to develop a survey to solicit feedback from NRCS staff and to integrate responses into a cohesive Annual Monitoring Worksheet and Protocol.*

LIZ HITZFELDER, M.A. GEO., LEAD GEOSPATIAL SCIENTIST

Liz Hitzfelder is the Lead Geospatial Scientist for the Fire and Forestry group at SWCA out of the Denver, Colorado, office, with a geospatial modeling background specializing in fire and vegetation management. In graduate school, she specialized in applications of remote sensing to assess vegetation differencing for geomorphic changes. Liz is proficient with IFTDSS, ArcGIS, ArcPro, ArcGIS Online, and other geospatial applications. She has used her expertise in community wildfire protection plans (CWPPs) and fire mitigation projects to provide custom fuel and fire behavior modeling, risk assessment modeling, development of wildland-urban interface (WUI) community boundaries, ArcGIS StoryMap production, and geographic information systems (GIS) analysis. Liz has provided GIS services on multiple CWPPs across the country, including the Grand County, City of Boulder, Boulder County, Gilpin County, and Mesa County CWPPs in Colorado; the Truckee Fire, City of Temecula, Solano County, Santa Clara County, Inyo County, Kern County, Tulare County, and Three Rivers CWPPs in California; the Union County CWPP in Illinois; and the Martha's Vineyard CWPP in Massachusetts.

YEARS OF EXPERIENCE

7

EXPERTISE

ArcGIS, ArcPro, ERDAS Imagine, Pathfinder Office, Python, and other geospatial applications

GIS

CWPPs

EDUCATION

Master of Applied Geography,
Geographical Information Science;
Texas State University, San Marcos;
2019

B.S., Geography Water Resources, m:
Geology; Texas State University, San
Marcos; 2017

SELECTED PROJECT EXPERIENCE

CWPP for the Truckee Fire Protection District; Truckee Fire Protection District; Nevada County, California. The Truckee Fire Protection District (the District) has contracted SWCA to prepare a unique CWPP for the approximately 125 square miles encompassing the District. The purpose of this CWPP is to serve as a framework to identify and prioritize all future wildfire hazard protection projects and foster a community-wide collaborative approach to reduce wildfire risk and hazards to life, property, and natural resources within the District. The CWPP process incorporates other programs and engages other agencies currently working with the District on interconnected work. The project involves identifying and prioritizing the use of Measure T funds to conduct fuels reduction projects, implement defensible space measures, and increase wildfire preparedness and response for the region. SWCA is providing interactive, public-interfacing tools, such as an online story map and project hub site, to promote accessibility and regular updating of the CWPP, as well as facilitating in-person and virtual public meetings and preparing community surveys. The update includes collaboration with other firms leading the way in landscape-scale modeling and planning for fuels management and community preparedness. *Role: GIS Lead and Story Map/Hub Site Web Developer. Responsible for creating graphics, mapping, and story map/hub site for the CWPP.*

Inyo County CWPP Update; County of Inyo; Inyo County, California. After successfully completing two community-scale CWPPs in Inyo County, SWCA was contracted by the County of Inyo to develop a comprehensive countywide CWPP. Our team worked closely with the Inyo County Office of Emergency Services, local fire safe councils, local fire authorities, California Department of Fire and Forestry (CAL FIRE), water and power utilities, Bureau of Land Management, US.. Forest Service, California Department of Fish and Wildlife, and the National Park Service to develop a comprehensive CWPP that identifies high wildfire risk areas, WUI communities, hazard reduction priorities and projects, and high-value assets in need of protection from wildfires, among other objectives. *Role: GIS Lead and Story Map/Hub Site Web Developer. Responsible for creating graphics, mapping, and story map/hub site for CWPP.*

Solano County CWPP; Solano County; Solano County, California. SWCA developed a CWPP to provide stakeholders and those living in Solano County with an overview of wildland fire risks, hazards, and values within the County; recommended actions (which are guided by extensive scientific data analysis) to reduce the risk of catastrophic wildfire to communities; and develop an Action Plan with roles and responsibilities to ensure actions are taken to address risk and hazard. The plan included local community engagement to ensure broad public and stakeholder support. *Role: GIS Lead. Responsible for creating graphics, mapping, and wildfire risk assessment analysis for CWPP.*