

## **AGREEMENT FOR CONSULTANT SERVICES**

THIS AGREEMENT is made by and between TOWN OF LOS GATOS, a California municipal corporation, (“Town”) SWCA ENVIRONMENTAL CONSULTANTS, (“Consultant”), whose address is 60 Stone Pine Road, Suite 100, Half Moon Bay, CA 94019 shall be effective on the date that this Agreement is fully executed by the parties hereto (“Effective Date”). This Agreement is made with reference to the following facts.

### **I. RECITALS**

- 1.1 The Town desire to engage Consultant to provide a comprehensive vegetation management plan to reduce fire hazards along Los Gatos roadways and in Los Gatos open space.
- 1.2 The Consultant represents and affirms that it is willing to perform the desired work pursuant to this Agreement.
- 1.3 Consultant warrants it possesses the distinct professional skills, qualifications, experience, and resources necessary to timely perform the services described in this Agreement. Consultant acknowledges Town has relied upon these warranties to retain Consultant.

### **II. AGREEMENTS**

- 2.1 Scope of Services. Consultant shall provide services as described in that certain Proposal for Los Gatos Vegetation Management Plan sent to the Town on May 27, 2020, which is hereby incorporated by reference and attached as Exhibit A.
- 2.2 Term and Time of Performance. This contract will remain in effect from the date of execution to June 30, 2021. Consultant shall perform the services described in this agreement Exhibit A, including the proposed schedule.
- 2.3 Compliance with Laws. The Consultant shall comply with all applicable laws, codes, ordinances, and regulations of governing federal, state and local laws. Consultant represents and warrants to Town that it has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required for Consultant to practice its profession. Consultant shall maintain a Town of Los Gatos business license pursuant to Chapter 14 of the Code of the Town of Los Gatos.
- 2.4 Sole Responsibility. Consultant shall be responsible for employing or engaging all persons necessary to perform the services under this Agreement.
- 2.5 Information/Report Handling. All documents furnished to Consultant by the Town and all reports and supportive data prepared by the Consultant under this Agreement are the

Town's property and shall be delivered to the Town upon the completion of Consultant's services or at the Town's written request. All reports, information, data, and exhibits prepared or assembled by Consultant in connection with the performance of its services pursuant to this Agreement are confidential until released by the Town to the public, and the Consultant shall not make any of these documents or information available to any individual or organization not employed by the Consultant or the Town without the written consent of the Town before such release. The Town acknowledges that the reports to be prepared by the Consultant pursuant to this Agreement are for the purpose of evaluating a defined project, and Town's use of the information contained in the reports prepared by the Consultant in connection with other projects shall be solely at Town's risk, unless Consultant expressly consents to such use in writing. Town further agrees that it will not appropriate any methodology or technique of Consultant which is and has been confirmed in writing by Consultant to be a trade secret of Consultant.

- 2.6 Compensation. Compensation for Consultant's professional services **shall not exceed \$199,828**, inclusive of all costs. Payment shall be based upon Town approval of each task.
- 2.7 Billing. Billing shall be monthly by invoice within thirty (30) days of the rendering of the service and shall be accompanied by a detailed explanation of the work performed by whom at what rate and on what date. Also, plans, specifications, documents or other pertinent materials shall be submitted for Town review, even if only in partial or draft form.

Payment shall be net thirty (30) days. All invoices and statements to the Town shall be addressed as follows:

Invoices:  
Town of Los Gatos  
Attn: Accounts Payable  
P.O. Box 655  
Los Gatos, CA 95031-0655

- 2.8 Availability of Records. Consultant shall maintain the records supporting this billing for not less than three years following completion of the work under this Agreement. Consultant shall make these records available to authorized personnel of the Town at the Consultant's offices during business hours upon written request of the Town.
- 2.9 Assignability and Subcontracting. The services to be performed under this Agreement are unique and personal to the Consultant. No portion of these services shall be assigned or subcontracted without the written consent of the Town.
- 2.10 Independent Contractor. It is understood that the Consultant, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and not an agent or employee of the Town. As an independent contractor he/she shall not

obtain any rights to retirement benefits or other benefits which accrue to Town employee(s). With prior written consent, the Consultant may perform some obligations under this Agreement by subcontracting but may not delegate ultimate responsibility for performance or assign or transfer interests under this Agreement. Consultant agrees to testify in any litigation brought regarding the subject of the work to be performed under this Agreement. Consultant shall be compensated for its costs and expenses in preparing for, traveling to, and testifying in such matters at its then current hourly rates of compensation, unless such litigation is brought by Consultant or is based on allegations of Consultant's negligent performance or wrongdoing.

- 2.11 Conflict of Interest. Consultant understands that its professional responsibilities are solely to the Town. The Consultant has and shall not obtain any holding or interest within the Town of Los Gatos. Consultant has no business holdings or agreements with any individual member of the Staff or management of the Town or its representatives nor shall it enter into any such holdings or agreements. In addition, Consultant warrants that it does not presently and shall not acquire any direct or indirect interest adverse to those of the Town in the subject of this Agreement, and it shall immediately disassociate itself from such an interest, should it discover it has done so and shall, at the Town's sole discretion, divest itself of such interest. Consultant shall not knowingly and shall take reasonable steps to ensure that it does not employ a person having such an interest in this performance of this Agreement. If after employment of a person, Consultant discovers it has employed a person with a direct or indirect interest that would conflict with its performance of this Agreement, Consultant shall promptly notify Town of this employment relationship, and shall, at the Town's sole discretion, sever any such employment relationship.
- 2.12 Equal Employment Opportunity. Consultant warrants that it is an equal opportunity employer and shall comply with applicable regulations governing equal employment opportunity. Neither Consultant nor its subcontractors do and neither shall discriminate against persons employed or seeking employment with them on the basis of age, sex, color, race, marital status, sexual orientation, ancestry, physical or mental disability, national origin, religion, or medical condition, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment & Housing Act.

### **III. INSURANCE AND INDEMNIFICATION**

#### **3.1 Minimum Scope of Insurance:**

- i. Consultant agrees to have and maintain, for the duration of the contract, General Liability insurance policies insuring him/her and his/her firm to an amount not less than: one million dollars (\$1,000,000) combined single limit per occurrence for bodily injury, personal injury and property damage.
- ii. Consultant agrees to have and maintain for the duration of the contract, an Automobile Liability insurance policy ensuring him/her and his/her staff to

an amount not less than one million dollars (\$1,000,000) combined single limit per accident for bodily injury and property damage.

- iii. Consultant shall provide to the Town all certificates of insurance, with original endorsements effecting coverage. Consultant agrees that all certificates and endorsements are to be received and approved by the Town before work commences.
- iv. Consultant agrees to have and maintain, for the duration of the contract, professional liability insurance in amounts not less than \$1,000,000 which is sufficient to insure Consultant for professional errors or omissions in the performance of the particular scope of work under this agreement.

General Liability:

- i. The Town, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of Consultant, premises owned or used by the Consultant. This requirement does not apply to the professional liability insurance required for professional errors and omissions.
- ii. The Consultant's insurance coverage shall be primary insurance as respects the Town, its officers, officials, employees and volunteers. Any insurance or self-insurances maintained by the Town, its officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
- iii. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Town, its officers, officials, employees or volunteers.
- iv. The Consultant's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

3.2 All Coverages. Each insurance policy required in this item shall be endorsed to state that coverage shall not be suspended, voided, cancelled, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the Town. Current certification of such insurance shall be kept on file at all times during the term of this agreement with the Town Clerk.

- 3.3 Workers' Compensation. In addition to these policies, Consultant shall have and maintain Workers' Compensation insurance as required by California law and shall provide evidence of such policy to the Town before beginning services under this Agreement. Further, Consultant shall ensure that all subcontractors employed by Consultant provide the required Workers' Compensation insurance for their respective employees.
- 3.4 Indemnification. The Consultant shall save, keep, hold harmless and indemnify and defend the Town its officers, agent, employees and volunteers from all damages, liabilities, penalties, costs, or expenses in law or equity that may at any time arise or be set up because of damages to property or personal injury received by reason of, or in the course of performing work which may be occasioned by a willful or negligent act or omissions of the Consultant, or any of the Consultant's officers, employees, or agents or any subconsultant.

#### IV. GENERAL TERMS

- 4.1 Waiver. No failure on the part of either party to exercise any right or remedy hereunder shall operate as a waiver of any other right or remedy that party may have hereunder, nor does waiver of a breach or default under this Agreement constitute a continuing waiver of a subsequent breach of the same or any other provision of this Agreement.
- 4.2 Governing Law. This Agreement, regardless of where executed, shall be governed by and construed to the laws of the State of California. Venue for any action regarding this Agreement shall be in the Superior Court of the County of Santa Clara.
- 4.3 Termination of Agreement. The Town and the Consultant shall have the right to terminate this agreement with or without cause by giving not less than fifteen days (15) written notice of termination. In the event of termination, the Consultant shall deliver to the Town all plans, files, documents, reports, performed to date by the Consultant. In the event of such termination, Town shall pay Consultant an amount that bears the same ratio to the maximum contract price as the work delivered to the Town bears to completed services contemplated under this Agreement, unless such termination is made for cause, in which event, compensation, if any, shall be adjusted in light of the particular facts and circumstances involved in such termination.
- 4.4 Amendment. No modification, waiver, mutual termination, or amendment of this Agreement is effective unless made in writing and signed by the Town and the Consultant.
- 4.5 Disputes. In any dispute over any aspect of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, including costs of appeal.
- 4.6 Notices. Any notice required to be given shall be deemed to be duly and properly given if mailed postage prepaid, and addressed to:

Town of Los Gatos  
Attn: Town Clerk  
110 E. Main Street  
Los Gatos, CA 95030

SWCA Environmental Consultants  
Attn: Mark Brandi  
60 Stone Pine Road, Suite 100  
Half Moon Bay, CA 94019

or personally delivered to Consultant to such address or such other address as Consultant designates in writing to Town.

- 4.7 Order of Precedence. In the event of any conflict, contradiction, or ambiguity between the terms and conditions of this Agreement in respect of the Products or Services and any attachments to this Agreement, then the terms and conditions of this Agreement shall prevail over attachments or other writings.
  
- 4.8 Entire Agreement. This Agreement, including all Exhibits, constitutes the complete and exclusive statement of the Agreement between the Town and Consultant. No terms, conditions, understandings or agreements purporting to modify or vary this Agreement, unless hereafter made in writing and signed by the party to be bound, shall be binding on either party.

IN WITNESS WHEREOF, the Town and Consultant have executed this Agreement.

Town of Los Gatos by:

Consultant, by:

\_\_\_\_\_  
Laurel Prevetti, Town Manager

\_\_\_\_\_

Recommended by:

\_\_\_\_\_  
Matt Morley  
Parks and Public Works Director

\_\_\_\_\_  
Title

Approved as to Form:

Attest:

\_\_\_\_\_  
Robert Schultz, Town Attorney

\_\_\_\_\_  
Shelley Neis, MMC, CPMC, Town Clerk





# Proposal for LOS GATOS VEGETATION MANAGEMENT PLAN

## SUBMITTED TO

Matt Morley  
Town of Los Gatos  
Department of Parks & Public Works  
41 Miles Avenue  
Los Gatos, CA 95030



April 16, 2020  
Revised May 27, 2020

## SUBMITTED BY

SWCA Environmental Consultants  
60 Stone Pine Road, Suite 100  
Half Moon Bay, CA 94019



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.®

60 Stone Pine Road, Suite 100  
Half Moon Bay, California 94019  
Tel 650.440.4160 Fax 650.440.4165  
www.swca.com

April 16, 2020

Matt Morley  
Town of Los Gatos  
Department of Parks and Public Works  
41 Miles Avenue  
Los Gatos, CA 95030

Submitted via email to: [mmorley@losgatosca.gov](mailto:mmorley@losgatosca.gov)

**Re: Town of Los Gatos Vegetation Management Plan**

Dear Mr. Morley:

SWCA Environmental Consultants (SWCA) is pleased to submit our proposal to prepare a Vegetation Management Plan and associated environmental documentation for the Town of Los Gatos (Town). We understand that this document is of critical importance to the Town to limit fire danger in a timely manner and ensure the safety of its residents, and we are committed to providing creative and efficient solutions to allow the Town to begin implementing the plan this year.

Over the past 15 years, SWCA has developed and delivered almost 40 Community Wildfire Protection Plans (CWPPs) throughout the United States. Our approach is aligned with the National Cohesive Wildland Fire Management Strategy and Healthy Forest Restoration Act of 2003.

The contract will be managed from SWCA's Half Moon Bay Office under Principal-in-Charge Megan Peterson. Mark Brandi will serve as the project manager, coordinate the day-to-day execution of the project, and serve as the primary point of contact for the contract. Mr. Brandi's experience encompasses nearly two decades of natural resources management, design, and permitting, and he is well versed in all aspects of environmental consulting, including vegetation management, public outreach, and environmental review. Mr. Brandi will be supported by SWCA's in-house team of experts, including fire prevention planning specialists, arborists, and National Environmental Policy Act (NEPA)/California Environmental Quality Act (CEQA) planners. Our in-house expertise will be supplemented by our subconsultants—Carol Henson of Geo Elements and John Justice, former Deputy Chief of Fire Prevention for the Santa Clara County Fire Department. Geo Elements brings extensive on-the-ground experience in all aspects of wildland fire and fuels management throughout the western United States, and Mr. Justice brings invaluable expertise in local wildfire protection practices.

Furthermore, SWCA has a solid understanding of the work required for the project and of the Los Gatos community natural resources, having assisted the Santa Clara County Fire Department with the development of the countywide CWPP in 2016. This plan included a detailed analysis of wildfire hazards within the Town limits and mitigation projects and prioritizations that will directly inform the development of the Vegetation Management Plan.

Thank you for taking the time to review our submission. Should you have any questions or require additional information, please contact me at (650) 440-4160 x 6412 or [mark.brandi@swca.com](mailto:mark.brandi@swca.com).

Sincerely,

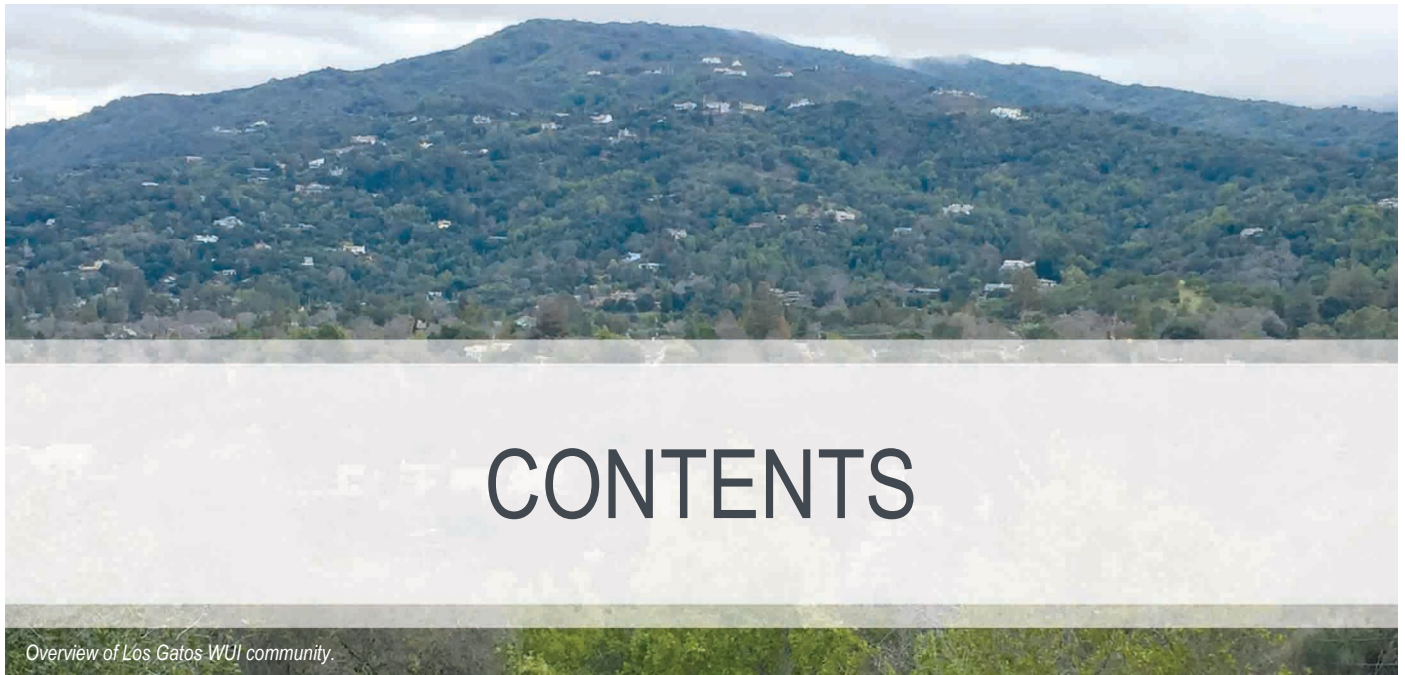
A handwritten signature in black ink that reads 'Mark C Brandi'.

Mark Brandi  
Project Manager

A handwritten signature in blue ink that reads 'Megan Peterson'.

Megan Peterson  
Principal-In-Charge





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*Overview of Los Gatos WUI community.*

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## A. EXPERIENCE AND QUALIFICATIONS

### SWCA ENVIRONMENTAL CONSULTANTS

An employee-owned corporation established in 1981, SWCA Environmental Consultants (SWCA) specializes in providing comprehensive environmental planning, regulatory compliance, and natural and cultural resource 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 the challenges your staff face. We offer the Town of Los Gatos (Town) a focused suite of environmental consulting services combined with regional knowledge, professionalism, customer focus, and high-quality service. We apply our motto “**Sound Science, Creative Solutions**” to each of our projects, producing defensible technical results that ensure project success.

Since our founding in 1981, SWCA has grown into a large business with 1,200 employees in 38 offices nationwide, including six offices in California—Half Moon Bay, San Francisco, Sacramento, San Luis Obispo, Pasadena, and San Diego. Our in-house experts include project managers, permitting specialists, California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) planners, fire planners, biologists, archaeologists, paleontologists, architectural historians, technical editors, and geographic information system (GIS) specialists. Our natural and cultural resource specialists are particularly well known for exceptional data collection, analysis, and deliverable production, which ensures our clients receive high-quality environmental documentation.

Drawing on three decades of experience providing environmental services and deep roots in the Bay Area, SWCA offers the ideal combination of local focus, bench strength, and technical expertise.

### FIRE RISK ASSESSMENT

For over 16 years, the SWCA team has provided natural and cultural resource management and planning services related to fire and forest management. We have developed 40 Community Wildfire Protection Plans (CWPPs) across the United States and have assisted many communities in coordinating Firewise programs. In 2016, SWCA worked with federal, state, and local stakeholders to prepare the Santa Clara County CWPP, which identifies the accumulation of wildland fuels, development within or near the wildland-urban interface (WUI), rugged terrain, and prolonged dry fire seasons as major sources of wildfire risk in Santa Clara County. In addition to our extensive CWPP work, SWCA has completed multiple Fire Management Plans (FMPs) and accompanying NEPA documents for the National Park Service (NPS), and hazardous fuels reduction planning and accompanying NEPA documents for U.S. Forest Service (USFS) projects across the United States.



*Active wildfires can be used to produce better fire behavior modeling to determine behavior patterns.*

In addition, SWCA recently prepared a site-specific wildfire assessment to support the Canyon Lane Roadway Improvements Project on behalf of the County of San Mateo. That wildfire assessment evaluated the project’s exposure to wildland fire by characterizing the biophysical setting and fuel types, modeled fire behavior in the event that a wildland fire occurred on-site, and provided mitigation measures to reduce the risk of the project causing wildland fire. The results of the wildfire assessment were then used to develop the Wildfire section of the Environmental Impact Report (EIR) for the project.

Our fire planning specialists have considerable experience that we can apply to the development of the Vegetation Management Plan (VMP), including developing risk assessments utilizing the Interagency Fuel Treatment Decision Support System (IFTDSS), FARSITE, FlamMap and BehavePlus. Our GIS team is well equipped and qualified to develop high-quality displays, maps, and map sheets to support the planning effort, as well as other graphic information for meetings.

## ARBORIST SERVICES

SWCA provides top-quality arboricultural and horticultural solutions for project permitting and implementation of mitigation/monitoring requirements. Our specialists have the expertise to solve a myriad of tree-related issues in both urban and natural environments, and we employ a diverse group of resource scientists, including Certified Arborists, urban foresters, botanists, and restoration ecologists, who can produce high-quality, cost-effective solutions for our clients, while simultaneously meeting stringent agency requirements. We have provided arborist services to federal, state, and municipal agencies as well as private development companies and landowners.

SWCA’s team of arboricultural specialists regularly conduct urban street tree inventories, oak woodland surveys, and tree health assessments, including macrolevel visual health assessments, microbial and fungal diagnoses, and analyses of soil composition and quality. They have developed street tree plans, oak tree mitigation and monitoring plans, habitat restoration plans for oak woodlands, and tree inventory and preservation plans in support of project permitting. Finally, they have implemented numerous mitigation and monitoring programs that included arboricultural components, habitat restoration efforts, native plant landscaping, and tree planting and care.

SWCA’s arborists have conducted numerous surveys throughout California for tentative tract maps, parcel maps, and other types of projects. During these surveys, trees are tagged and numbered, and data collected for each tree includes species, height, diameter, canopy spread, physical condition, suggested treatment, and rating, and locations are mapped using Global Positioning System (GPS) devices.

**TESTIMONIAL**

“We have already recommended SWCA to colleagues. Thank you for producing a great product for us!”

*Jenny Hall  
Josephine County Emergency Manager  
Rogue Valley Integrated Fire Plan  
August 2017*

## NATURAL RESOURCES SERVICES

SWCA’s California team of biologists includes top scientists, restoration ecologists, and arborists in their fields, respected by their peers and natural resource agency personnel alike. SWCA has a solid understanding of the work required for VMPs, and we have worked on similar vegetation removal projects. SWCA recently prepared Initial Study/Mitigated Negative Declarations (IS/MNDs) for four California Pacific Gas & Electric Company (PG&E) vegetation removal projects—two in San Luis Obispo County and one each in Half Moon Bay and San Benito County. Details for these projects have been provided in **Section B, Relevant Projects**.

In addition, our biologists have extensive project experience, including conducting siting, alternatives, and constraints analyses; recording and documenting pre-project existing biological conditions; conducting wetland and waters delineations; and developing and implementing specialized studies, mitigation and monitoring plans, and environmental compliance programs.

SWCA biologists have a thorough understanding of the diverse ecological systems and processes within the San Francisco Bay region, as well as its many sensitive natural resources, including jurisdictional and sensitive habitats, rare plants and wildlife species, wetland and water resources, and urban forests and native woodlands. Additionally, we are experts in the laws, regulations, and ordinances that protect sensitive natural resources, as well as the associated agency consultation, permitting, and compliance processes.

### ***Vegetation Management***

Since 2008, SWCA has been involved in post-fire restoration projects and continues to assist both public and private partners with post-fire recovery and rehabilitation. We frequently work with federal, state, and local governments as well as private landowners on wildfire planning and restoration projects, from helping to secure funding, to assessment of post-fire vegetation recovery, engineering plans for erosion control and hydrological processes, and recommended actions such as vegetation management for infrastructure protection. SWCA can also provide extensive pre-fire planning services that utilize fire behavior modeling and geomorphological modeling to identify natural resources and infrastructure that would be vulnerable to extreme fire behavior. This modeling process can be used to develop mitigation measures and vegetation management strategies to improve overall resiliency to fire and pre-planning to enhance post-fire response.

SWCA encourages accurate preconstruction vegetation evaluations for many of our projects. There are many reasons why these upfront efforts can reduce long-term project costs, including providing a basis for project design and restoration planning, identifying an accurate baseline for stormwater management permit closure following project completion, and characterizing preconstruction conditions on third-party property for the purposes of landowner negotiation, to name a few. In SWCA's experience, one size does not fit all for these efforts—while vegetative cover analysis for the purposes of stormwater permit closure can be effectively approximated using rapid field techniques, we may recommend more detailed, robust methods for other matters such as U.S. Army Corps of Engineers (USACE) Section 404 restoration area monitoring or when working on a demanding land owner's property.



*SWCA constructed a ramp to skid vegetation over a creek without heavy equipment.*

SWCA's restoration specialists also regularly develop habitat restoration plans that provide specifications that can be implemented by contractors to meet project pre-planning, restoration, or mitigation requirements. These plans will typically include details for vegetation management and removal, grading, soil nutrient and preparation requirements, seed mix and live plant material lists, plant and erosion control installation, irrigation, and monitoring and maintenance activities. We have developed these plans for restoration projects that were required by USACE Section 404 permits, federal land leasing agencies, parks and open space districts, towns, and private property owners. We have qualified field technicians with experience observing restoration and mitigation project implementation who are available to provide services during construction/vegetation management activities. And, following construction, we are frequently asked to conduct post-construction monitoring and reporting. In addition, SWCA restoration specialists work with project proponents to identify long-term maintenance and monitoring programs that will meet the goals of individual vegetation management projects.

### ***Restoration and Conservation***

SWCA has successfully developed mitigation, habitat restoration design, and environmental compliance programs for projects ranging in size from single-repair actions to multi-year, multi-million-dollar contracts. Our services include working with regulatory agencies and construction contractors to identify and understand the critical path timelines for environmental elements of projects, ensure environmental compliance of project designs, provide environmental training and education for construction crews, and coordinate and monitor the environmental commitments and mitigation measures as the project is implemented.

Our team also includes specialists who develop mitigation and monitoring plans for jurisdictional habitats and special-status species, plan and implement habitat restoration efforts in upland, riparian, and bayfront ecosystems; and coordinate land acquisition efforts within agency-approved conservation and restoration sites. In addition, SWCA is an industry-recognized expert at wetlands and waters of the U.S. restoration and permitting activities. We have



performed wetland and waterway delineations and successfully worked with various stakeholder groups including counties, regulatory agencies, non-governmental organizations, and private investors (e.g., mitigation bankers) to establish mitigation banks, restoration sites, and permittee-responsible mitigation sites throughout California.

## CEQA AND NEPA SERVICES

SWCA excels at preparing objective, technically compliant, legally defensible, and clearly written environmental documents to enable approval and speedy implementation of both public and private projects. Our experienced staff have completed hundreds of CEQA documents, including EIRs, IS/MNDs, Mitigation Monitoring and Reporting Programs (MMRPs), and CEQA findings. NEPA documents completed by our local staff include Environmental Impact Statements (EISs), Environmental Assessments (EAs), Records of Decision (RODs), Finding of No Significant Impact (FONSI) decision documents, and Preliminary EA Reports. Our local team is supplemented, as needed, by our company's readily available team of NEPA experts.

SWCA professionals have managed, written, and produced CEQA and NEPA documentation for projects of all types and sizes. Projects have included general and specific plan amendments; area plans; residential, commercial, mixed-use, and industrial land development; wineries; parks and open space; mining; water resources; telecommunication projects; energy production and distribution; transportation; pipelines, fiber optic cables, and other linear projects; landfills; and natural resources management plans. In addition to preparing entire CEQA and NEPA documents, SWCA has the qualifications and experience to:

- Prepare key technical sections of CEQA and NEPA documents;
- Conduct strategic third-party review of CEQA documents prepared by others;
- Comprehensively administer the CEQA process for agencies needing additional staff resources, including staff reports and presentations; and
- Prepare and implement mitigation monitoring and reporting programs.

SWCA has extensive experience providing CEQA services to numerous Bay Area jurisdictions, including the City and County of San Francisco, City of Vallejo, City of Concord, County of San Mateo, City of Half Moon Bay, and City of South San Francisco. SWCA has also provided other environmental consulting services (e.g., biological and cultural surveys and compliance monitoring) primarily for utility clients for numerous projects located within Santa Clara County. As previously mentioned, SWCA was contracted by the Santa Clara County Fire Department to prepare the County's CWPP in 2016. Given this extensive local and regional experience, SWCA has unsurpassed knowledge of and familiarity with all aspects of environmental review and procedures required by CEQA, as well as many of the challenges facing the Town with respect to environmental review. SWCA is committed to objective, thorough analyses and takes a strategic approach to ensure maximum flexibility through the planning and approval process.

**FACILITATION AND PUBLIC INVOLVEMENT**

SWCA also provides community relations, facilitation, and public involvement services, either as part of the CEQA or NEPA process, or as stand-alone services. In today’s climate of environmental awareness, our clients deal with increasingly complex issues that require integration of science and planning, and often involve a variety of groups with diverse interests.

Our experts can help navigate the complexities of engaging the public. We can also prepare PowerPoint presentations and speaker outlines for planning staff to use during public hearings. Our project managers have facilitated public informational and scoping meetings, coordinated and participated in interagency and focused resource agency meetings, contributed to project outreach and workshop efforts, presented information and responded to questions during formal public hearings, and provided agency staff support by providing written and verbal responses to public comments during the hearing process. SWCA staff are here to help in any way to assist with providing information to the public for a robust and thoughtful public participation process.



*Public meeting hosted by SWCA for a CWPP in Santa Clara County, California*

**SUBCONSULTANTS**

**GEO ELEMENTS**



Geo Elements, LLC is a wildland fire and fuels consulting business. Based in Leeds, Utah, Carol Henson founded Geo Elements, LLC in October 2009, after retiring with almost 30 years of wildland fire and fuels management experience. Geo Elements consists of a team of wildland fire professionals who have extensive on-the-ground experience in all aspects of wildland fire and fuels management throughout the western United States. Their goal is to develop practical solutions for complex issues involving the wildfire environment. These solutions are based on science and the best available technology to assess each situation and address the specific needs of their clients.

**JOHN JUSTICE**

John Justice is the former Deputy Chief of Fire Prevention at the Santa Clara County Fire Department. He will serve as a local technical expert and community liaison, providing oversight, helping to identify partners and stakeholders, and providing quality control for the final VMP. A trusted figure in the community who has been directly involved with past fire prevention planning efforts in the area, Mr. Justice will help the SWCA team address community concerns and develop wildfire risk mitigation strategies within the town. SWCA worked closely with Mr. Justice in the development of the Santa Clara County CWPP in 2016.



## B. RELEVANT PROJECTS

### SWCA ENVIRONMENTAL CONSULTANTS

#### SANTA CLARA COUNTY COMMUNITY WILDFIRE PROTECTION PLAN

SANTA CLARA COUNTY FIRE DEPARTMENT	
<b>Contact:</b> Brian Glass, Assistant Fire Chief	<b>Phone:</b> Office: 408.378.4010
<b>Address:</b> 14700 Winchester Boulevard, Los Gatos, CA 95032	<b>Email:</b> <a href="mailto:brian.glass@sccfd.org">brian.glass@sccfd.org</a>



SWCA developed a CWPP and California Department of Forestry and Fire Protection (CAL FIRE) Unit Plan for Santa Clara County, and prepared a comprehensive risk/hazard analysis to identify priority areas for wildfire mitigation and prevention. We facilitated multiple community and agency workshops to gather input on fuel reduction and other mitigation projects across multiple jurisdictions. We also completed WUI assessments to analyze structural ignitability and evacuation concerns.

#### CITY OF HALF MOON BAY COASTAL VEGETATION MAINTENANCE SERVICES INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

CITY OF HALF MOON BAY	
<b>Contact:</b> Douglas Garrison, Senior Planner	<b>Phone:</b> 650.712.5836
<b>Address:</b> 501 Main Street, Half Moon Bay, CA 94019	<b>Email:</b> <a href="mailto:dgarrison@hmbcity.com">dgarrison@hmbcity.com</a>



SWCA is preparing an IS/MND pertaining to the issuance of a Coastal Development Permit to support vegetation maintenance (e.g., removing trees and brush) within PG&E’s existing rights-of-way (ROW) that contain a high-pressure natural gas transmission pipeline within Half Moon Bay. Vegetation maintenance activities will improve emergency access and allow for routine leak surveys, which are necessary to maintain natural gas pipeline integrity.

## GREENBELT FUEL REDUCTION INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

### CITY OF MONTEREY

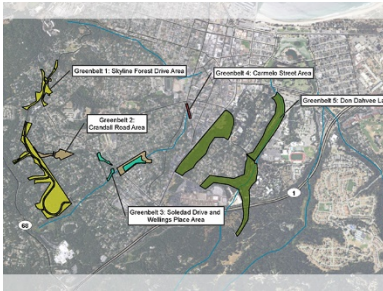
**Contact:** Kimberly Cole, Community Development Director\*

**Phone:** 831.646.3885

**Address:** 580 Pacific Street, Monterey, CA 93940

**Email:** [kcole@monterey.org](mailto:kcole@monterey.org)

\* Ms. Cole is listed here because the original contact, Elizabeth Caraker, is no long with the City of Monterey.



SWCA worked with the City of Monterey Public Works Department, Planning Department, and Fire Department to develop a fuel reduction plan that included methods for vegetation removal and thinning, elimination and disposal of removed fuel, access for crews and vehicles, staging areas, and environmental sensitivity training for crews. SWCA prepared an IS/MND, which included a comprehensive analysis of potential environmental effects and mitigation options and examination of project consistency with existing zoning, plans, and applicable land use controls.

## NATIONAL PARK SERVICE FMP NEPA BLANKET PURCHASE AGREEMENT

### NATIONAL PARK SERVICE

**Contact:** Becky Brooks, National Fire Planner, U.S. Fish and Wildlife & National Park Service

**Phone:** 208.387.5345

**Address:** National Interagency Fire Center, 3833 S. Development Avenue, Boise, ID 83705

**Email:** [becky\\_brooks@fws.gov](mailto:becky_brooks@fws.gov)



SWCA was selected to develop EAs in support of revised FMPs for multiple parks across the United States. The separate task orders span from 2012 to present and include the Appalachian National Scenic Trail, Jean Laffite National Historical Park and Preserve, 13 National Park Units of the Utah Group Parks, Salinas Pueblo Missions National Monument, Cumberland Gap National Historical Park, Chickamauga and Chattanooga National Military Park, Olympic National Park, and Devils Post Pile National Monument. SWCA's tasks included internal and public scoping, all NEPA compliance, and development of FMPs or Spatial FMPs that address all wildfire and fire prevention actions.

## PG&E GAS PIPELINE 306 VEGETATION MANAGEMENT PROJECT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

### COUNTY OF SAN LUIS OBISPO

**Contact:** Kate Shea, Supervising Planner

**Phone:** 805.781.4097

**Address:** Department of Planning and Building; 655 Capistrano Ave, Atascadero, CA 93422

**Email:** [kbshea@co.slo.ca.us](mailto:kbshea@co.slo.ca.us)



SWCA was retained by the County of San Luis Obispo in March 2018 to prepare an IS/MND for the PG&E Gas Pipeline 306 Vegetation Management Project. The project would allow PG&E to perform vegetation maintenance within PG&E's existing ROW in three areas that contained high-pressure natural gas pipelines. The project included a minor use/coastal development permit within the coastal zone of the county near the city of Morro Bay.

SWCA prepared an IS/MND analyzing information provided by PG&E and the County of San Luis Obispo, including coastal zone permit application materials, site plans, cultural and biological resources technical reports, previous agency consultation for the project, past studies

conducted at project sites, and other supporting document information. In coordination with the County of San Luis Obispo and consistent with CEQA requirements, the IS/MND and supporting analysis specifically addressed comments and questions previously raised by PG&E. SWCA completed the draft IS/MND, which was then reviewed and finalized by the County of San Luis Obispo.

This project demonstrated SWCA’s ability to work closely with the County of San Luis Obispo on key issues during the environmental review while addressing specific concerns by PG&E. This project was completed within the original budget and on schedule and received permit approval.

**PG&E GAS PIPELINE 300A/B VEGETATION MANAGEMENT PROJECT AND INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**

PACIFIC GAS & ELECTRIC COMPANY		
<b>Contact:</b>	Vick Germany, Senior Land Planner	<b>Phone:</b> 925.328.5176
<b>Address:</b>	6111 Bollinger Canyon Road, 3d Floor; Mail Code BR1Y3A; San Ramon, CA 94583	<b>Email:</b> <a href="mailto:V1G6@pge.com">V1G6@pge.com</a>



SWCA was retained by PG&E to provide biological documentation support and an IS/MND for the Line 300A/B Vegetation Management Project. The project included approximately 18 acres of vegetation removal along 25 miles of natural gas transmission line ROW in rural San Benito County. SWCA prepared an IS/MND on behalf of the California Department of Fish and Wildlife (CDFW), as the CEQA lead agency. As part of this process, SWCA worked very closely with PG&E and CDFW in the development of mitigation measures to reduce biological resources impacts yet allow construction to proceed as planned.

SWCA also prepared biological assessments for special-status species such as San Joaquin kit fox, California red-legged frog, California tiger salamander, San Joaquin antelope squirrel, golden eagle, and rare plants. Reports included suggestions on constructability to avoid potential sensitive resources, an analysis of recommended environmental permits, and suggestions for further biological studies and surveys.

The SWCA team prepared an early evaluation for San Joaquin kit fox (federally endangered and state threatened) conforming to the methods outlined by the U.S. Fish and Wildlife Service (USFWS). A desktop review was conducted to identify records of kit fox within 10 miles of the project. Reconnaissance-level field surveys were performed identifying vegetation communities and potential kit fox habitat features. Although no evidence of kit fox was observed during the reconnaissance surveys, it was determined that kit fox have potential to occur within the project area based on the presence of suitable habitat and known occurrences in the project vicinity. SWCA (in conjunction with Biosearch biologists) developed a feasible mitigation plan in order to avoid significant impacts to kit fox.

In addition to the biological constraints review and kit fox evaluation, SWCA assisted PG&E in the development of a CDFW Section 1600 Lake and Streambed Alteration Agreement (LSAA) and development of a mitigation plan for the LSAA.

## PG&E PIPELINE PATHWAYS VEGETATION MANAGEMENT PROGRAM ENVIRONMENTAL SUPPORT

### PACIFIC GAS & ELECTRIC COMPANY

**Contact:** Dustin Joseph, Supervisor for Gas Transmission Projects **Phone:** 925.415.6890  
**Address:** 6111 Bollinger Canyon Road, Third Floor, San Ramon, CA 94583 **Email:** [D1J4@pge.com](mailto:D1J4@pge.com)



SWCA was retained by PG&E to provide environmental support for PG&E’s Vegetation Management program throughout the PG&E Central Coast region. In support of the Vegetation Management program, SWCA has prepared CEQA documents and environmental permits (e.g., CDFW Section 1602), and provided agency consultation (e.g., USFWS, CDFW) regarding potential impacts to special-status species, wetlands, and sensitive habitats. SWCA has also provided project environmental review for over 50 Vegetation Management projects; each project included desktop review, field habitat assessments, and preparation of a constraints report detailing potential impacts to special-status species, an

assessment of potential resource permits required, and suggested avoidance and minimization measures (AMMs). SWCA provided environmental review for five projects in the Crystal Springs watershed, including impact assessments for special-status wildlife (e.g., California red-legged frog, San Francisco dusky-footed woodrat) and special-status plants (e.g., Marin western flax, fountain thistle, San Mateo thorn-mint). SWCA also conducted preconstruction special-status species surveys, including nesting bird surveys, rare plant surveys, and biological monitoring, during vegetation management activities.

These fast-paced projects required the effective management of a range of activities and workflows and the ability to accurately determine priorities against a large number of pending deliverables. SWCA was able to isolate items with long lead times and submit applications and requests in advance to keep the work progressing and the project on-schedule. SWCA was also able to scope as-needed work in units so that the client could accurately forecast expenditures.

## POPE AND HARDIN COUNTY COMMUNITY WILDFIRE PROTECTION PLANS

### POPE COUNTY AND HARDIN COUNTIES, ILLINOIS

**Contact:** Scott Crist, Fire Management Officer, USFS – Shawnee NF, IL **Phone:** 618.253.1032  
**Address:** Shawnee National Forest, 50 Highway 145 South, Harrisburg, IL 62946 **Email:** [scott.w.crist@usda.gov](mailto:scott.w.crist@usda.gov)



In 2016, SWCA completed a comprehensive CWPP to assist Pope County in reducing the risk of catastrophic wildfire to rural communities. Due to the success of that project, in 2019, SWCA was retained to complete the CWPP for adjacent Hardin County. These counties comprised large areas of National Forest with active forest management and prescribed fire

programs.

Each Core Team was made up of a wide variety of stakeholders, including federal, state, and local agencies and private landowners. Creating the CWPPs involved a collaborative effort that identified and

**TESTIMONIAL**

*“Victoria Amato and the entire [SWCA] team provided excellent service. The team was professional and timely. The final plan looks great!”*

Sarah Farmer  
Southeastern Illinois Regional Planning and  
Development Commission  
Popo County CWPP, November 2016



prioritized areas for hazardous fuels reduction and recommended realistic measures that homeowners and communities could take to reduce the ignitability of structures throughout the area. During the planning process, SWCA facilitated a series of public meetings to gain valuable insight on each community’s needs. Existing GIS datasets were integrated to develop a risk assessment framework for the vegetated lands and developed communities within the project areas. The CWPPs were developed to align with the goals of the National Cohesive Wildland Fire Management Strategy (CWS). Our approach provided Pope and Hardin Counties with effective CWPPs that have already been used to secure funding for home hazard assessments, vegetation management projects and resources to bolster wildfire response.

## VALENCIA COUNTY COMMUNITY WILDFIRE PROTECTION PLAN

VALENCIA COUNTY			
<b>Contact:</b>	Rob Barr, Wildland Captain, Valencia County, New Mexico	<b>Phone:</b>	505.620.6045
<b>Address:</b>	444 Luna Ave SE, Los Lunas, NM 87031	<b>Email:</b>	<a href="mailto:rob.barr@co.valencia.nm.us">rob.barr@co.valencia.nm.us</a>



SWCA worked with the communities of Valencia County, New Mexico, to develop a County-level CWPP that would serve to protect the people, infrastructure, and natural resources of the Rio Grande Valley, including the municipalities of Los Lunas and Belen and the Pueblo of Isleta, from catastrophic wildfire. The CWPP involved considerable public input through organized meetings and attendance at public events.

Work on the Valencia County CWPP integrated existing GIS datasets to develop a risk assessment framework for the forested, agricultural, riparian, and developed communities within the project area.

The Core Team was made up of a wide variety of stakeholders, including federal, state, and local agencies; soil and water conservation districts; environmental advocacy groups; homeowner associations; tribes; and private landowners. Valencia County has successfully used the CWPP to secure funding to develop a community-focused homeowner guide, expand their wildfire program, and initiate a program for individual wildfire hazard assessments. SWCA was retained to update the Valencia County CWPP in 2017/2018, which was revised to align with the goals of the CWS.

**TESTIMONIAL**

“I would recommend SWCA for developing a working document you can use to meet additional goals and needs in your community regarding WUI issues.”

*Rob Barr, Wildland Captain, Valencia County  
Fire Department,  
Valencia County CWPP 2012 and  
2017 Update*

## TORRANCE COUNTY AND CLAUNCH-PINTO SOIL WATER CONSERVANCY DISTRICT COMMUNITY WILDFIRE PROTECTION PLAN UPDATES

### TORRANCE COUNTY AND CLAUNCH-PINTO SOIL WATER CONSERVANCY DISTRICT

**Contact:** Dierdre Tarr, District Manager, Claunch Pinto Soil and Water Conservation District, Torrance County NM **Phone:** 505.847.2243  
**Address:** 1206 South Highway 55, PO Box 129, Mountainair, NM 87036 **Email:** [dierdre.tarr@nm.nacdnet.net](mailto:dierdre.tarr@nm.nacdnet.net)



Our team prepared two comprehensive collaborative plans that assisted government agencies and communities on the eastern slope of the Manzano Mountains and rural lowlands of Torrance County, New Mexico. The plans included both television and newspaper media exposure and involved a tight, rigorous schedule. This was a controversial planning effort for the community and was a collaborative process.

The CWPP received considerable community and Core Team involvement, with more than 50 people included in the Core Team, more than 100 residents in attendance at public meetings, and more than 150 surveys submitted. The plan also provided the involved communities and the Claunch-Pinto Soil and Water Conservation District with the opportunity to receive future funding for wildfire and WUI mitigation, covering thousands of acres of high-risk areas. This project demonstrates our experience with organizing and facilitating consensus-based planning with diverse stakeholders. SWCA was retained to complete the 5-year CWPP updates.

The Torrance County and Claunch-Pinto Soil Water Conservancy District CWPP that SWCA produced is included in the National Database of State and Local Wildfire Hazard Mitigation Programs as an exemplary CWPP.

**TESTIMONIAL**

“The [CWPP] meetings were not without controversy, but the SWCA staff handled these meetings very professionally. We received excellent public feedback from all of these meetings.”

*Dierdre Tarr, District Manager,  
Claunch-Pinto Soil and Water  
Conservation District,  
Claunch-Pinto CWPP 2008 and 2016 Update*

## AMERICAN RIVER PARKWAY NATURAL RESOURCES MANAGEMENT PLAN

### SACRAMENTO COUNTY REGIONAL PARKS

**Contact:** Liz Bellas, Director **Phone:** 916.875.5925  
**Address:** 10361 Rockingham Drive, Suite 100, Sacramento, CA 95827 **Email:** [bellase@saccounty.net](mailto:bellase@saccounty.net)



Image courtesy of pxhere.com

Prior to joining SWCA, Mark Brandi and Laura Moran helped the County of Sacramento Regional Parks Department to develop a comprehensive Natural Resources Management Plan (NRMP) for the entire 23-mile American River Parkway in Sacramento County.

Development of the NRMP included extensive data acquisition and review, development of a comprehensive GIS database to track and update the spatial distribution of resources along the river, and mitigation measures to reduce potential impacts to the regionally significant resources of the parkway, including recreation overuse and wildfire risks. Our staff also worked with the Parks Department to streamline the NEPA/CEQA environmental review and permitting process, and to develop a robust public outreach process to engage the local community and stakeholders in the preservation and enhancement of the



parkway. The NRMP document was organized around Biological Resources, Cultural Resources, and Human Resources, and was closely coordinated with other concurrent planning efforts along the river.

## BEAR CREEK REDWOODS VEGETATION MANAGEMENT PLANS

MIDPENINSULA REGIONAL OPEN SPACE DISTRICT			
<b>Contact:</b>	Coty Sifuentes-Winter, Integrated Pest Management Coordinator	<b>Phone:</b>	650.691.1200
<b>Address:</b>	330 Distel Circle, Los Altos, CA 94022	<b>Email:</b>	csifuentes@openspace.org



Image by Flickr user Mahmoud Hashemi

Prior to joining SWCA, members of our team, including Mr. Brandi, Ms. Moran, and Lauren Huff, assisted the Midpeninsula Regional Open Space District in undertaking planning studies to open the Bear Creek Redwoods Open Space Preserve just outside of Los Gatos. This work included mapping infestations of invasive plants that would need to be controlled before the preserve was opened and devising an Integrated Pest Management Plan to establish long-term management strategies to control nonnative species and limit fire danger within the preserve. The mapping and Integrated Pest Management (IPM) support were successfully completed by our staff under tight schedule and budget constraints. In addition, our staff assisted the District with a western pond turtle Mitigation and

Management Plan to protect important breeding and nesting habitat adjacent to planned public access areas within the preserve.

## OCEANO DUNES HABITAT CONSERVATION PLAN

<b>Contact:</b>	Ronnie Glick, Environmental Scientist, California State Parks	<b>Phone:</b>	(805) 773-7170
<b>Address:</b>	340 James Way, Suite 270, Pismo Beach, CA 93449-2894	<b>Email:</b>	ronnie.glick@parks.ca.gov



Prior to joining SWCA, members of our team, including Ms. Moran and Ms. Huff, worked with the California Department of Parks and Recreation (State Parks) to formulate a strategy to resolve conflicts between the presence of endangered species and recreation within the approximately 5,000-acre Oceano Dunes District in San Luis Obispo County. A Habitat Conservation Plan (HCP) and NEPA/CEQA document were chosen as the best permitting vehicle. The District’s park encompasses a large section of the central California coastline, watersheds, and upland terrestrial environments. State Parks’ mission is to provide protection for California’s natural resources, while providing recreational access to the parks. The

HCP balances these two objectives by developing sound management strategies for the covered species, including the western snowy plover, California least tern, California red-legged frog, tidewater goby, and six listed plant species. Services provided include habitat conservation planning at the federal and state level, NEPA/CEQA environmental permitting, and public outreach. The project requires ongoing consultation with the USFWS and CDFW.

## GEO ELEMENTS

Geo Elements specializes in the preparation of CWPPs, Wildland Fire Assessments, Wildland Fire Decision Support Systems (WFDSSs), wildland fire and fuels mitigation strategy development, and development of Cooperative Fire Protection Agreements at the state and local levels. The following includes relevant deliverables and services that members of the Geo Elements, LLC team have provided:

- City of Santa Rosa CWPP (submitted draft CWPP, awaiting approval)
- Consultation with Conejo Recreation and Parks Department on fire recovery and rehabilitation efforts, Thousand Oaks, CA (January 2019)
- A Socio-Ecological Approach to Mitigating Wildfire Vulnerability in the Wildland Urban Interface: A Case Study from the 2017 Thomas Fire, Fire 2019
- A Retrospective Study of Montecito Fire Protection District's Wildland Fire Program during the 2017 Thomas Fire and a CWPP Amendment, Montecito Fire Protection District, CA (October 2018/March 2019)
- Wildland fire technical analysis for the Eastern Goleta Valley/San Marcos Pass Mountainous Communities Community Wildfire Protection Plan, Santa Barbara County, CA (March 2019)
- Fire and Weather Analyses for Fire Danger Operating Plans, California State Office, Bureau of Land Management (June 2016)
- City of Dunsmuir Community Wildfire Protection Plan, Dunsmuir, CA (May 2016)
- Montecito Community Wildfire Protection Plan (February 2016)
- Proposed Coolwater-Lugo Transmission Line, Wildland Fire Assessment—Aspen Environmental Group (2015)
- City of La Verne Community Wildfire Protection Plan (February 2014)
- Management Environmental Review Project Description, City of Goleta Community Wildfire Protection Plan and Butterfly Habitat Plan (October 2013)
- Barry Point Fire Retrospective and Lessons Learned – Winema-Fremont National Forest (February 2013)
- Sevier County Community Wildfire Protection Plans (4) – Acord Lake/Salina Creek, Monroe Mtn/Cove Mtn, Fishlake Basin, and Sevier/Clear Creek/Pahvant (August 2012)
- Revision of Santa Monica Mountain Communities Wildfire Protection Plan (April 2012)
- City of Goleta Community Wildfire Protection Plan (March 2012)
- A Synthesis of Fuel Moisture Collection Methods and Equipment: a Desk and Field Guide, Authors Sue Zahn and Carol Henson (March 2011)
- Wildland Fire Hazard Assessments for Castle Crags State Park and McArthur-Burney Falls State Park, California State Parks and Recreation (March 2010)
- Integrated Wildland Fire Management Plan for Nellis Air Force Base and Nevada Test & Training Range (August 2009)
- A Fire Behavior Analysis to Evaluate Clearance Requirements Around Structures in Ventura County, CA, Poster Session, 2nd Fire Behavior and Fuels Conference (March 2007)
- Validation of 100-Foot Clearance Requirement as it relates to Firefighter Safety, Ventura County Fire Department (2006)
- Rapid-Response Fire Behavior Research and Real-Time Monitoring, Fire Management Today (Summer 2005)
- Real-Time Evaluation of Effects of Fuel-Treatments and Other Previous Land Management Activities on Fire Behavior, Joint Fire Sciences, co-author and fire operations lead (September 2004)
- Santa Anita Canyon Fire Behavior Assessment, Angeles National Forest (September 2004)
- San Bernardino National Forest Fire Behavior and Fuels Assessments, multiple communities within and adjacent to the forest (2003 and 2004)
- Wildland Fuels Management Strategy, Shasta-Trinity National Forest's Forest Fire Management Plan
- Hazard/Risk Assessment for the Trinity Alps Wilderness Fire Restriction Policy, Shasta Trinity National Forest

## C. RESUMES

SWCA's **Project Manager Mark Brandi** has nearly 20 years of experience in environmental consulting and landscape architecture and specializes in balancing natural resources with built environments. Mr. Brandi will be supported by **Deputy Project Manager Lauren Huff** and **Natural Resources Lead Laura Moran**, who has decades of experience managing CEQA and NEPA projects for varying agencies throughout California.

SWCA's team also includes a fire resources team including **Fire Ecologists Vicky Amato**—who has a diverse background in fire planning, having worked as Project Manager on the Santa Clara County CWPP and numerous hazardous fuels reduction projects across the West—and **Ari Porter**—who has authored sections for CWPPs and has extensive experience with statistical modeling, geospatial modeling, and analysis using GIS. Lending her experience to the team is **Fire Behavior Modeling Specialist Anne Russell**, the lead GIS specialist for the Santa Clara County CWPP, where she mapped the entire project area and maintained spatial datasets used for analyses and reporting. Ms. Russell has produced wildfire risk assessments for over 30 CWPPs across the country. We also have an International Society of Arboriculture (ISA)-certified **Arborist Erich Schickenberg** on staff, whose experience includes special-status plant surveys, native seed collection, restoration planting, and vegetation community mapping. **Cultural Resources Lead Leroy Laurie** will oversee the cultural resources records review and will contribute to the NEPA/CEQA analysis.

SWCA is joined by two teaming partners who have a strong local presence and extensive experience with fire and fuels management programs—**Carol Henson of Geo Elements, LLC**, and former **Deputy Chief of Fire Prevention for Santa Clara County John Justice**. Ms. Henson has extensive experience in authoring CWPPs and FMPs, providing public prevention education, developing hazardous fuel treatment strategies, writing burn plans, implementing fuel treatment projects, and providing wildland fire and fuels training. Mr. Justice is a prominent figure in the local community and will assist the SWCA team in addressing community concerns and developing wildfire risk mitigation strategies within the town.

Staff resumes are included as **Appendix A**.

### C-1. PROJECT LEAD AND AVAILABILITY

#### MARK BRANDI, PROJECT MANAGER

Mr. Brandi is a landscape architect and restoration ecologist with nearly two decades of experience in landscape architecture and environmental consulting. His professional practice has focused on balancing conservation and development as well as designing landscapes in the context of surrounding ecological systems. Mr. Brandi's primary responsibilities include project management, public outreach, planning and design, and environmental permitting for a wide array of landscape architecture and environmental design projects. These projects include the restoration and management of landscapes and ecosystems, the design of parks and open spaces, and the integration of public access improvements into sensitive habitats. His recent wildland management and fire prevention planning work has included the development of an NRMP for the American River Parkway in Sacramento County, an Invasive Species and Integrated Pest Management Plan for the Bear Creek Redwoods Open Space Preserve outside of Los Gatos, and a firesafe landscape plan for the Lake Chabot Regional Park Campus Modernization Project in Castro Valley.

In addition to our highly qualified project manager, SWCA has more than 30 employees in the Bay Area and 175 employees across California who can mobilize quickly to provide additional services as needed.

**Table 1. Staff Availability.** Given SWCA’s experience, we feel confident that estimated allocations of staff are as accurate as possible and demonstrate our commitment to completion of a successful project.

STAFF MEMBER AND TITLE	% AVAILABILITY
Megan Peterson, Principal-in-Charge / Quality Control/Quality Assurance (QA/QC)	10%
Mark Brandi, Project Manager	60%
Lauren Huff, Deputy Project Manager	60%
Vicky Amato, Fire Ecologist	40%
Ariana Porter, Fire Ecologist	50%
Anne Russell, Fire Behavior Modeling Specialist	20%
Laura Moran, Natural Resource Team Lead	30%
Jessie Henderson-McBean, Biologist	60%
Erich Schickenberg, Arborist	60%
Leroy Laurie, Cultural Resources Lead	15%
Juliet Bolding, Environmental Planner	60%
Anna Belk, GIS Specialist	50%
Jennifer Torre, Project Controller	10%
Carol Henson, Fuel Management Specialist   <b>Geo Elements</b>	40%
John Justice, Local Technical Expert   <b>Former Deputy Chief of Fire Prevention for Santa Clara County</b>	40%

## D-1–5. PROJECT APPROACH

A significant portion of Los Gatos falls within the WUI area; therefore, the Town is seeking a qualified environmental services firm to advance the Town’s efforts in reducing wildfire hazards by preparing a VMP that outlines a framework for managing hazardous fuel loads and vegetation. Given the ongoing wildfire-related risks facing California, SWCA is acutely interested in assisting the Town with the preparation of their VMP, NEPA/CEQA environmental review, and associated stakeholder and public outreach efforts for this very important wildfire project. SWCA will assist the Town in developing “project-ready” prescriptions for wildfire risk reduction around the WUI interface. Having developed numerous CWPPs, including the Santa Clara County CWPP, our SWCA team is well equipped to help the Town with the development of a VMP that will prioritize the treatment of wildfire hazard and identify the needed mitigation measures to protect environmental resources. Through a collaborative process that engages the public and stakeholders, the SWCA team will assess and assign priorities for fuel reduction and provide the Town with projects and prescriptions that are NEPA and CEQA compliant.

## D-0. ROADWAY VEGETATION MANAGEMENT

In order to address the immediate needs of the Town and begin vegetation management as soon as possible before the peak fire season of 2020, SWCA will work with the Parks and Public Works Department to expedite and fast-track vegetation maintenance along the WUI roadways identified on Figure 2 of the Request for Proposals. These roadways were identified as being of ‘High Concern’ to hillside residents due to the potential for entrapment during an emergency evacuation in the event of a wildfire in the area.

This initial phase of the project will incorporate various aspects of the subsequent phases of the project described below. SWCA will therefore make every effort to complete this initial phase of the project under the existing cost proposal for the overall project, but will notify the Town if any out of scope work will require a budget augmentation to complete the following tasks:

- Conduct a preliminary review of the Town roadways and identify primary and secondary evacuation routes and other priority locations for vegetation maintenance and clearing. This effort may include an initial site visit by our biologists and arborists to evaluate the current conditions along these high priority roadways.
- Develop a concise project description of the proposed roadway work and evaluate the potential for the work to qualify for a Statutory Exemption (SE) / Categorical Exemption (CE) under the California Environmental Quality Act. Given that FEMA funding will not be used for the roadway work, it is assumed that this initial work will not require NEPA clearance.
- Prepare and submit a concise memorandum that describes how the roadway work qualifies for the SE/CE and an associated Notice of Exemption (NOE) under CEQA. This documentation will establish that no further environmental review is required for the immediate vegetation management along the Town roadways. If the Town chooses to file the NOE it will be subject to a 30-day challenge period, though the Town can choose to proceed with the vegetation management during this timeframe at their own discretion. Nesting birds surveys are not currently included in this Scope of Work, but can be covered under a budget augmentation if the roadway work begins prior to the end of nesting bird season in September.
- Conduct targeted outreach to residents along priority roadways, including the preparation of a public notice describing the roadway work and soliciting feedback about proposed treatment measures.
- Work with the Town to prepare a “Roadway Treatment and Maintenance Plan,” a concise treatment and maintenance plan for roadway vegetation work to guide vegetation management activities. This plan will later be incorporated into the overall Vegetation management Plan for the Town.
- Assist the Town with the development of a Request for Proposals (RFP) to select a Contractor to perform the roadway vegetation management work utilizing the Roadway Treatment and Maintenance Plan as specifications within the RFP.

## D-1. PROJECT BACKGROUND AND COMPONENTS

### D-1.1. REVIEW EXISTING OPEN SPACE AND DEVELOPED PARKLAND

#### *Existing Data Review and Kick-off Meeting*

Once the contract is in place, SWCA will review pertinent Town ordinances, policies, plans, and technical studies relevant to the project. SWCA will also review relevant documents and technical studies associated with the Santa Clara County CWPP, including Annex 9 of the document, which includes the town.

SWCA team staff will participate with the Town in one project kick-off meeting. During the kick-off meeting, SWCA team staff will discuss with the Town the goals and objectives for the project, strategies to streamline the project schedule, and the Town’s current maintenance practices (if any). In addition, SWCA understands that early public outreach efforts within the town have been conducted and have shown that the public is very concerned about wildlife risk, especially related to evacuation routes on roads within the town. As a result, SWCA staff will also discuss these public outreach efforts with the Town in more detail, including public input provided on the project to date and critical issues to address as part of the VMP and the NEPA/CEQA process. This task includes attendance by SWCA Natural Resource Team Lead Ms. Moran, SWCA Project Manager Mr. Brandi, SWCA Deputy Project Manager Ms. Huff, Geo



Elements Fuel Management Specialist Ms. Henson, and Deputy Chief of Fire Prevention for Santa Clara County Mr. Justice.

### **Assumptions**

- SWCA assumes the kick-off meeting will occur via conference call due to the most recent coronavirus disease 2019 (COVID-19) guidance for physical distancing. However, we will carefully monitor new guidance daily to determine if a kick-off meeting at the project site is feasible. The scope can be amended to accommodate an on-site kick-off meeting if current COVID-19 guidance permits.
- SWCA assumes no more than 4 hours will be required for the kick-off meeting.

### ***Biological Resources Literature Review***

In order to facilitate the development of the VMP and the NEPA/CEQA documents, SWCA will conduct a review of the existing biological resources in the vicinity of the project. An SWCA biologist will review databases and literature that provide information pertaining to sensitive natural resources that could occur on or in the immediate vicinity of the project. SWCA will review resource occurrence records contained within the California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Rare Plant Inventory for records of species within the project vicinity. Additional database and mapping resources that will be reviewed will include USFWS Information for Planning and Consultation (IPaC) system and critical habitat maps, U.S. Geological Survey (USGS) topographic quadrangle maps, aerial imagery, vegetation and land use mapping, USFWS National Wetland Inventory (NWI) data, surface water data, and U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) Soil Surveys.

### ***Cultural Resources Records Search***

To support the findings of the NEPA/CEQA documentation, SWCA will review the existing cultural resources in the vicinity of the project. SWCA will conduct a California Historical Resources Information System (CHRIS) records search of the project area and up to a 0.5-mile buffer at the Northwest Information Center (NWIC) located at Sonoma State University, which houses cultural resources records for Santa Clara County. The primary purpose of the CHRIS records search is to identify any previously recorded cultural resources known to exist within or adjacent to the project area. In addition to the cultural resources inventory records and reports, an examination will be made of historic maps, Determinations of Eligibility listings, the Office of Historic Preservation (OHP)-prepared Historic Property Data File, and any previously conducted cultural studies within the Area of Potential Effects (APE)/project area. The Historic Property Data File contains listings for the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), State Historical Landmarks, local eligibility listings, and California Points of Historical Interest. The records search will also reveal the nature and extent of cultural resources work previously conducted within the project area.

### **Assumptions**

- The potential for cultural resources in the project area is low; therefore, no cultural resources pedestrian surveys will be completed as part of this task.
- A Sacred Lands File Search at the California Native American Heritage Commission (NAHC) will not be required as part of this task due to the low potential for cultural resources in the project area. If this is determined to be necessary during the cultural records search, it can be included under an amended budget.
- SWCA field staff will have full right-of-entry/access to all survey areas.

### ***Reconnaissance Survey***

Following the data review, the SWCA team will conduct a reconnaissance-level biological survey in the project area. During the survey effort, an SWCA biologist will map plant communities and habitats, map potentially jurisdictional areas (if present), and identify special-status plant and wildlife species occurrences and suitable habitat, if observed. The location, size, and distribution of resources observed will be mapped using our handheld submeter-accurate



Trimble GPS receivers. As part of this survey, additional SWCA staff will identify fuel characteristics to assign fuel models, as well as document terrain features that could create potentially hazardous conditions in the project area, in the event of a wildfire ignition.

### **Assumptions**

- SWCA assumes up to two SWCA team members will conduct the field survey and the survey will take up to six 8-hour days.
- SWCA assumes the project will not change after initiation of work.
- SWCA field staff will have full right-of-entry/access to all survey areas.
- No jurisdictional delineations will be completed as part of this task.
- No protocol-level species surveys or rare plant surveys will occur under this task. These can be provided under an amended budget.

### ***Cultural Pedestrian Survey (Optional)***

If determined to be necessary during the desktop review, SWCA will conduct a cultural resources survey of the direct APE/project area. During the field survey, SWCA archaeologists will conduct an intensive-level survey using pedestrian transects spaced at intervals of 15 meters, covering all exposed portions of the APE/project area. Transect accuracy will be maintained through use of maps, compasses, and handheld submeter-accurate Trimble GPS receivers. In the event cultural resources are discovered, the discoveries will be photo-documented and recorded, and their locations will be mapped using a GPS unit. No artifacts or other materials will be collected during the survey.

## **D-1.2. DEVELOP VEGETATION MANAGEMENT PLAN**

### ***Hazard Assessment Methodology***

SWCA developed the wildfire hazard-risk assessment for the Santa Clara County CWPP utilizing robust fire modeling techniques. Annex 9 of the Santa Clara County CWPP includes Los Gatos. Since the time the CWPP was prepared, the fuel conditions in the project area may have changed and therefore SWCA will re-run our fire behavior modeling (utilizing the IFTDSS) to assess potential fire behavior under existing conditions and supplement the earlier risk assessment. In addition, the SWCA team will conduct a GIS analysis to evaluate terrain features, land ownership, ingress and egress, and the area of land within 100 and 300 feet of existing structures (the degree of defensible space). This analysis will identify areas that may be subject to extreme fire behavior when considering weather, fuels, and terrain variables. This assessment will allow for the prioritization of vegetation treatment areas within the project area.

## Vegetation Management Plan



*Prescribed fire being used to reduce grass loads on public open space land.*

The key components to successfully preparing a VMP for the Town will include understanding the existing conditions in the project area (e.g., types and amount of vegetation, adjacency to residential properties, topography, biological resources), understanding the hazard risk in the project area, and engaging the local community for input on their primary concerns. Based on these elements, SWCA, will develop a VMP for the Town to assist them with their efforts to reduce fire hazards within the project area. Given their unique experience in wildland fire, fuels, and risk assessment, SWCA has teamed with Geo Elements to assist with developing a portion of the VMP. We have also teamed with Mr. Justice, the former Deputy Chief of Fire Prevention for Santa Clara County, to provide additional review of the VMP. The VMP will serve to reduce fuel loads and fire ladders within areas that are identified as having

characteristics that increase the risk of wildfire (e.g., highly flammable vegetation, duff, downed trees). The VMP will provide a framework for managing the fuel loads in the project area based on the existing field conditions and the principles of vegetation management for fire hazard reduction. The VMP will identify priority treatment areas based on factors such as proximity to structures, areas along critical access/egress routes, and areas subject to increased ignition potential. The VMP will also identify the best management practices (BMPs) to be implemented during vegetation management activities to reduce or avoid impacts to environmental resources (e.g., biological resources, cultural resources, sensitive receptors) present in the area. The BMPs will, to the extent feasible, be selected to ensure the project impacts can be avoided and/or minimized in order to reduce the costs and time associated with preparing the NEPA/CEQA documents and ensure the project will not require the preparation of an EIS and/or EIR. The VMP will include, at a minimum, the following information:

- An overview and characteristics of each location.
- A plan for ladder fuel reduction.
- A plan for fuel load reduction.
- Specific direction for tree canopy reductions, where necessary.
- Specific plans for addressing invasive species, including plans for removal and for prevention of regrowth.
- Specific strategies to ensure habitat retention.
- Recommendations and options for vegetation removal, including the use of mechanical tools, grazing, and herbicides.
- Recommended methods for fuel disposal, including on-site options and off-site removal.
- Specific plans for soil stabilization to avoid runoff into waterways.
- Recommendations for introduction of native tree and shrub plantings, including recommendations for care.
- Specifications for avoiding introduction of non-native species and disease.
- Identification of optimal work schedule for actual vegetation removal considering environmental constraints.

### D-1.3. COMMUNITY ENGAGEMENT

With this project, it will be important for the Town to balance the need for reduced wildfire risk in the project area and protect private property with the desire to protect endangered or sensitive species and other flora and fauna and their habitats and to preserve the aesthetic appearance of the Town-owned open space areas. In addition, early public outreach efforts in the town have indicated that the community is very concerned about wildlife risk, especially related to evacuation routes on roads within the town, and about the schedule for project implementation. For this reason, the

Town will need to foster community input and buy-in for the project. The target audience is expected to include Town and Santa Clara County elected officials, local stakeholder organizations, landowners, immediate neighbors, and general public. SWCA has proven success in building community consensus for wildfire mitigation using a robust public involvement strategy that engages the community and stakeholders in project development. In consultation with the Town, SWCA will identify the target audience and engage interested parties through stakeholder meetings that will be open to the public and advertised using a range of media. SWCA has teamed with Mr. Justice, the former Deputy Chief of Fire Prevention for Santa Clara County, to provide oversight throughout the public outreach process. The Town will benefit from our collaboration with Mr. Justice and from our key staff being located locally and available at short notice.

Due to the proposed timing of the project, SWCA will work with the Town to determine alternatives to conducting in-person community engagement, which may conflict with ongoing COVID-19 meeting/gathering restrictions. SWCA is currently hosting webinar-type Town Council and other public meetings for our clients during the pandemic and can easily convert any of the outreach options listed below to this format. Technology tools we have available include creating a dedicated virtual environment for public engagement, providing secure webinar tools for virtual meetings, creating question and answer (Q&A) forums, and ensuring accessibility with features like live closed captioning during virtual meetings, among others.

It is anticipated that public outreach will include, at a minimum, the following items:

- Posting detailed information on the Town’s website.
- Posting information at Town-owned open space trailheads.
- Direct mailing notification and outreach pieces to residents.
- Presenting at community and public meetings.
- Discussing the project at Town Council Meetings.



*Public meeting hosted by SWCA for a CWPP in Santa Clara County.*

***Engagement Materials***

The SWCA team will coordinate with the Town to develop materials/notices, such as meeting notices, postcards, posters for trailheads, and project ideas, for public comment input. All materials will be suitable for posting on the Town’s website and various other media outlets.

***Community/Stakeholder Meetings***

The SWCA team will assist the Town in facilitating at least two stakeholder meetings to gather comments on the project. We propose to gather the stakeholders for a kick-off meeting to request their participation and data that will facilitate preparation of the VMP. Additional meetings may solicit project ideas, present the draft suite of projects and request prioritization of those projects, and/or present the Final VMP and request support of the required approval bodies. We will provide teleconferencing options to facilitate the greatest attendance for those partners who are unable to attend in person.

***Town Council Meeting***

The SWCA team will assist the Town in facilitating one Town Council meeting to gather comments on the project and present the VMP goals and objectives.

### **Online Media**

Given the popularity of online social media, SWCA will develop a Facebook profile page to include background information on the project and provide a forum for discussion and questions related to the VMP.

### **Online Survey (Optional)**

Given the potential for ongoing restrictions on gatherings associated with the COVID-19 pandemic, SWCA can also develop an online survey for town residents to provide feedback on the VMP in a virtual format. This survey may include map-based technology that allows residents to identify specific locations in the town that are of particular concern to be addressed in the planning process. While this task is not currently included in this Scope of Work, it can be added to the community engagement plan as needed under a separate scope and fee.

### **Assumptions**

- The Town will be responsible for printing, developing the mailing list, postage, and mailing all notification postcards.
- The Town will be responsible for printing the posters and placing them in the field.
- The Town will take the lead on the presentations associated with the stakeholder and Town Council meetings and SWCA will provide necessary support.
- Only SWCA two team members will attend each meeting.
- SWCA assumes that no more than 2 hours will be required to attend each meeting.

## **D-1.4. NEPA/CEQA DOCUMENTS**

The scope of work associated with the NEPA and CEQA documents is provided under Section D-3.

## **D-1.5. PROJECT COST ESTIMATES AND PHASING SCHEDULE FOR MITIGATION**

Once the VMP has been accepted by the Town, the SWCA team will prepare a detailed work plan and budget broken down by task and phase for each fiscal year to implement the VMP and any project mitigation required. Our arborist, fire hazard experts, and natural resource specialists will build off of the recommendations in the VMP to rank and prioritize fuel reduction activities within the parameters of seasonal habitat restrictions, access, proximity to housing, etc. We will use this information to compile a Multi-Criteria Decision Analysis (MCDA) matrix that identifies multiple project planning criteria, the proposed phasing schedule and associated costs. The MCDA matrix will assist the Town with scheduling and budgeting for vegetation management/fuel reduction in 2020 and into the future.

## **D-1.6. IMPLEMENTATION RECOMMENDATIONS**

Once the VMP and the NEPA/CEQA documents have been completed, SWCA will work with Geo Elements to identify regulatory permitting, including, but not limited to, wildlife, aquatic, and encroachment permits, that may be required to implement the project. As part of this process, we will develop a clear path and timeline to secure any necessary permits. Our team will also support the development of any requests for proposals (RFPs) for implementation of the project by providing guidance on specifications (e.g., permit requirements, environmental monitoring, timing of implementation) for contractual services to conduct vegetation management activities.

### D-1.7. DEVELOP ONGOING MAINTENANCE PLAN

Vegetation management and maintenance for fire hazard reduction will be an ongoing, cyclical process. The SWCA team will be prepare a Maintenance Plan based on the dominant vegetation community/land over type (e.g., grassland, brush/scrub, tree/woodland, invasive species). This approach allows vegetation management techniques outlined in the VMP to be selected based on the needs of each management area. The Maintenance Plan will identify specific treatment standards/tasks for each vegetation community/land cover type. Certain vegetation community/land cover types within the project area will not present a wildfire hazard due to high moisture (e.g., wetland) or other noncombustible conditions like impervious surfaces (e.g., urban) and will not be included in the Maintenance Plan. Due to the dynamic nature of vegetation, especially within the project area, maintenance and routine treatment of vegetation is anticipated to be recommended on an annual basis in order to appropriately manage for wildfire hazards. The Maintenance Plan will also include a prioritization of treatment areas, an estimate of labor hours required to achieve each treatment task, and a detailed schedule for the timing of each treatment task during the year.

#### TESTIMONIAL

“We found SWCA to be a very professional company which accomplished the project on time and within budget, with their overall work quality exceeding our expectations.”

*John Pavacic, Executive Director Central Pine Barrens Joint Planning and Policy Commission. Ridge-Manorville-Calverton CWPP, August 2016*

## D-2. LOS GATOS OPEN SPACE MAPS AND TARGET ROADWAYS

The VMP will cover the town’s 234 acres of open space and undeveloped parks and 11 miles of hillside roadways, as shown in Attachment C of the RFP.

## D-3. ENVIRONMENTAL REVIEW AND CLEARANCE METHODOLOGY

### D-3.1 PROJECT DESCRIPTION

Early development of a project description is the key to a streamlined environmental review process that meets client schedule and budget goals. SWCA will use information collected and developed in D-1 and other data gathered to formulate an accurate description of the project to support the NEPA/CEQA documents. SWCA will also work closely with the Town to develop a project description that accurately and clearly describes the proposed project and provides a single consistent narrative and quantitative basis for analysis of all environmental topics. SWCA will ensure that data requests to the Town are made at an early stage in the process to ensure the NEPA/CEQA processes remain on schedule. The project description will, at a minimum, including the project’s location and objectives, existing conditions, and implementation/maintenance requirements that have either temporary or permanent impacts. In an effort to reduce the level of NEPA/CEQA analysis required, the project description will include the BMPs, including those provided in the VMP, that avoid and/or minimize impacts to environmental resources. If feasible, additional BMPs will be added to the project description to avoid the need for any mitigation for environmental resource impacts. The project description will be supported with maps, photos, and graphics as appropriate. SWCA will submit the Draft Project Description to the Town (electronic version) for review and comment prior to finalizing the Project Description for incorporation into the NEPA/CEQA documents.

### D-3.2 NEPA DOCUMENTATION

It is SWCA’s understanding that the Town applied for federal financial assistance for the project through Federal Emergency Management Agency (FEMA). As a federal agency, FEMA is required to comply with NEPA. Therefore, as part of this task, SWCA will evaluate the impacts of the proposed project on the human environment in accordance with NEPA. As a first step to evaluating the appropriate NEPA document, SWCA will evaluate the possibility of



obtaining a Categorical Exclusion. FEMA has specific Categorical Exclusions under Executive Order 13807. A Categorical Exclusion may also be obtained by incorporating BMPs instead of mitigation, as described in the Project Description task above, to ensure the project will not have a significant effect on the human environment. If these investigations result in a Categorical Exclusion determination, SWCA will proceed with the preparation of a memo report to provide Categorical Exclusion documentation.

If a Categorical Exclusion is not appropriate for the project, SWCA understands that FEMA has prepared the Final Programmatic Environmental Assessment (PEA) for Typical Recurring Actions Resulting from Flood, Earthquake, Fire, Rain, and Wind Disasters in California. Based on our experience with other similar fire management and vegetation management projects in California, it is anticipated that the PEA will adequately address impacts for some resource areas but will not adequately assess all resource areas required for the project. As a result, SWCA assumes that for the project to comply with NEPA, a Supplemental EA (SEA) will be required to tier from the PEA and fully assess the additional impacts to resources not adequately addressed in the PEA. SWCA will prepare the administrative draft SEA and provide it electronically in both Microsoft (MS) Word and Adobe PDF format. SWCA will respond to one round of administrative comment on the SEA and then produce a Public Draft SEA for circulation.

Our approach to NEPA aligns with our CEQA approach as detailed below. Both approaches attempt to streamline the environmental review process and allow for near-term vegetation management activities.

**Assumptions**

- If a Categorical Exclusion is not available for the project, an SEA will be the appropriate NEPA document.
- The SEA will incorporate the PEA by reference.
- The SEA will be a focused document tiered off the PEA and will not require more than 80 hours to prepare.
- The determination for the NEPA document will be a FONSI; therefore, an EIS will not be required.
- FEMA will be responsible for the posting the Public Draft SEA and reviewing any comments received.
- FEMA will prepare and post the FONSI.

**D-3.3 CEQA DOCUMENTATION**

The Town, as lead agency, has the ultimate determination on the appropriate CEQA documentation for a potential project. Due to the Town’s desire to begin project implementation in Fall 2020, the SWCA team will first evaluate the potential for the project to qualify for a Statutory Exemption under State CEQA Guidelines Section 15260–15285. As a second step, the SWCA team will evaluate the possibility of the project or individual project components with more minor environmental resource impacts qualifying for a Categorical Exemption under State CEQA Guidelines Sections 15301–15332. The SWCA team will also work with the Town to include BMPs in the VMP and Project Description to reduce the impacts of the project on environmental resources and avoid the need for any mitigation for environmental resource impacts, to the extent feasible, so the project or additional project components can qualify for a Categorical Exemption. If the project does not qualify for a Statutory Exemption or Categorical Exemption, based on the RFP, SWCA assumes that the project will fall within the California Vegetation Treatment Program (CalVTP) and the appropriate CEQA document will be a focused Negative Declaration (ND) tiered off of the Programmatic EIR (PEIR) for the CalVTP. Regardless of the level of effort, SWCA proposes to provide the Town with thorough, accurate, and objective input and recommendations throughout the

**TESTIMONIAL**

*“During the update process, Chaves County Staff found that the level of technical ability, professionalism, and warmth had not changed. The update to the Chaves County CWPP was accomplished as smoothly and successfully as the original plan created in December 2009.”*

*Charlotte Andrade, Chaves County Community Development Director, Chaves County CWPP, January 2015*



CEQA review process so that the Town may make the best possible informed decision regarding the appropriate CEQA document for its project.

### ***CEQA Exemption Analysis***

CEQA provides several exemptions that may be relevant to the Town's vegetation management for fuel reduction including, but not limited to, the following:

- State CEQA Guidelines Section 15269 Statutory Exemption for Emergency Projects, including emergency repairs to publicly or privately owned service facilities necessary to maintain service essential to the public health, safety, or welfare and/or specific actions necessary to prevent or mitigate an emergency.
- State CEQA Guidelines Section 15301 Class 1 Categorical Exemption for the operation, repair, maintenance, or minor alteration of existing facilities involving negligible or no expansion of an existing use.
- State CEQA Guidelines Section 15304 Class 4 Categorical Exemption for minor public or private alterations in the condition of land, water, and/or vegetation that do not involve removal of healthy, mature, or scenic trees except for forestry and agricultural purposes.<sup>1</sup>

The difference between a Statutory Exemption and Categorical Exemption under CEQA is important. In general, a Statutory Exemption bypasses the typical environmental review and can be used regardless of whether the project has a potential impact on the environment. In contrast, a Categorical Exemption is subject to certain exceptions and other limitations (per State CEQA Guidelines Section 15300.2) that can prevent the use of a Categorical Exemption. For example, Class 1 and Class 4 Categorical Exemptions are rendered invalid if there is a reasonable possibility the exempted activity will have a significant effect on the environment due to unusual circumstances (e.g., significant impacts to biological or cultural resources). A statutory exemption is not subject to such limitations.

The SWCA team will begin investigations to determine if the project qualifies for a Statutory Exemption under State CEQA Guidelines Section 15269. If the project does qualify for this Statutory Exemption, the SWCA team will prepare a short (1-page) memo documenting the conditions for the project to be eligible for exemption and we will complete a Notice of Exemption (NOE) form and provide it to the Town for submission to the Santa Clara County Clerk's Office.

If the project does not qualify for a Statutory Exemption under CEQA, the SWCA team will determine if any project components will be eligible for a Categorical Exemption. Our initial investigations will focus on determining if the project will have a potentially significant impact environmental resources including, but not limited to, biological and cultural resources. If these investigations do not uncover conditions that will make the project component ineligible for a Categorical Exemption, SWCA will proceed with the preparation of a memo report to provide Categorical Exemption documentation. The Categorical Exemption memo will note the appropriate class of exemption and document that the project does not meet an exception to a Categorical Exemption (State CEQA Guidelines Section 15300.2). In the Categorical Exemption memo, SWCA will specify that the project will not result in:

- Significant effects;
- Cumulative impacts;
- Damage to scenic resources;

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<sup>1</sup> This Categorical Exemption includes fuel management activities within 30 feet of structures to reduce the volume of flammable vegetation, provided that the activities will not result in the taking of endangered, rare, or threatened plant or animal species or significant erosion and sedimentation of service waters. This exemption also applies to fuel management activities within 100 feet of a structure if the public agency having fire protection responsibility for the area has determined that 100 feet of fuel clearance is required due to extra hazardous fire conditions.

- Substantial adverse change to a historical resource; and/or
- An impact to a hazardous waste site.

The draft CEQA Categorical Exemption and NOE will be prepared and submitted to the Town for review. SWCA will incorporate comments and submit the final Categorical Exemption to the Town. SWCA will also prepare an NOE and provide it to the Town for submission to the Santa Clara County Clerk's Office.

### ***Programmatic Environmental Impact Report Consistency Analysis/Focused Negative Declaration***

The PEIR for the CalVTP functions to streamline CEQA review of later activities associated with the CalVTP. SWCA will use the Project-Specific Analysis (PSA) associated with the PIER to evaluate whether the Town VMP qualifies within the scope of the PEIR or requires additional environmental documentation or its own independent environmental review. This evaluation will include the following:

- Determine whether the project is consistent with the description of activities contained within the CalVTP and whether the effects on the environment were covered in the PEIR.
- If the project has new impacts not addressed in the PEIR, determine if the project will cause any substantially more severe significant impacts than were addressed in the PEIR or if a new mitigation measures or alternative that is substantially different from those in the PEIR.

The PSA will serve as the Initial Study for new impacts associated with the project. In accordance with the CalVTP reporting requirements, SWCA will submit the completed PSA to CAL FIRE along with, at a minimum, the project location, project size, treatment activities, and contact information for the project.

If the project does not cause a new impact and is consistent with the PEIR, then the project will be considered within the scope of the PEIR and no additional environmental documentation will be required. SWCA will document this determination through substantial evidence based on the PSA in a short memo and provide it to the Town. SWCA will also assist the Town in preparation of the Notice of Determination (NOD). Up to one round of review by the Town is assumed under this task. SWCA assumes that the Town will be responsible for any filing fees with the County Clerk's office. This task will only be performed if no further analysis is necessary and will take the place of the ND described below.

Based on the RFP and our preliminary desktop review, we anticipate that at least one impact not covered by the PEIR may occur, such as biological resources or visual resources, but that any impact will be less than significant, and no mitigation will be required. As a result, SWCA will prepare a focused ND tiered off the PEIR for the project. The focused ND will be limited to the impact(s) not within the scope of the PEIR. Additional details on the scope of work associated with the ND follow.

### ***Assumptions***

- Based on the RFP and preliminary desktop review of the project all environmental impacts are expected to be reduced to less than significant. Therefore, a focused ND tiered off the PEIR for CalVTP will be the appropriate CEQA document for the project.
- When preparing the ND, if the project is found to have significant unavoidable impacts, SWCA will stop work immediately and notify the Town to determine an appropriate path forward, such as making modifications to the PD to avoid the WUIs and be able to move forward with all impacts being less than significant or preparing a different CEQA document (e.g., PEIR-focused MND or EIR per PSA).

**Administrative Draft Negative Declaration**

SWCA will work closely with the Town to prepare an administrative draft IS/ND pursuant to the 2019 State CEQA Guidelines Sections 15063 and Sections 15070–15075 for all project components that are not Categorically Exempt. Preparation of the IS/ND will include a project description and a preliminary assessment of all resource areas as required by State CEQA Guidelines Appendix G. The administrative draft ND will be provided electronically in both MS Word and Adobe PDF format.

**Assumptions**

- The Draft ND will be submitted in electronic format (MS Word and Adobe PDF) only.
- Information from the field surveys will be incorporated directly into the ND and technical reports will not be prepared as part of this scope of work.
- One round of consolidated comments from the Town will be incorporated into the subsequent Public Draft ND.
- If necessary, it's assumed that Assembly Bill (AB) 52 compliance would be conducted by the Town.

**TESTIMONIAL**

“We submitted a proposal to begin implementation of the Pope County CWPP. We were able to lift the recommendations right out of the CWPP for the proposal. Thanks for helping us get that done.”

*Scott Crist, USFS Fuels Specialist,  
Pope County CWPP,  
January 2017*

**Public Draft Negative Declaration**

SWCA will respond to one round of administrative comments on the IS/ND and then produce a Public Draft ND for circulation. Per the RFP, we will provide the Town up to 20 printed copies (as needed) of the Public Draft ND for direct mailing to recipients in accordance with State CEQA Guidelines Section 15072. We will also provide one electronic version so the Town can make additional copies of the document and post the document to their website as necessary for public review. SWCA assumes the Town will be responsible for developing the mailing list, postage, and mailing all the documents.

**Assumptions**

- The Town will not have any substantial comments on the Draft ND.

**Public Notices**

SWCA will prepare the Notice of Intent (NOI) to Adopt the ND that the Town can use to fulfill the public noticing requirements of State CEQA Guidelines Section 15072. SWCA will provide text that the Town can use to provide public noticing consistent with CEQA requirements (e.g., newspaper publication, direct mailers, posting of notice on- and off-site). As indicated under the Public Draft ND scope, we assume that distribution of the public notice and availability of the document for public review will be the responsibility of the Town.

SWCA will prepare the Notice of Completion (NOC) for the State Clearinghouse, along with 15 copies of the document on CD for state agency review. Our budget includes staff time to prepare and send the package via FedEx to the State Clearinghouse.

**Final Negative Declaration**

At the close of the public review period, the SWCA team will review and categorize the comments received on the ND during the 30-day public review period and coordinate with the Town to develop a response strategy. We assume one conference call up to 1 hour in length to develop a response strategy. As determined appropriate, SWCA will prepare draft responses to public comments on the ND, make any necessary clarifying text changes to the ND, and compile the final ND. The draft responses and the final ND will be subject to one round of review by the Town and revisions by

SWCA prior to finalization of the ND. For budgeting purposes, we have assumed that response to comments will require up to 10 hours of SWCA team staff time.

Within 5 working days after the Town approves the project and adopts the ND, SWCA will assist the Town in preparation of the NOD. Up to one round of review by the Town is assumed under this task. SWCA assumes that the Town will be responsible for any filing fees with the County Clerk’s office.

**Attendance at Public Hearings**

SWCA staff will attend one public hearing for the adoption of the ND. The budget includes preparation for and attendance by two SWCA staff members at the public hearing. No additional expenses for presentation materials are included.

**D-4. PROJECT IMPLEMENTATION SUPPORT**

As described in the Scope of Work above, the SWCA team will also provide recommendations for consultant support of the project during implementation of the initial fuel reduction and ongoing maintenance activities. These services may include any required endangered species or jurisdictional waters permitting, environmental monitoring and reporting, stormwater compliance, arborist support during fuel-reduction activities, encroachment or access permit support, and GIS database development.

**D-5. ADDITIONAL INFORMATION**

In addition to SWCA’s suite of specialized planning, scientific and technical services, we also offer several specialized support services in-house to assist with project implementation, including, but not limited to, the following:

**ENVIRONMENTAL MONITORING**

SWCA provides comprehensive monitoring services to help ensure that all environmental requirements associated with permits and plans are met. With an integrated team of biologists, cultural resource specialists, and paleontologists, we excel at quickly mobilizing and managing field crews for monitoring and/or data recovery.

SWCA’s team of environmental monitoring experts is familiar with all aspects of project implementation. We can address the environmental concerns and provide QA/QC and project-specific training to assist in establishing and maintaining regulatory compliance.



*Tree Clearing in Half Moon Bay.*

**GEOGRAPHIC INFORMATION SYSTEMS**

SWCA provides many GIS services tailored to our clients’ requirements. Our objective is to provide seamless integration of geospatial information with planning, management, and decision needs. Our geospatial technology professionals have great experience and knowledge in geospatial data creation, analysis, visualization, reporting, mapping, web and mobile application development, and are proficient with industry-standard GIS software, such as ESRI, including ArcGIS Enterprise/Portal, ArcGIS Desktop, ArcGIS Pro, and ArcGIS Online web and mobile platform. SWCA’s GIS team consists of over 50 GIS professionals throughout the company with a wide range of expertise in spatial analysis, photogrammetry, drone/Unmanned Aircraft Systems (UAS) systems, remote sensing, and programing/scripting, and in the use and customization of ESRI web and mobile data collection apps, such as ArcGIS Collector, Survey123, and Workforce to streamline the collection and integration of field collected data. In addition, our GIS specialists can create comprehensive databases that can be utilized by our clients to track changing field conditions and the effectiveness of project implementation and maintenance over time.

## SAFETY PROGRAM



### **Proud Member**

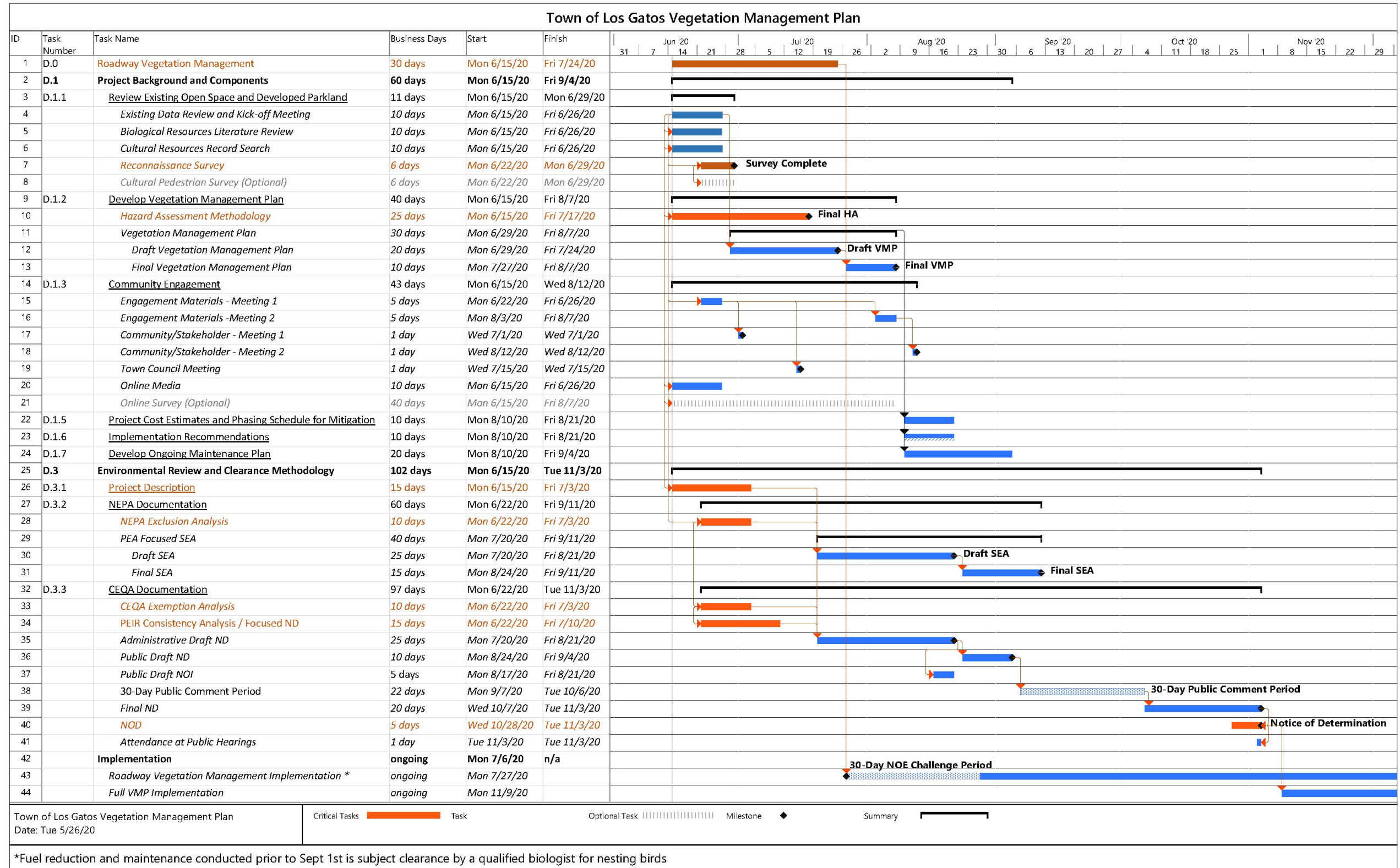
Safety is an integral part of the success of any project. At SWCA, safety is everyone's responsibility and an integral part of our company culture. All SWCA project work adheres to our safety motto: Safety by Choice, Not by Accident. Although our team, including subconsultant personnel, will respond quickly to project needs and issues, our priority and responsibility is personnel safety and reducing or eliminating exposure to safety risks.

Our safety mission includes supporting SWCA's office and field activities by actively supporting a safe and healthy work environment for all employees. This is accomplished through training, increasing awareness, and providing and coordinating specific programs and processes that minimize safety, health, and environmental hazards for our employees, clients, and visitors in a manner consistent with, and in most cases greater than, industry standards.

## E-1-3 PROJECT SCHEDULE

The following project schedule is preliminary in nature and is based on the scope of work outlined in the RFP and the assumptions in this proposal. The schedule is therefore subject to change in the event that the scope or assumptions change during the course of work. SWCA understands that the Town would like to make every effort to begin implementation of fuel reduction activities in the Fall of 2020. To meet or exceed this timeline, this preliminary schedule endeavors to complete the VMP by the summer and, at a minimum, to identify preliminary maintenance activities that can be covered under a Categorical Exclusion/Exemption to allow work to begin while the remainder of the environmental review process is completed.





## E-4. RECOMMENDATION FOR FORMAL PROGRESS REPORTS

Communication is the key to successfully completing any project. Project Manager Mr. Brandi’s project management style is rooted in ensuring ongoing communication coupled with problem-solving skills that make the Town’s job easier. Continual communication is essential to successful CEQA and NEPA project planning. The value of regular meetings between the Town team and contractors cannot be overestimated. Additionally, regular communication with any cooperating agencies and the interested public is also essential. While this communication cannot guarantee that all parties will agree with or support a decision, establishing an environment in which all parties recognize that their voice is heard can help to achieve consensus during the project.

SWCA has worked on complicated projects that had over 50 cooperating agencies (and multiple additional interested parties). These experiences have resulted in lessons learned in establishing clear communication pathways, developing roles and responsibilities, and coordinating and facilitating meetings. As part of our project management planning, SWCA develops a communication plan that outlines appropriate communications and project briefings for cooperating agencies or other interested parties (as necessary/appropriate).

Regular communication is essential to ensure that all parties involved are working with the most up-to-date and accurate information. The SWCA Team understands that reliability, strong relationships, and trust are essential to good communication. To help build our relationship with the Town, we will use management tools to maintain clear project communications, such as conducting regular team calls, using our secure electronic file transfer protocol (FTP) system, and providing diagrams of the “chain of command” within our team (including our teaming partners). Rapid and direct communication regarding safety, public interaction, field logistics, and schedule issues will flow directly from SWCA to Town staff. These actions will prevent rework, as all involved parties will constantly be informed of the various aspects of the project.

Based upon the expedited preliminary schedule for the project that is included with this proposal, SWCA recommends that we provide formal progress reports to the Town on a bi-weekly basis (twice per month). These formal reports will be formatted in a concise memorandum format and will summarize recent communications between the SWCA team and the Town and will outline all new work that has been completed since the last progress report was issued.

## F. EXCEPTIONS

SWCA takes no exception to the contents of Attachment B – Standard Agreement.

## G. RATE SHEET

### 2020 LABOR CATEGORIES AND BILLING RATES

**PRINCIPALS & PROJECT MANAGEMENT STAFF**

Principal-in-Charge.....	\$285–398	Project Manager VII.....	\$131.00
Project Manager XII.....	\$205.00	Project Manager VI.....	\$119.00
Project Manager XI.....	\$187.00	Project Manager V.....	\$109.00
Project Manager X.....	\$171.00	Project Manager IV.....	\$99.00
Project Manager IX.....	\$153.00	Project Manager III.....	\$89.00
Project Manager VIII.....	\$142.00		

**CONSULTING SERVICES**

Cultural Resources		Air Quality	
Environmental Resources		Graphics / Media Production	
Paleontology		GIS / CADD Resources	
Scientific Resources		Technical Writing / Editing	
Planning Resources		Principal Investigator	
Information Technology		Training / Facilitation	
Subject Matter Expert.....	\$210–324	Specialist V.....	\$109.00
Specialist XII.....	\$205.00	Specialist IV.....	\$99.00
Specialist XI.....	\$187.00	Specialist III.....	\$89.00
Specialist X.....	\$171.00	Specialist II.....	\$79.00
Specialist IX.....	\$153.00	Specialist I.....	\$67.00
Specialist VIII.....	\$142.00		
Specialist VII.....	\$131.00	Technician II.....	\$55.00
Specialist VI.....	\$119.00	Technician I.....	\$47.00

**ADMINISTRATIVE**

Administrative VIII.....	\$125.00	Administrative IV.....	\$77.00
Administrative VII.....	\$113.00	Administrative III.....	\$66.00
Administrative VI.....	\$101.00	Administrative II.....	\$53.00
Administrative V.....	\$89.00	Administrative I.....	\$42.00

Direct expenses are subject to a 5% administrative markup and subcontractor expenses are subject to a 10% administrative markup. These rates do not apply to depositions or testimonies at administrative hearings and trials. Such activities fall under our Expert Witness rates, which vary by state.

Overtime is invoiced at 1.2 times standard rates.

Per Diem is billed at the GSA rate in place at the time of billing. Mileage is billed at the IRS mileage rate in place at the time of billing.

## H. ADDITIONAL DOCUMENTATION

Whether your community needs assistance coordinating a Firewise program (which focuses on grass-roots organizing, neighborhood assessments of fire hazards, and public outreach and education), a CWPP, or an FMP, SWCA’s fire experts can facilitate the planning process for everything from large-scale regional plans to plans for small communities.

With more than 10 years of experience completing CWPPs and FMPs throughout the West and Pacific Northwest, SWCA emphasizes collaborative planning among federal, state, and county government agencies; non-governmental agencies; and community members. SWCA has team members on staff who hold National Wildfire Coordinating Group (NWCG) qualifications and red cards, and all SWCA CWPPs meet the requirements of the 2003 Healthy Forest Restoration Act. SWCA also holds an NPS Blanket Purchase Agreement contract for completion of FMPs in support of EAs across the United States (see **Section B, Relevant Projects**).

Examples of a few of our Fire Plans can be found here: <https://www.swca.com/services/environmental-planning/wildfire-planning-services>.

# I. COST PROPOSAL

## SUMMARY COST TABLE<sup>1</sup>

PHASE/TASK/SUBTASK	ESTIMATED COST
<b>Phase D-0. Roadway Vegetation Management</b>	Included Below <sup>2</sup>
<b>Phase D-1. Project Background and Components</b>	
Task D-1.1. Review Existing Open Space and Developed Parkland	\$29,292
Task D-1.2. Develop Vegetation Management Plan	\$52,964
Task D-1.3. Community Engagement	\$24,005
Task D-1.4. NEPA/CEQA Documents	See Phase D-3
Task D-1.5. Project Cost Estimates and Phasing Schedule for Mitigation	\$14,740
Task D-1.6. Implementation Recommendations	\$7,794
Task D-1.7. Develop Ongoing Maintenance Plan	\$11,828
<b>Phase D-2. Los Gatos Open Space Maps and Target Roadways</b>	
<b>Phase D-3. Environmental Review and Clearance Methodology</b>	
Task D-3.1 Project Description	\$7,108
Task D-3.2 NEPA Documentation	\$12,396
Task D-3.3 CEQA Documentation	\$39,701
<b>PROJECT TOTAL</b>	<b>\$199,828</b>

Notes:

- 1) Cost estimates are based on our current understanding of the tasks as described in the RFP and our experience providing similar services. All tables include a 5% markup on expenses.
- 2) This initial phase of the project will incorporate various aspects of the subsequent phases of the project described below. SWCA will therefore make every effort to complete this initial phase of the project under the existing cost proposal for the overall project, but will notify the Town if any out of scope work will require a budget augmentation.

## PHASE D-1. PROJECT BACKGROUND AND COMPONENTS

### TASK D-1.1. REVIEW EXISTING OPEN SPACE AND DEVELOPED PARKLAND

Labor Expenses			
Project Role	Rate	Hours	Estimated Cost
Megan Peterson, Principal-in-Charge / QA/QC	\$275	-	\$-
Mark Brandi, Project Manager	\$210	10	\$2,100
Lauren Huff, Deputy Project Manager	\$205	12	\$2,460
Vicky Amato, Fire Ecologist	\$119	2	\$238
Ariana Porter, Fire Ecologist	\$67	-	\$-
Anne Russell, Fire Behavior Modeling Specialist	\$109	8	\$872

Laura Moran, Natural Resource Team Lead	\$225	8	\$1,800
Jessie Henderson-McBean, Biologist	\$119	54	\$6,426
Erich Schickenberg, Arborist	\$142	54	\$7,668
Leroy Laurie, Cultural Resources Lead	\$153	12	\$1,836
Anna Belk, GIS Specialist	\$119.00	16	\$1,904
Jennifer Torre, Project Controller	\$125.00	-	\$-
Carol Henson, Fuel Management Specialist	\$120	6	\$720
John Justice, Local Technical Expert	\$125.00	6	\$750
<b>Total Labor</b>			<b>\$26,774</b>
<b>Direct Expenses</b>			
<b>Description</b>	<b>Unit</b>	<b>Rate</b>	<b># of Units</b>
Copies – B&W (in-house)	Per Copy	\$0.10	-
Copies – Color (in-house)	Per Copy	\$1.00	-
Records Search Fees	Per Each	\$500	1
<b>Total Direct Expenses</b>			<b>\$500</b>
<b>Travel Expenses</b>			
<b>Description</b>	<b>Unit</b>	<b>Rate</b>	<b># of Units</b>
Mileage	Per Mile	\$0.58	1,600
Per Diem	Per Day	\$55	16
<b>Total Travel Expenses</b>			<b>\$1,800</b>
<b>TOTAL COST FOR TASK D-1.1.</b>			<b>\$29,292</b>

### TASK D-1.2. DEVELOP VEGETATION MANAGEMENT PLAN

<b>Labor Expenses</b>			
<b>Project Role</b>	<b>Rate</b>	<b>Hours</b>	<b>Estimated Cost</b>
Megan Peterson, Principal-in-Charge / QA/QC	\$275	4	\$1,100
Mark Brandi, Project Manager	\$210	32	\$6,720
Lauren Huff, Deputy Project Manager	\$205	48	\$9,840
Vicky Amato, Fire Ecologist	\$119	32	\$3,808
Ariana Porter, Fire Ecologist	\$67	24	\$1,608
Anne Russell, Fire Behavior Modeling Specialist	\$109	24	\$2,616
Laura Moran, Natural Resource Team Lead	\$225	20	\$4,500
Jessie Henderson-McBean, Biologist	\$119	20	\$2,380
Erich Schickenberg, Arborist	\$142	24	\$3,408
Leroy Laurie, Cultural Resources Lead	\$153	-	\$-
Anna Belk, GIS Specialist	\$119.00	-	\$-
Jennifer Torre, Project Controller	\$125.00	-	\$-
Carol Henson, Fuel Management Specialist	\$120	112	\$13,440
John Justice, Local Technical Expert	\$125.00	16	\$2,000
<b>TOTAL COST FOR TASK D-1.2.</b>			<b>\$52,964</b>



### TASK D-1.3. COMMUNITY ENGAGEMENT

Labor Expenses				
Project Role	Rate	Hours	Estimated Cost	
Megan Peterson, Principal-in-Charge / QA/QC	\$275	-	\$-	
Mark Brandi, Project Manager	\$210	36	\$7,560	
Lauren Huff, Deputy Project Manager	\$205	14	\$2,870	
Vicky Amato, Fire Ecologist	\$119	6	\$714	
Ariana Porter, Fire Ecologist	\$67	-	\$-	
Anne Russell, Fire Behavior Modeling Specialist	\$109	-	\$-	
Laura Moran, Natural Resource Team Lead	\$225	8	\$1,800	
Jessie Henderson-McBean, Biologist	\$119	12	\$1,428	
Erich Schickenberg, Arborist	\$142	-	\$-	
Leroy Laurie, Cultural Resources Lead	\$153	-	\$-	
Anna Belk, GIS Specialist	\$119.00	52	\$6,188	
Jennifer Torre, Project Controller	\$125.00	-	\$-	
Carol Henson, Fuel Management Specialist	\$120	-	\$-	
John Justice, Local Technical Expert	\$125.00	24.00	\$3,000	
Total Labor			\$23,860	
Travel Expenses				
Description	Unit	Rate	# of Units	Charge
Mileage	Per Mile	\$0.58	240	\$138
Per Diem	Per Day	\$55	-	-
Total Travel Expenses			\$138	
<b>TOTAL COST FOR TASK D-1.3.</b>			<b>\$24,005</b>	

### TASK D-1.4. NEPA/CEQA DOCUMENTS

The scope of work associated with the NEPA and CEQA documents is provided under Section D-3.

### TASK D-1.5. PROJECT COST ESTIMATES AND PHASING SCHEDULE FOR MITIGATION

Labor Expenses			
Project Role	Rate	Hours	Estimated Cost
Megan Peterson, Principal-in-Charge / QA/QC	\$275	4	\$1,100
Mark Brandi, Project Manager	\$210	16	\$3,360
Lauren Huff, Deputy Project Manager	\$205	8	\$1,640
Vicky Amato, Fire Ecologist	\$119	2	\$238
Ariana Porter, Fire Ecologist	\$67	-	\$-
Anne Russell, Fire Behavior Modeling Specialist	\$109	-	\$-
Laura Moran, Natural Resource Team Lead	\$225	2	\$450
Jessie Henderson-McBean, Biologist	\$119	16	\$1,904
Erich Schickenberg, Arborist	\$142	24	\$3,408
Leroy Laurie, Cultural Resources Lead	\$153	-	\$-
Anna Belk, GIS Specialist	\$119.00	-	\$-

Jennifer Torre, Project Controller	\$125.00	-	\$-
Carol Henson, Fuel Management Specialist	\$120	20	\$2,400
John Justice, Local Technical Expert	\$125.00	-	\$-
<b>TOTAL COST FOR TASK D-1.5.</b>			<b>\$14,740</b>

### TASK D-1.6. IMPLEMENTATION RECOMMENDATIONS

Labor Expenses			
Project Role	Rate	Hours	Estimated Cost
Megan Peterson, Principal-in-Charge / QA/QC	\$275	-	\$-
Mark Brandi, Project Manager	\$210	2	\$420
Lauren Huff, Deputy Project Manager	\$205	12	\$2,460
Vicky Amato, Fire Ecologist	\$119	2	\$238
Ariana Porter, Fire Ecologist	\$67	-	\$-
Anne Russell, Fire Behavior Modeling Specialist	\$109	-	\$-
Laura Moran, Natural Resource Team Lead	\$225	4	\$900
Jessie Henderson-McBean, Biologist	\$119	-	\$-
Erich Schickenberg, Arborist	\$142	8	\$1,136
Leroy Laurie, Cultural Resources Lead	\$153	-	\$-
Anna Belk, GIS Specialist	\$119.00	-	\$-
Jennifer Torre, Project Controller	\$125.00	-	\$-
Carol Henson, Fuel Management Specialist	\$120	20	\$2,400
John Justice, Local Technical Expert	\$125.00	-	\$-
<b>TOTAL COST FOR TASK D-1.6.</b>			<b>\$7,794</b>

### TASK D-1.7. DEVELOP ONGOING MAINTENANCE PLAN

Labor Expenses			
Project Role	Rate	Hours	Estimated Cost
Megan Peterson, Principal-in-Charge / QA/QC	\$275	-	\$-
Mark Brandi, Project Manager	\$210	16	\$3,360
Lauren Huff, Deputy Project Manager	\$205	24	\$4,920
Vicky Amato, Fire Ecologist	\$119	-	\$-
Ariana Porter, Fire Ecologist	\$67	-	\$-
Anne Russell, Fire Behavior Modeling Specialist	\$109	-	\$-
Laura Moran, Natural Resource Team Lead	\$225	8	\$1,800
Jessie Henderson-McBean, Biologist	\$119	-	\$-
Erich Schickenberg, Arborist	\$142	8	\$1,136
Leroy Laurie, Cultural Resources Lead	\$153	4	\$612
Anna Belk, GIS Specialist	\$119.00	-	\$-
Jennifer Torre, Project Controller	\$125.00	-	\$-
Carol Henson, Fuel Management Specialist	\$120	-	\$-
John Justice, Local Technical Expert	\$125.00	-	\$-
<b>TOTAL COST FOR TASK D-1.7.</b>			<b>\$11,828</b>

## PHASE D-2. LOS GATOS OPEN SPACE MAPS AND TARGET ROADWAYS

The Vegetation Management Plan will cover the Town's 234 acres of open space and undeveloped parks and 11 miles of hillside roadways, as shown in Attachment C of the RFP.

## PHASE D-3. ENVIRONMENTAL REVIEW AND CLEARANCE METHODOLOGY

### TASK D-3.1 PROJECT DESCRIPTION

Labor Expenses			
Project Role	Rate	Hours	Estimated Cost
Megan Peterson, Principal-in-Charge / QA/QC	\$275	2	\$550
Mark Brandi, Project Manager	\$210	2	\$420
Lauren Huff, Deputy Project Manager	\$205	8	\$1,640
Vicky Amato, Fire Ecologist	\$119	2	\$238
Ariana Porter, Fire Ecologist	\$67	-	\$-
Anne Russell, Fire Behavior Modeling Specialist	\$109	-	\$-
Laura Moran, Natural Resource Team Lead	\$225	2	\$450
Jessie Henderson-McBean, Biologist	\$119	-	\$-
Erich Schickenberg, Arborist	\$142	-	\$-
Leroy Laurie, Cultural Resources Lead	\$153	-	\$-
Juliet Bolding, Environmental Planner	\$131	20	\$2,620
Anna Belk, GIS Specialist	\$119.00	10	\$1,190
Jennifer Torre, Project Controller	\$125.00	-	\$-
Carol Henson, Fuel Management Specialist	\$120	-	\$-
John Justice, Local Technical Expert	\$125.00	-	\$-
<b>TOTAL COST FOR TASK D-3.1.</b>			<b>\$7,108</b>

### TASK D-3.2 NEPA DOCUMENTATION

Labor Expenses			
Project Role	Rate	Hours	Estimated Cost
Megan Peterson, Principal-in-Charge / QA/QC	\$275	2.00	\$550
Mark Brandi, Project Manager	\$210	2.00	\$420
Lauren Huff, Deputy Project Manager	\$205	6.00	\$1,230
Vicky Amato, Fire Ecologist	\$119	2.00	\$238
Ariana Porter, Fire Ecologist	\$67	-	\$-
Anne Russell, Fire Behavior Modeling Specialist	\$109	-	\$-
Laura Moran, Natural Resource Team Lead	\$225	2.00	\$450
Jessie Henderson-McBean, Biologist	\$119	4.00	\$476
Erich Schickenberg, Arborist	\$142	4.00	\$568
Leroy Laurie, Cultural Resources Lead	\$153	8.00	\$1,224
Juliet Bolding, Environmental Planner	\$131	48.00	\$6,288
Anna Belk, GIS Specialist	\$119.00	8.00	\$952
Jennifer Torre, Project Controller	\$125.00	2.00	\$550

Carol Henson, Fuel Management Specialist	\$120	-	\$-
John Justice, Local Technical Expert	\$125.00	-	\$-
<b>TOTAL COST FOR TASK D-3.1.</b>			<b>\$12,396</b>

### TASK D-3.3 CEQA DOCUMENTATION

Labor Expenses				
Project Role	Rate	Hours	Estimated Cost	
Megan Peterson, Principal-in-Charge / QA/QC	\$275	8	\$2,200	
Mark Brandi, Project Manager	\$210	20	\$4,200	
Lauren Huff, Deputy Project Manager	\$205	64	\$13,120	
Vicky Amato, Fire Ecologist	\$119	-	\$-	
Ariana Porter, Fire Ecologist	\$67	-	\$-	
Anne Russell, Fire Behavior Modeling Specialist	\$109	-	\$-	
Laura Moran, Natural Resource Team Lead	\$225	32	\$7,200	
Jessie Henderson-McBean, Biologist	\$119	-	\$-	
Erich Schickenberg, Arborist	\$142	-	\$-	
Leroy Laurie, Cultural Resources Lead	\$153	-	\$-	
Juliet Bolding, Environmental Planner	\$131	80	\$10,480	
Anna Belk, GIS Specialist	\$119.00	-	\$-	
Jennifer Torre, Project Controller	\$125.00	14	\$-	
Carol Henson, Fuel Management Specialist	\$120	-	\$-	
John Justice, Local Technical Expert	\$125.00	-	\$-	
Total Labor			\$37,200	
Direct Expenses				
Description	Unit	Rate	# of Units	Charge
Copies – B&W (in-house)	Per Copy	\$0.10	3,000	\$300
Copies – Color (in-house)	Per Copy	\$1.00	215	\$215
Overnight Delivery	Per Each	\$100	2	\$200
Total Direct Expenses				\$751
<b>TOTAL COST FOR TASK D-3.3.</b>				<b>\$39,701</b>

SWCA

## APPENDIX A:

Resumes



## MARK BRANDI, MDes, R.L.A., CERP, PROJECT MANAGER

Mr. Brandi is a registered Landscape Architect (RLA) and Certified Ecological Restoration Practitioner (CERP) with nearly two decades of experience in environmental consulting, planning, and design. His professional practice has focused on balancing conservation and development and on integrating people and communities with the natural environment.

Mr. Brandi's primary responsibilities include project management, planning and design, permitting, and implementation support for a wide array of landscape architecture and environmental design projects. These projects include the restoration of landscapes and ecosystems, the planning and design of parks and open spaces, and the integration of public access improvements into sensitive habitats.

### YEARS OF EXPERIENCE

17

### EXPERTISE

Restoration Ecology

Landscape Planning

Landscape Architecture

Biological Assessments

Environmental Permitting

### EDUCATION

MDes, Landscape Planning and Ecology; Harvard University Graduate School of Design; 2004

B.S., Landscape Architecture; University of California, Davis; 2000

### REGISTRATIONS / CERTIFICATIONS

Certified Ecological Restoration Practitioner (CERP), California; Society for Ecological Restoration

Landscape Architect, California No. 5591

Qualified SWPPP Practitioner / Developer (QSP/QSD), California No. 4145; California Stormwater Quality Association

### AWARDS / HONORS

Merit Award for Excellence in the Study of Landscape Architecture

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

\* **American River Parkway Natural Resources Management Plan; Sacramento County Regional Parks; Sacramento, Sacramento County, California.** Role: Project Manager. Managed development of a comprehensive management plan to balance preservation of natural and cultural resources with enhancement of recreation and other human uses of parkway.

\* **Bear Creek Redwoods Vegetation Management Plans; Midpeninsula Regional Open Space District; Bear Creek Redwoods Open Space Preserve, Santa Clara County, California.** Role: Restoration Ecologist. Assisted with development of invasive species management plan, integrated pest management plan, and mitigation and monitoring plan for sensitive species adjacent to public access areas.

\* **Lake Chabot Regional Park Campus Modernization Firesafe Landscape Plan, Castro Valley, Alameda County, California.** Role: Landscape Architect / Restoration Ecologist. Developed firesafe landscape design plan that utilized native fire-resistant plants, provided defensible space around proposed structures, and reduced wildfire risk.

\* **Suncrest Dynamic Reactive Power Support Project; Confidential Client; San Diego County, California.** Role: Restoration Ecologist. Provided expertise in restoration of habitats where unavoidable impacts are required to implement project, balancing habitat creation goals with critical fire safety requirements for the region.

\* **Tolay Lake Regional Park Master Plan; Sonoma County Parks; Sonoma County, California.** Role: Restoration Ecologist / GIS Specialist. Provided subject matter expertise in restoration and enhancement of aquatic and terrestrial habitats, and identified and mapped sensitive resources and recreation opportunities on-site.

\* **Calero County Park Trails Master Plan; Santa Clara County Parks; Santa Clara County, California.** Role: Project Manager. Supported trail planning to avoid sensitive resources and managed stormwater compliance requirements to protect water quality during implementation of park Trails Master Plan.

\* **Stevens Creek Corridor Master Plan; Cupertino Parks and Recreation; Cupertino, Santa Clara County, California.** Role: Restoration Ecologist. Identified opportunities to incorporate riparian and upland habitat restoration into overall Master Plan for site.

- \* **Marin County Parks Inclusive Access Plan; Marin County Parks and Open Space; Marin County, California.** *Role: Project Manager. Managed development of inclusive access plan and environmental review process to improve access to parks and open space preserves for users of all abilities, including identification of sensitive resources for initial pilot projects across Countywide park system.*
- \* **Red Barn Public Access Area Improvements; Midpeninsula Regional Open Space District; La Honda Creek Open Space Preserve, San Mateo County, California.** *Role: Project Manager. Managed consultant team effort to document existing site conditions and to design public access improvements that are sensitive to natural resources and agricultural heritage of site.*
- \* **Joseph D. Grant County Park California Red-Legged Frog and California Tiger Salamander Pond Improvements; Santa Clara County Parks; Santa Clara County, California.** *Role: Landscape Architect / Restoration Ecologist. Identified and evaluated opportunities to restore and enhance a series of ponds for California red-legged frog and California tiger salamander.*
- \* **Three Creeks Trail; City of San Jose; San Jose, Santa Clara County, California.** *Role: Task Manager. Led Habitat Conservation Plan permitting and Stormwater Pollution Prevention Plan process for project and provided trail design support including development of a native plant palette and green infrastructure adjacent to trail.*
- \* **Santa Clara County Bridges Riparian Restoration Project; Santa Clara County, California.** *Role: Deputy Project Manager. Managed creation of native riparian habitat adjacent to 12 county bridges that required routine scour repairs within jurisdictional wetlands and waters.*
- \* **Alum Rock Pond and Stream Restoration Project; Waste Management of California; San Jose, Santa Clara County, California.** *Role: Deputy Project Manager. Managed pond and stream restoration within footprint of former reservoir and dam to support California red-legged frog and California tiger salamander and assisted with performance monitoring for created stream and riparian habitats.*
- \* **Bear Gulch Upper Diversion Fish Passage Project; California Water Service; Woodside, San Mateo County, California.** *Role: Restoration Ecologist. Assisted with planning, design, permitting, and stormwater compliance to implement fish ladder for steelhead trout around existing drinking water diversion dam.*
- \* **Beresford Creek and Los Gatos Creek Mitigation Projects; Peninsula Corridor Joint Powers Board; San Mateo and San Jose, San Mateo and Santa Clara Counties, California.** *Role: Landscape Architect / Restoration Ecologist. Assisted with environmental permitting, creek mitigation design, construction observation, and performance monitoring for creek, wetland, and riparian mitigation areas associated with trackway improvement projects along the rail corridor.*
- \* **Coyote Point Eastern Promenade Renovation; San Mateo County Parks; Coyote Point Recreation Area, San Mateo County, California.** *Role: Project Manager. Managed CEQA, regulatory permitting, and landscape design for renovation of shoreline promenade within recreation area, including native plant palette of shoreline and coastal bluff species.*
- \* **Fitzgerald Marine Reserve Coastal Trail and Beach Access Improvements; San Mateo County Parks; Moss Beach, San Mateo County, California.** *Role: Deputy Project Manager. Managed permitting and design of low-impact public access improvements through sensitive riparian and wetland areas supporting California red-legged frog.*
- \* **Yosemite Slough Tidal Marsh Restoration and Park Improvements Project; California State Parks Foundation; San Francisco, San Francisco County, California.** *Role: Deputy Project Manager. Managed regulatory permitting and design of restored tidal marsh, park improvements, and Bay Trail design on former urban brownfield site.*
- \* **Belle Aire Tidal Marsh Restoration Project; Private Landowner; South San Francisco, San Mateo County, California.** *Role: Project Manager. Currently managing feasibility study to implement large-scale tidal marsh restoration project along San Francisco Bay shoreline that would increase resiliency to sea level rise and climate change.*
- \* **Kirby Canyon Recycling and Disposal Facility Wetland Creation; Waste Management of California; San Jose, Santa Clara County, California.** *Role: Deputy Project Manager. Managed environmental permitting and design of habitats to support California red-legged frog and Mount Hamilton thistle, and assisted with performance monitoring for created seasonal wetland and riparian habitats.*

## LAUREN HUFF, M.S., DEPUTY PROJECT MANAGER

Ms. Huff is a senior wildlife biologist and project manager and has been working in the scientific fields for over 15 years. She has been involved in all aspects of projects, including project management, field surveys, endangered and threatened species surveys, siting/constraints analysis, document preparation, agency coordination and negotiations, impact analysis, and mitigation planning. She has experience in performing and managing reconnaissance-level site surveys, habitat assessments, wetland delineations, nesting bird surveys and monitoring, construction monitoring and permit compliance, and mitigation monitoring and compliance. She also has extensive experience in NEPA, CEQA, aquatic resources, federal Endangered Species Act (FESA) Section 7 and Section 10, and other permitting.

Ms. Huff has extensive knowledge of federal and state regulations, including the FESA, Magnuson-Stevens Fisheries Act, Clean Water Act, Migratory Bird Treaty Act, Porter-Cologne Act, California Endangered Species Act, and California Fish and Game Code.

### YEARS OF EXPERIENCE

15

### EXPERTISE

NEPA compliance

CEQA compliance

Environmental Permitting

Endangered Species Act Section 7 and Section 10

### EDUCATION

M.S., Conservation Biology; University of Minnesota; 2009

B.S., Animal Physiology and Neuroscience; University of California San Diego; 2001

### REGISTRATIONS / CERTIFICATIONS

Adult First Aid/CPR/AED; 2019

Certified Wetland Delineator; 2011

### PERMITS

CDFW Scientific Collection permit, Number SC-11361.

### TRAINING

Project Management; 2020

Advanced Hydric Soils; 2014

Endangered Species Act Section 7 Workshop; 2013

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

**\* Oceano Dunes State Vehicular Area Habitat Conservation Plan; MIG; San Luis Obispo County, California.** Endangered Species Act and other regulatory compliance for the operation of the Oceano Dunes State Vehicular Recreation Area. *Role: Senior Biologist/Deputy Project Manager. Prepared Habitat Conservation Plan (HCP) for impacts to western snowy plover, California least tern, California red-legged frog, tidewater goby, and listed plants; prepared wildlife and vegetation sections of Environmental Assessment (EA) for NEPA and biological portions of Environmental Impact Report (EIR) CEQA; coordinated with U.S. Fish and Wildlife Service (USFWS) on impacts and mitigation; reviewed and provided guidance on previous informal consultation with National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) regarding Central California Coast steelhead in HCP area, and assisted with discussions and negotiations with California Department of Wildlife (CDFW) regarding preparation of Natural Community Conservation Plan (NCCP).*

**\* Bear Creek Redwoods Vegetation Management Plans; Midpeninsula Regional Open Space District; Bear Creek Redwoods Open Space Preserve, Santa Clara County, California.** Sensitive resource protection and mitigation near the Alma College Trailhead and invasive plant mapping and management planning at Bear Creek Redwoods Open Space Preserve. *Role: Senior Biologist. Assisted with development of invasive species management plan, integrated pest management plan, and mitigation and monitoring plan for western pond turtle adjacent to public access areas.*

**\* San Mateo Grade Separation Project; Caltrain; San Mateo County, California.** Environmental planning, permitting, and construction monitoring for construction of a grade separation for 28<sup>th</sup> and 31<sup>st</sup> Avenues and raising of the train tracks about 25<sup>th</sup> Avenue to provide new access to a planned transit village the City of San Mateo will construct. *Role: Senior Biologist. Conducted a wetland delineation and prepared a Jurisdictional Determination Report; prepared wetlands, floodplains, water quality, and endangered species sections of Categorical Exclusion determination for NEPA; and prepared Section 7 FESA consultation letters and Mitigation Monitoring Plan.*

- \* Bear Gulch Upper Diversion Fish Passage Project; California Water Services; San Mateo County, California.** Construction monitoring and environmental compliance during construction of a fish ladder to allow passage of Central California Coast steelhead. *Role: Senior Biologist/Project Manager. Managed construction monitoring and preconstruction surveys; ensured compliance with resource agency permit conditions; corresponded with resource agencies, including USFWS, NOAA Fisheries, U.S. Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB) regarding project changes and special-status species impacts; and prepared post-construction reports for resource agencies to document compliance with permit conditions. Special-status species of concern include Central California Coast steelhead, California red-legged frog, San Francisco gartersnake, California giant salamander, San Francisco dusky-footed woodrat, and nesting birds.*
- \* Hercules New Town Center Project; City of Hercules; Contra Costa County, California.** CEQA documentation for the construction of a Safeway shopping center in the City of Hercules. *Role: Senior Biologist/Project Manager. Prepared CEQA addendum to February 2009 Final EIR.*
- \* Hillsborough Storm Drain Repair Project; Town of Hillsborough; San Mateo County, California.** Environmental assessment, permitting, and construction monitoring and compliance for the re-routing and repair of storm drains in the Town of Hillsborough. *Role: Project Manager/Senior Biologist. Conducted habitat assessment for three locations where storm drain repairs are planned; prepared Biological Resources Reports documenting sensitive resources in project area; prepared Biological Assessment for USFWS assessing impacts to California red-legged frog; prepared and secured USACE, RWQCB, and CDFW permits and coordinated with resource agencies to amend permits; evaluated opportunity for a CEQA Categorical Exemption and prepared Categorical Exemption memo; and managed preconstruction surveys and construction monitoring.*
- \* Walnut Park Expansion Low-Effect Habitat Conservation Plan Project; City of Walnut; Los Angeles County, California.** Endangered Species Act compliance for the construction of the City of Walnut Park expansion. *Role: Senior Biologist. Prepared low-effect HCP for impacts to coastal California gnatcatcher and assisted in mitigation negotiations with USFWS and City of Walnut.*
- \* Menlo Park Equalization Basin Project; Freyer Laureta, Inc.; San Mateo County, California.** Biological constraints analysis for the improvement of the Menlo Park Equalization Basin to bring it out of the Federal Emergency Management flood zone. *Role: Senior Biologist. Conducted biological constraints analysis for biological resources, including special-status species (i.e., Central California Coast steelhead, longfin smelt, California least tern, western snowy plover, California Ridgway's rail, western burrowing owl, saltmarsh harvest mouse, and nesting birds) and sensitive habitat (i.e., Central California Coast steelhead critical habitat, North American green sturgeon critical habitat, and essential fish habitat), and assisted with scheduling and preparing documentation for interagency meeting with USACE, USFWS, RWQCB, and NOAA Fisheries.*
- \* Sunnyvale Pump Station Project; Pacific Gas and Electric Company; Santa Clara County, California.** Environmental permitting for the placement of an existing high-pressure gas regulator and approximately 60-foot-long portion of the associated natural gas pipe to Sunnyvale Substation in the northeastern portion of the City of Sunnyvale. *Role: Project Manager / Senior Biologist. Managed preparation of a Joint Aquatic Resources Permit application and Biological Assessment for submittal to permitting agencies.*
- \* Annual Bay Waters Maintenance Program; Pacific Gas and Electric Company; San Francisco Bay Area, California.** Permitting and biological monitoring for the annual repair and maintenance of existing boardwalks and towers, installation of new boardwalks that are needed to access transmission towers, and the repair of existing transmission towers in the San Francisco Bay. *Role: Assistant Project Manager / Senior Biologist. Managed environmental compliance and biological monitoring activities for annual maintenance of transmission towers; prepared Joint Aquatic Resources Permit Applications for USACE, CDFW, RWQCB, and San Francisco Bay Conservation and Development Commission; conducted biological surveys and habitat assessments; prepared Biological Assessments for impacts to North American green sturgeon, Central California Coast steelhead, delta smelt, California least tern, western snowy plover, California Ridgway's rail, and salt marsh harvest mouse for USFWS and NOAA Fisheries; conducted biological monitoring; prepared and conducted environmental trainings; and conducted agency coordination on project changes, non-compliances, and mitigation negotiations.*



## MEGAN PETERSON, B.A., PRINCIPAL-IN-CHARGE / QA/QC LEAD

Ms. Peterson has more than 23 years of professional experience in virtually every aspect of environmental program management for large-scale construction and infrastructure projects. She is highly knowledgeable about state and federal regulatory processes and has managed and contributed to a wide range of environmental documents, including, biological, hydrological, and archaeological technical reports, construction implementation and restoration plans, numerous federal and state agency permit applications, proponent’s environmental assessments in compliance with the California Public Utilities Commission’s General Order (GO) 131-D, NEPA Environmental Assessments, and CEQA IS/MNDs and EIRs. Ms. Peterson has also successfully managed compliance programs for complex and controversial projects, overseeing many disciplines, staff members, subcontractors, and contributors. Her years of field experience have proved highly beneficial during the planning and regulatory approval process to ensure successful project implementation during construction.

### YEARS OF EXPERIENCE

23

### EXPERTISE

- Environmental program management
- Environmental document preparation (CEQA/NEPA)
- Federal and state permit acquisition
- Environmental compliance management, inspection, and training
- Stream and wetland protection and restoration
- Erosion and sediment control
- Permitting and regulatory strategy
- Restoration and revegetation

### EDUCATION

B.A., Environmental Studies and Economics; University of California Santa Cruz; 1996

### TRAINING

Water System Improvement Program, Construction Management Workshop (8 hours), San Francisco Public Utilities Commission

QSD/QSP Training (3 days); passed QSD exam and certification in process, Qualified SWPPP Developer and Practitioner (QSD/QSP) Training – certification in process

Certified Professional in Erosion and Sediment Control Training (8 hours)

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

**Canyon Lane Roadway Improvements EIR; County of San Mateo; Redwood City, San Mateo County, California.** SWCA is preparing an EIR and technical background studies, including a rare plant study, an air quality analysis, fire modeling due to the project’s location at the Wildland Urban Interface, a biological resources report, and a cultural resources study, for the improvement of Canyon Lane, development of a single-family residence on one parcel, and future development of residences on 11 parcels. The project also involves the construction of new utilities, including a waterline and an underground distribution line. *Role: Project Director. Provided QA/QC and overall CEQA strategy.*

**Line 300A/B Vegetation Management Environmental Services; PG&E; San Benito County, California.** SWCA provided biological support for the project, which included approximately 18 acres of vegetation removal along 25 miles of natural gas transmission lines 300A and 300B rights-of-way. SWCA prepared biological assessments for special-status species such as San Joaquin kit fox, California tiger salamander, golden eagle, and rare plants. In addition to the biological resource reports prepared, SWCA prepared an IS/MND in compliance with CEQA, prepared a Section 1602 Lake and Streambed Alteration Agreement (LSAA), and developed the mitigation plan for the LSAA. *Role: Project Director. Conducted contract oversight and QA/QC of project deliverables.*

**Pipeline Safety Enhancement Plan Vegetation Management General Environmental Services; PG&E; Multiple Counties, California.** SWCA provided environmental services in support of PG&E’s Vegetation Management program throughout the PG&E Central Coast region, including preparation of CEQA documents, environmental permit preparation, environmental review, preconstruction biological surveys, biological monitoring/training, and agency consultation regarding potential impacts to special-status species (e.g., California red-legged frog, California tiger salamander, San Joaquin kit fox, federally listed salmonids), and associated habitat. *Role: Project Director. Conducted contract oversight and review and QA/QC of project deliverables.*

**Half Moon Bay Drainage Maintenance Biological Services; City of Half Moon Bay; San Mateo County California.** SWCA prepared a Biological Resources Evaluation (BRE) for the completion of routine maintenance activities within 22 drainages located within the City’s jurisdiction. Routine maintenance activities included vegetation



**TRAINING (CONT'D)**

Nationwide Permits Complete (2 days),  
Wetland Training Institute, Inc.

Construction Stormwater Workshop  
(8 hours)

Water System Improvement Program,  
Construction Management Information  
System (CMIS) User Training (8 hours),  
San Francisco Public Utilities  
Commission

management, sediment removal, and culvert cleanout. SWCA also assisted the City with permit application preparation, conducted surveys for California red-legged frog and San Francisco garter snake, provided support with MND preparation and comment response, and developed an MMRP. *Role: Project Director. Provided QA/QC and permitting and regulatory strategy.*

**City of Half Moon Bay General Plan Update; Dyett & Bhatia; Half Moon Bay, San Mateo County, California.** SWCA prepared an Existing Conditions Report and EIR sections for the project, which included updates to the Land Use, Conservation, Open Space, Noise, and Housing Elements. SWCA assessed aesthetics, light, and glare; biological resources; cultural resources; geology, soils and seismicity; and hydrology and water quality impacts. *Role: Project Director. Provided overall QA/QC of deliverables.*

**Kehoe Ditch Feasibility Study; Callander Associates Landscape Architecture; Half Moon Bay, San Mateo County, California.** SWCA is providing environmental permitting and cultural resources assessments for a feasibility study examining alternatives to remove invasive vegetation, restore habitat, reduce flooding potential, and provide erosion control along a portion of Kehoe Ditch. SWCA produced a permitting review memo and participated in City staff and City Council vetting meetings to present the proposed solutions. *Role: Project Principal. Provided overall QA/QC of deliverables.*

**PV Water Projects Environmental Permitting and Document Support; Pajaro Valley Water Management Authority; Santa Cruz and Monterey Counties, California.** SWCA is providing environmental permitting and environmental documentation for multiple water distribution and recycled water facility projects, which have included construction of additional water storage tanks and upgrades to PV Water's existing water treatment facility and the addition of new distribution pipelines to better serve Santa Cruz and Monterey County agricultural customers. SWCA has prepared multiple addendums in compliance with CEQA, a CEQA-Plus environmental document addendum, Section 106 and CEQA archaeological surveys and reports, consultation assistance with the SHPO, wetland delineations, biological technical reporting, permitting, and preparation assistance for funding applications. *Role: Project Director. Conducted contract oversight, review and QA/QC of staff deliverables, and regulatory and permitting guidance.*

**Aimco Storm Drain Restoration Project Biological Assessment; AIMCO Esplanade Avenue Apartments, LLC.; Pacifica, San Mateo County, California.** SWCA prepared a Biological Assessment suitable for use by the USACE during Section 7 consultation with the USFWS and NOAA Fisheries. Special-status species reviewed included western snowy plover, Coho salmon, and Chinook salmon. *Role: Project Director. Provided overall QA/QC review of deliverables.*

**\* Water System Improvement Program – Bioregional Habitat Restoration Program; San Mateo County, California; San Francisco Public Utilities Commission.** *Role: Regional Environmental Compliance Manager. Oversaw development and restoration of five mitigation sites within San Francisco Peninsula watershed to remove invasive vegetation and trees and create or enhance habitat for special-status species, including California red-legged frog and San Francisco garter snake. Team of botanists and biologists were responsible for QA of contractors' implementation of mitigation efforts as described in Mitigation Monitoring Plans and regulatory permits. Mitigation activities included invasive tree and weed species removal, native grassland and coastal prairie enhancement, seasonal wetland and riparian corridor creation and/or enhancement, and willow riparian habitat reestablishment, among others.*

**\* Water System Improvement Program – Peninsula Region Projects; San Francisco Public Utilities Commission; San Mateo and San Francisco Counties, California.** *Role: Regional Environmental Compliance Manager for Peninsula Region. Oversaw various stages of compliance programs for 10 seismic reinforcement and water system improvement projects on San Francisco Peninsula and within Peninsula watershed; managed team of up to eight environmental inspectors and over 25 biological and archaeological monitors; coordinated preconstruction surveys, monitoring, and relocation for special-status species, including California red-legged frog, San Francisco garter snake (no relocation), Central Coast steelhead, San Francisco dusky-footed woodrat, nesting raptors, and migratory birds, among others; led region's stormwater compliance efforts, including submittal of online Permit Registration Documents, Notices of Termination, and Annual Reports; conducted site inspections and effluent sampling; reviewed contractors' SWPPPs; coordinated with RWQCB on various stormwater and dewatering issues; coordinated prehistoric and historic cultural resource monitoring, testing, and data recovery; oversaw receiving water quality monitoring and agency reporting efforts for potable water discharges; and prepared minor project modifications requiring CEQA review and associated permit amendments.*

## VICTORIA AMATO, M.S., FIRE ECOLOGIST

Ms. Amato is a natural resources planner with a diverse background in fire ecology and resource management. She has been project manager on 40 Community Wildfire Protection Plans (CWPPs) 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 CWPP risk assessments utilizing fire behavior modeling programs and on-the-ground assessments.

Ms. Amato has worked with a variety of land management agencies across the western United States, including the U.S. Forest Service (USFS), Bureau of Land Management (BLM), USFWS, and National Park Service (NPS), studying hazardous fuel reduction, Wildland Urban Interface (WUI) fire mitigation, fire behavior modeling, and monitoring of burned areas.

### YEARS OF EXPERIENCE

16

### EXPERTISE

Fire Management Planning

Wildfire risk assessment

Natural resources management

Forest ecology and management

Fire effects monitoring

Habitat monitoring

Community outreach and youth training

### EDUCATION

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

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

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

### TRAINING

National Incident Management System –IS-00700a, FEMA

USDA Forest Inventory Analysis Training; 2010

Wildland Firefighter Refresher and Arduous Fitness Test, Valencia County Fire Department; 2019-2021

S130/190 Basic Wildland Firefighter ICS for Single Resources and Initial Action Incident, ICS-200, FEMA.

1-100 Introduction to the Incident Command System, FEMA

Ms. Amato is Contract Manager on a contract with the NPS to develop Fire Management Plans (FMPs) and accompanying NEPA documentation for park units across the United States. SWCA has developed FMPs and EAs for parks, including the entire Appalachian Trail and 13 park units in Utah. She has developed and implemented post-fire monitoring plans and was the primary author for a peer-reviewed article discussing the effects of thinning on burn severity in the journal *Forest Ecology and Management*. She has also worked on multiple forest restoration projects and NEPA compliance work on USFS, BLM, NPS, and tribal lands. Through these projects, Ms. Amato has developed her understanding of forest management in a range of cover types, as well as gained valuable experience in the evaluation of fire risk and mitigation. She has been part of SWCA's Science Leadership Program since 2015, sharing this knowledge and experience with her peers and coworkers.

### SELECTED PROJECT EXPERIENCE

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

**Canyon Lane Roadway Improvements EIR; County of San Mateo; Redwood City, San Mateo County, California.** SWCA is preparing an EIR and technical background studies, including a rare plant study, an air quality analysis, fire modeling due to the project's location at the WUI, a biological resources report, and a cultural resources study, for the improvement of Canyon Lane, development of a single-family residence on one parcel, and future development of residences on 11 parcels. The project also involves the construction of new utilities, including a waterline and an underground distribution line. *Role: Fire Ecologist. Developed wildfire assessment and fire behavior analysis to inform EIR development.*

**Lake Wildwood Wildfire Risk Assessment; Under the Trees, Inc.; Nevada County, California.** SWCA worked with Under the Trees to develop a wildfire risk assessment for a high-density residential population in northern California. SWCA utilized robust fire behavior modeling tools to identify priority areas for fuel treatment. *Role: Project Manager. Managed project and served as primary author.*

**TRAINING (CONT'D)**

S290- Intermediate Wildland Fire Behavior Fire Fighter Type II- "red-carded" 2019-2020

NEPA Navigator Training, Archer Institute of Environmental Training; 2012

Forest Vegetation Simulator, Rocky Mountain Research Station; 2006

Teaching Assistant, Forest Management and Silviculture, Colorado State University; 2006

FIREWISE Communities, 2007

Comprehensive NEPA, SWCA Environmental Consultants; 2007

FIREMON Training, U.S. Forest Service; 2003

**MEMBERSHIPS**

Member, Association for Fire Ecology

Member, International Association of Wildland Fire

**South Sacramento Restoration Project EIS; New Mexico Department of Game and Fish and U.S. Forest Service; Otero, New Mexico.** SWCA is developing an Environmental Impact Statement (EIS) for a landscape-scale, 20-year forest restoration project on USFS lands in the Sacramento Mountains. SWCA is responsible for facilitating meetings with agencies and the public and drafting resource specialist reports and the draft and Final EIS. *Role: Environmental Specialist. Served as NEPA resource writer for Native Vegetation Communities and Fire and Fuels Specialist Report.*

**Santa Fe County Community Wildfire Protection Plan (and 5-year Plan Revision); Santa Fe County and City of Santa Fe; Santa Fe County, New Mexico.** SWCA worked with the County and City to develop a CWPP that incorporated risk and hazard assessments of WUI areas. SWCA worked in close cooperation with the USFS in order to identify fuel treatments to complement existing and planned fuel reduction efforts in the Santa Fe Watershed. *Role: Planner / Fire Specialist. Served as primary author.*

**Pope and Hardin Counties Community Wildfire Protection Plans; Southeastern Illinois Regional Planning Development Commission; Pope and Hardin Counties, Illinois.** SWCA developed CWPPs for these adjacent counties, which included extensive community involvement, close work with the USFS Fire and Fuels Specialists, and the integration of existing GIS datasets to deliver recommendations for realistic measures to reduce the ignitability of structures throughout the area and reduce hazardous fuels. *Role: Project Manager. Managed project and served as primary author.*

**Ridge-Manorville-Calverton Community Wildfire Protection Plan; Central Pine Barrens Joint Planning and Policy Commission; Suffolk County, New York.** SWCA developed a detailed community-scale CWPP in order to address wildfire hazards that threatened

residents and watershed health in the Central Pine Barrens Region of Long Island. The project involved extensive public outreach, multiple stakeholder meetings, and a detailed fine-scale wildfire risk and hazard assessment. *Role: Project Manager. Managed project and served as primary author.*

**McKean and Elk Counties Community Wildfire Protection Plans; McKean County and Elk County; McKean and Elk Counties, Pennsylvania.** SWCA assisted the neighboring Counties with developing two CWPPs for the protection of life and property from wildfire. SWCA convened and facilitated Core Team meetings of agency specialists and developed a risk assessment for communities at risk from fire. The Team developed two Draft and Final documents using input from Core Team members and members of the public throughout both counties. *Role: Project Manager. Managed project and served as primary author.*

**Sandoval County Community Wildfire Protection Plan (and 5-Year Plan Revision); Sandoval County; Sandoval County, New Mexico.** SWCA employed collaborative development and strong public involvement techniques to prepare this comprehensive CWPP that the County could use to effectively seek funding for implementation. Further, SWCA was retained to complete a 5-year update to the original plan. *Role: Project Manager. Managed project and served as primary report author.*

**Claunch-Pinto Soil and Water Conservation District and Torrance County Community Wildfire Protection Plan (and 5-Year Plan Revision); New Mexico.** SWCA produced two high-profile plans that coordinated the needs of government agencies and multiple communities and enabled the client to receive future funding for wildfire and WUI mitigation; one of these CWPPs is included in the National Database of State and Local Wildfire Hazard Mitigation Programs as an example of an exemplary CWPP. Further, SWCA was retained to complete the 5-year updates of the plans. *Role: Lead planner / Fire Specialist. Served as primary author.*

**Otero County Community Wildfire Protection Plan; Multiple Agencies; Otero County, New Mexico.** SWCA worked with a large multi-agency working group to develop a CWPP that would address catastrophic fire risk in a diverse WUI. SWCA developed an intricate wildfire risk and hazard assessment that required refining of an existing fuel classification layer to incorporate recent and planned fuel treatment projects on local and landscape scales. The CWPP involved collaborative planning that incorporated a large range of stakeholders. The CWPP is being used to implement recommended fuel reduction projects in a number of high-risk watersheds. *Role: Project Manager. Managed project and served as primary author.*

## ARI PORTER, M.S., FIRE ECOLOGIST

Ms. Porter is an environmental specialist in natural resources, providing project support across the western United States. She has over 4 years of experience in project management, client relationships, public outreach, scientific research, technical writing, and field operations in Colorado and Utah.

Ms. Porter has a Master's in ecology from Colorado State University. Her thesis work focused on aspen regeneration in relation to topographic variables after severe wildfire in Colorado. She has extensive experience in creating and using Bayesian statistical models in R, as well as in geospatial modeling and analysis using GIS. This work led her to collaborate with federal, state, and local entities to restore forest systems after wildfire.

### YEARS OF EXPERIENCE

4

### EXPERTISE

Terrestrial ecology

Post-fire forest monitoring and restoration (primarily Rocky Mountain systems)

GIS spatial analysis and modeling in forest systems

Bayesian statistical modeling in R - biology and ecology

Ecological restoration (forests post-disturbance)

### EDUCATION

M.S., Ecology; Colorado State University, Fort Collins, Colorado; 2019

B.A. with distinction, Biology, c: Ecology and Evolution; Colby College, Waterville, Maine; 2015

Overseas Studies, Wildlife Management Studies, Kenya and Tanzania; School for Field Studies, Beverly, Massachusetts; 2013

### REGISTRATIONS / CERTIFICATIONS

Wilderness First Responder, Utah; 2015

CPR/First Aid, Utah; 2015

### TRAINING

Natural Resource Management and Policy; Colorado State University; 2018

### AWARDS / HONORS

Kurt Gerstle Fellowship

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

**Santa Fe County Community Wildfire Protection Plan Update; Santa Fe County; Santa Fe, Santa Fe County, New Mexico.** SWCA is providing support services to update Santa Fe County's Community Wildfire Protection Plan (CWPP) and improve fuel reduction, public education and outreach, fire response, and emergency management. *Role: Environmental Specialist / Technical writer/editor. Found federal, state, and local funding sources supporting CWPP development, and developed post-fire response resources.*

**Confidential Transmission Line Implementation Support; Confidential Client; Utah.** SWCA is performing preconstruction surveys for sensitive species and rare plants for a proposed transmission line extending approximately 400 miles from Wyoming to Utah. *Role: Environmental Specialist / Field Technician. Assisted with Uinta Basin hookless cactus (Sclerocactus wetlandicus) surveys in Uintah Basin on BLM land.*

**Confidential Transmission Project Local and State Permitting Support; Confidential Client; Wyoming.** SWCA is providing county, state, and federal permitting support for a proposed transmission line running approximately 400 miles from Wyoming to Utah. *Role: Environmental Specialist / Technical writer/editor. Assisting with Wyoming state permit application authorship.*

**Confidential Wind Energy Project; Confidential Client; Kansas.** SWCA provided preconstruction desktop analysis support for the site characterization of a proposed wind farm in southwestern Kansas. *Role: Environmental Specialist. Assisted with site characterization report authorship.*

**Aurora High Point East Pinyon and Dandelion Draw Wetland Delineation; Aurora High Point Metro District; Aurora, Adams County, Colorado.** SWCA performed aquatic resource inventories in support of Clean Water Act Section 404. *Role: Environmental Specialist / Field Technician. Assisted with preconstruction wetland delineation and data collection.*

**Gaylord PA-64 Wetland Delineation; Westside Investment Partners, Inc.; Aurora, Colorado.** SWCA performed aquatic resource inventories in support of Section 404 of the Clean Water Act. *Role: Environmental Specialist. Field Technician: assisted with preconstruction wetland delineation and data collection.*

\* **Master's Thesis: Quaking Aspen Regeneration; Hayman Fire, Colorado.** Designed, planned, and managed a multiyear project examining aspen regeneration after high-intensity, extensive wildfire in relation to topographic variables. Ms. Porter presented results to diverse audiences of forest managers, scientists, and community members. The project aimed to inform forest managers with data on important locations for Quaking aspen conservation. *Role: Master's Student. As the creator and manager of this project, she saw that the project was completed on time, serving as a communication bridge between forest managers, scientists, and her team of three field technicians. She completed 3 months of field surveys (conifer species and aspen), several months of lab work processing tree cores, and wrote a manuscript that is currently in preparation for publishing.*



## ANNE RUSSELL, B.S., GIS SPECIALIST

Ms. Russell is the GIS Technical Lead for SWCA's Rockies Region. She provides leadership as a subject matter and technical expert for the Rockies GIS team through high-level project management and coordination, marketing and business development, training, and development of standards and protocols and GIS processes and workflows. Ms. Russell's expertise for wildfire projects includes providing GIS support to CWPPs, advanced fire behavior and risk assessment modeling, and custom fuel model development.

Ms. Russell contributes data management and GIS deliverables for NEPA, biological, and cultural resource assessments for diverse projects including land management, transmission, oil and gas pipeline projects, and wetland and endangered species habitat mitigations. She is also an experienced graphic designer, with multiple and diverse design projects experience. Her technical expertise includes proficiency with ESRI ArcGIS Pro, ArcInfo Workstation and Desktop, ESRI ArcGIS Online, ESRI Spatial Analyst and 3-D Analyst extensions, IFTDSS, and Microsoft Office applications.

### YEARS OF EXPERIENCE

13

### EXPERTISE

Geographic Information Systems

Data management and systems

General and urban wildlife biology

Environmental Safety and Health

Visual Resource Management (VRM)

Graphic design

### EDUCATION

A.A.S., Geographic Information Technology; Albuquerque Technical Vocational Institute; 2007

A.A.S., Environmental Safety and Health; Albuquerque Technical Vocational Institute; 2005

B.S., Biology; Juniata College, Pennsylvania; 2002

Overseas Studies; University of Newcastle; Newcastle, Australia; 2001

### TRAINING

30-hour OSHA General Industry Training; 2002

40-hour Hazardous Waste Operations Training; 2003-2004

8-hour Confined Space Entry Training; 2003-2004

### SELECTED PROJECT EXPERIENCE

**Lake Wildwood Community Wildfire Protection Plan Fire Modeling; Under the Trees, Inc.; Lake Wildwood, Nevada County, California.** SWCA provided custom fuel mapping, risk assessment, and fire behavior analysis for a community wildfire protection for Lake Wildwood in Nevada County, California. *Role: GIS Lead. Developed custom fuel model, fire behavior models, and composite risk assessment, and created and edited maps for project and reports.*

**Santa Clara County Community Wildfire Protection Plan; Santa Clara County Fire Department; Santa Clara County, California.** SWCA developed a high-end CWPP and Unit Plan for the 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 comprises a comprehensive risk/hazard analysis that includes an assessment of wildland and urban fuels. *Role: GIS Specialist / Lead. Created and edited maps and posters for project and reports; maintained spatial datasets used for analyses and reporting; and coordinated scheduling, products, quality control, and spatial data organization with Project Manager and other team members.*

**Kenai Peninsula Borough Environmental Services; Kenai Peninsula Borough Purchasing and Contracting Department; Kenai Peninsula Borough, Alaska.** SWCA is combining over 17 community-level CWPPs into one landscape-level CWPP that will serve the entire Kenai Peninsula. This includes preparing a story map to gather information from the public as well as disseminate information to the rural and remote communities in the project area. *Role: GIS Lead. Compiling CWPP data into landscape-level data sets, preparing story map and report maps, and coordinating with project team to manage and schedule GIS work.*

**Santa Fe County Community Wildfire Protection Plan Update; Santa Fe County; Santa Fe County, New Mexico.** SWCA is updating the County's existing CWPP (developed by SWCA in 2008), and also preparing a story map to help engage the public with the document. *Role: GIS Lead. Developing custom data for fire model, fire behavior outputs, and fire risk assessment model; preparing story map and report maps; and coordinating with client and project team to manage and schedule GIS datasets and deliverables.*

**Grant County Community Wildfire Protection Plan Update; Grant County; Grant County, New Mexico.** SWCA updated the County's 2015 CWPP, which included a new approach to risk assessment modeling using the Interagency Fuel Treatment Decision Support System (IFTDSS) to build landscapes and create fire behavior outputs. *Role: GIS Lead. Developed fire behavior outputs and fire risk assessment model, and prepared report maps.*

**Elk and McKean Counties Community Wildfire Protection Plans; Elk County and McKean County; Elk and McKean Counties, Pennsylvania.** SWCA was selected by McKean and Elk Counties to develop a Countywide CWPP for each county. *Role: GIS Specialist/Lead. Created and edited maps and posters for project and reports; compiled and maintained spatial datasets used for analyses and reporting; developed risk assessment model; and coordinated scheduling, products, quality control, and spatial data organization with Project Manager and team members.*

**Pope and Hardin Counties Community Wildfire Protection Plans; Southeastern Illinois Regional Planning Development Commission; Pope and Hardin Counties, Illinois.** SWCA developed CWPPs for these adjacent counties, which included extensive community involvement, close work with the USFS Fire and Fuels Specialists, and the integration of existing GIS datasets to deliver recommendations for realistic measures to reduce the ignitability of structures throughout the area and reduce hazardous fuels. *Role: GIS Specialist/Lead. Created and edited maps and posters for the project and reports; compiled and maintained spatial datasets used for analyses and reporting; developed risk assessment model; and coordinated scheduling, products, quality control, and spatial data organization with Project Manager and other team members.*

**Valencia County Fire Maps; Valencia County, New Mexico; County of Valencia.** SWCA assisted Valencia County in developing logistical georeferenced pdf maps for use online, on tablets, and in the field by fire officials. *Role: GIS Specialist/Lead. Organized and compiled spatial datasets, developed maps, worked with the client to ensure accuracy and appropriate representation of spatial datasets, and trained the client in use of ArcMap to update the map sets.*

**Mobile Wildland Fire Workshop Development; Claunch-Pinto Soil and Water Conservation District; Torrance County, New Mexico.** SWCA assisted the District in the development of a mobile wildland wildfire educational workshop. *Role: Graphic Designer. Designed and edited large multi-panel mobile poster display; coordinated with Project Manager and Team for content editing, compilation, and design components; and designed and edited associated handouts and other materials.*

**Bernalillo County Community Wildfire Protection Plan; Bernalillo County, New Mexico; Middle Rio Grande Conservancy District.** As this CWPP spanned four counties within the Middle Rio Grande Conservancy District, SWCA's recommendations were based on our performance of a comprehensive risk assessment that incorporated numerous data layers collected from municipal, tribal, county, state, and federal agencies. The project was completed within budget and on schedule. *Role: GIS / CADD Technician. Created and edited maps and posters for project and reports.*

**BLM New Mexico Lease Sale Environmental Assessment Support; U.S. Bureau of Land Management; New Mexico, Kansas, Oklahoma, and Texas.** SWCA is working with BLM New Mexico Lease Sale to further develop and support issues-based Environmental Assessments for oil and gas lease sales for the BLM in multiple states. *Role: GIS Lead. Compiling and managing large multi-state Enterprise geodatabases and other datasets; using those data for detailed site analysis and calculations; preparing calculations files and maps for project team and reports.*

**Estancia Basin Watershed Monitoring; Claunch-Pinto Soil and Water Conservation District; Bernalillo and Torrance Counties, New Mexico.** For this 5-year contract, SWCA monitored forest and watershed health in relation to forest thinning on the eastern slopes of the Manzano Mountains to evaluate the effectiveness of thinning treatments. *Role: Data Manager. Developed data management system; managed multiple datasets; performed data analysis for fire, water, and forest thinning projects; and assisted with field work and site maintenance.*

## LAURA MORAN, B.S., B.L.A./M.U.P., SENIOR ECOLOGICAL RESTORATION TEAM LEAD

Ms. Moran is a specialist in natural resources management and ecological restoration with over 30 years of experience consulting with federal, regional, and local jurisdictions on environmental projects throughout California. She got her early training as a biologist at a small engineering firm, working on everything from site planning to construction documents. She brings her analytical, managerial, and policy-making skills to bear on projects dealing with ecological restoration, climate change adaptation, wetland delineation and mitigation, habitat conservation, and landscape level natural resource planning.

### YEARS OF EXPERIENCE

34

### EXPERTISE

Ecological restoration

Biology

Wetland delineation and restoration and mitigation design

Climate change

Permitting

CEQA

NEPA

### EDUCATION

B.L.A./M.U.P. Program; City University of New York; 1988

B.S., Biology; St. Lawrence University; 1985

### REGISTRATIONS / CERTIFICATIONS

California Climate College; California Department of Fish and Wildlife

Habitat Evaluation Procedure (HEP) Certification; U.S. Fish and Wildlife Service

California Rapid Assessment Methodology (CRAM) Certified

Wetland Delineation Certification

Managing Habitats for CA Red-Legged Frog Certification

Climate Smart Riparian Restoration Certification

Ms. Moran's focus is on feasibility and implementation so that degraded habitats and environments are restored and functioning at a higher level. She has directed environmental impact analyses (CEQA/NEPA), biological resource inventories, multi-agency permitting, vulnerability assessments, and habitat restoration and monitoring plans. She plays a pivotal role in integrating the work of multiple specialties to help resource agencies and project proponents achieve their sustainability and resilience goals while balancing environmental stewardship and project design. Under Ms. Moran's management, staff have created multiple vegetation management, habitat conservation, mitigation, and restoration plans from concept through construction within a variety of sensitive California habitats.

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

**\* American River Parkway Natural Resources Management Plan; Sacramento County Regional Parks; Sacramento, California.** *Role: Principle in Charge. Senior oversight of a comprehensive management plan to balance preservation of natural and cultural resources with the enhancement of recreation and other human uses of parkway, which is designated as a Wild and Scenic River. Large component of plan addresses best practices for vegetation management pertaining to fire risk reduction, invasive species control, and native revegetation for post-fire and flood control mitigation areas. NEPA/CEQA, permitting, grant support and interagency coordination.*

**\* Meadowood Estates Subdivision Project, EIR, FMP/VMP; San Mateo County.** *Role: Principal Biologist. Worked with project proponent's biologist and Central County Fire Department to develop Fire Management and Vegetation Management plans for preliminary construction and final lot construction in the WUI to meet requirement of Governor Gavin Newsom's issued Executive Order N-05-19. Plans balanced special-status plant and animal species, jurisdictional drainages, and oak woodland preservation with state and County guidelines for fire risk reduction through vegetation management. These plans were incorporated into EIR and its MMRP.*

**\* Bear Creek Redwoods Vegetation Management Plans; Midpeninsula Regional Open Space District; Bear Creek Redwoods Open Space Preserve, Santa Clara County, California.** *Role: Senior Restoration Ecologist. Assisted with development of invasive species management plan, integrated pest management plan, and mitigation and monitoring plan for sensitive species adjacent to public access areas. Provided focused habitat restoration and enhancement plans for western pond turtle.*

**AWARDS / HONORS**

On the River's Edge Competition, Salt Lake County, Utah "Jordan Rising" - Winner People's Choice and Conservation Innovation Awards

**MEMBERSHIPS**

SER, CNPS, SWS

\* **Lake Chabot Regional Park Campus Modernization Firesafe Landscape Plan; Castro Valley, Alameda County, California.** Role: Landscape Architect / Restoration Ecologist. Developed firesafe landscape design plan that utilized native fire-resistant plants, provided defensible space around proposed structures, and reduced wildfire risk

\* **Bear Gulch Upper Diversion Fish Passage, Woodside, San Mateo County, California** Role: Principal Biologist/Restoration Specialist. Conducted oversight of environmental permitting, biological monitoring, and stormwater compliance required to construct fish passage improvement project to benefit steelhead trout; prepared habitat mitigation plan, tree preservation plan, and long-term operations and maintenance

monitoring and vegetation management plan; and worked closely with Cal Water on agency coordination and compliance, including long-term mitigation plan for water diversion projects.

\* **Los Gatos Creek Bridge and Guadalupe River Restoration Projects; San Jose, Santa Clara County, California.** Role: Principal Restoration Specialist. Revised and adapted existing restoration plans to provide feasible restoration components to benefit steelhead, western pond turtle, and California red legged frog habitat adjacent to bridge improvements along the railroad corridor; working with CalTrain on long-term mitigation strategy for cumulative project impacts along corridor; providing grant assistance for stewardship and education programs to improve safe, clean access to watershed resources; and provided post-fire recovery (homeless source) vegetation management strategy as part of long-term monitoring and maintenance program. Los Gatos Creek Bridge restoration is in year 3 of monitoring.

\* **Coyote Point Eastern Promenade Renovation Project, Coyote Point Recreation Area, San Mateo County, California.** Role: Restoration, Permitting, and Biology Lead. Managed biological and regulatory permitting tasks for renovation of shoreline promenade within recreation area; provided specifications for native plant species to replace/supplement recreation area renovation landscape; prepared tree removal and maintenance plan to coincide with County Park's Vegetation Management Plan policies for risk reduction; and provided grant support.

\* **Tolay Lake Master Plan; Sonoma County Parks; Sonoma County, California.** Role: Senior Biologist / Restoration Specialist. Led review of biological and hydrological studies to identify opportunities and constraints for enhancement of wide range of habitat types, and identified serpentine habitat with opportunities to restore and enhance habitat for California tiger salamander, California red-legged frog, and ponded, seasonal, and riparian wetlands. Habitat restoration goals and identified projects were incorporated into master plan. Master Plan EIR was certified in January 2019.

\* **Stevens Creek Corridor Parks Master Plan; Cupertino, Santa Clara County, California.** Role: Senior Biologist / Restoration Specialist. Led biological studies, stream and meadow restoration opportunities and constraints analysis, regulatory permitting support, and environmental education opportunities for master plan. Restoration focuses on McClellan Ranch Preserve portion of project, which provides opportunities for stream, wetland, meadow, off channel pond, and upland habitat restoration for variety of special-status species.

\* **Joseph D. Grant County Park California Red-Legged Frog and California Tiger Salamander Pond Improvements. Santa Clara County, California.** Role: Principal Biologist / Restoration Specialist. Oversaw population data review and analysis to plan for restoration and enhancement of series of ponds for benefit of California red-legged frog and California tiger salamander, and ranked feasibility of pond restoration relative to climate change water budget projections.

\* **Former Oak Knoll Naval Hospital Site; Oakland, Alameda County, California.** Role: Senior Project Manager / Restoration Lead. Prepared biological assessment and conceptual creek restoration plan, tree mitigation, and open space management plan for proposed development of hospital site; coordinated interagency permitting for project; participated in public outreach sessions; coordinated with City planning staff; prepared biological resources section and contributed to hydrology section of supplemental EIR, completed in 2007; and created mitigation and monitoring plan for complex project involving all phases of proposed buildout through 2017 (demolition, remediation, restoration, construction, and monitoring). Key biological issues included Alameda whipsnake habitat monitoring, 1.3 miles of riparian wetland restoration, oak woodlands, and native grasslands preservation and enhancement.



## JESSIE HENDERSON-MCBEAN, B.S., BIOLOGIST

Ms. Henderson-McBean is a biologist with biological resource experience throughout the Bay Area, Central Coast, and Central Valley. She is an experienced biological surveyor who uses various sampling techniques and protocols to conduct environmental inspections, preconstruction surveys and biological monitoring for a variety of projects. Her experience includes extensive surveys in the Carrizo Plains focusing on nesting bird, avian point count, and avian fatality surveys, as well as radio telemetry tracking, wildlife camera deployment, spotlighting surveys for San Joaquin kit fox, and spotlighting and crepuscular surveys for burrowing owl.

Ms. Henderson-McBean has completed focused preconstruction surveys, biological technical reports, and conducting habitat assessments for numerous species throughout the San Francisco Bay Area, including burrowing owl, Swainson's hawk, western snowy plover, California red-legged frog, San Francisco garter snake, San Francisco dusky-footed woodrat, western pond turtle, California tiger salamander, Santa Cruz long-toed salamander, salt marsh harvest mouse, and Ridgway's rail.

### YEARS OF EXPERIENCE

10

### EXPERTISE

Environmental compliance and construction monitoring

Natural resource surveys

Bird behavior/nesting surveying and identification

California red-legged frog, San Joaquin kit fox, burrowing owl preconstruction surveys

San Joaquin kit fox and burrowing owl spotlighting nighttime surveys

### EDUCATION

B.S., Wildlife, Fish and Conservation Biology; University of California, Davis; 2012

### PERMITS

California Department of Fish and Wildlife Scientific Collecting Permit (SC13432); 2016

### TRAINING

California Red-legged Frog Workshop, Alameda County Resource Conservation District; 2015

California Tiger Salamander Workshop, Elkhorn Slough Coastal Training Program; 2014

Burrowing Owl Workshop Training, Elkhorn Slough Coastal Training Program; 2014

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

**Enhanced Vegetation Management Program; Utility Client; Multiple Counties, California.** SWCA provided on-call support for the AWRP/EVM Program by deploying experienced natural resource and cultural resource specialists, often under rapid response times, to basecamps throughout the client's service territory. SWCA was tasked with conducting field coordination, botanical surveys, special-status species surveys, wetland and riparian mapping, cultural resource identification and flagging, environmental trainings, biological and cultural monitoring, and meetings with local land management agencies. *Role: Biologist. Coordinated with environmental leads and on-site basecamp leads, conducted preconstruction surveys, provided environmental awareness training to crews, and performed biological monitoring during tree trimming and removal work.*

**\* City of Santa Cruz North Coast Pipeline Phase 3, Rehabilitation Project; Santa Cruz County.** The North Coast Pipeline Phase 3 Rehabilitation Project replaced approximately 16,500 linear feet of raw water transmission main supplying municipal water to the City of Santa Cruz. Running parallel to Highway 1, this project crossed and impacted California red-legged frog habitat. *Role: Designated Biologist. Acted as designated biologist, approved by USFWS and CDFW to handle and relocate California red-legged frog under project Biological Opinion (08EVEN00-2015-F-0416); conducted daily sweeps of access roads and work areas for rare plants and sensitive wildlife including California red-legged frog and provided guidance on adjusting work activities for avoidance; and observed over 300 California red-legged frogs, from larvae to adults, during course of monitoring road grading, vegetation clearing, excavations, and Best Management Practice installation activities.*

**PV Water Blend Well Improvements Project Environmental Permitting and Documentation Support; Pajaro Valley Water Management Agency; Monterey and Santa Cruz Counties, California.** SWCA provided environmental permitting and document sufficiency assessments for a water management project in Watsonville. The project included construction of additional water storage tanks and a disk filtration system within the agency's existing water treatment facility and the addition of two new distribution pipelines to better serve Santa Cruz and Monterey County customers. *Role: Biologist. Performed preconstruction surveys for California red-legged frog and*



**MEMBERSHIPS**

Member, The Wildlife Society; 2014–present

Member, Raptor Research Foundation, 2015–present

*nesting birds; provided bi-weekly nesting bird surveys throughout the nesting bird season for duration of project construction; worked with contractor throughout construction activities to avoid impacts to nesting birds; and created environmental training brochure and provided environmental awareness trainings to contractor.*

**AIMCO Storm Drain Restoration Project Biological Assessment; AIMCO Esplanade Avenue Apartments, LLC; Pacifica, San Mateo County, California.** SWCA prepared a Biological Assessment suitable for use by the USACE during Section 7 consultation

with the USFWS and NOAA Fisheries. Special-status species reviewed included western snowy plover, Coho salmon, and Chinook salmon. *Role: Biologist. Conducted nesting bird surveys focusing on western snowy plover.*

**Santa Clara Valley Water District Biological Monitoring; Ranger Pipelines Inc.; San Jose, Santa Clara County, California.** SWCA provided nesting bird surveys, nesting bird deterrence, and ongoing biological monitoring services for a water pipeline project site supporting nesting red-tailed hawk. SWCA also provided environmental awareness program training. *Role: Biologist. Conducted nesting bird and raptor surveys throughout project construction, and provided monitoring of red-tailed hawk nest and guidance to contractor to adjust work activities for avoidance.*

**Travis Air Force Base Gas Pipeline System Upgrade Project; PG&E; Solano County, California.** SWCA provided biological surveys and monitoring services to assure compliance with mitigation measures from the Project ERTC. Species of concern include: Contra Costa goldfields, vernal pool tadpole shrimp, California tiger salamander, burrowing owl and nesting birds. *Role: Biologist. Performed preconstruction surveys for sensitive species presence and nesting birds. Providing monitoring for special-status species during construction activities, crew environmental awareness training, communicating with the client about project concerns and producing daily activity reports.*

**L-191-1 Site 7 Pipeline Replacement Biological Monitoring; PG&E; Contra Costa County, California.** SWCA provided biological survey and monitoring services to assure compliance with mitigation measures from the Project Environmental Release To Construction and East Bay Regional Park Encroachment Permit. Species of concern included Alameda whipsnake and nesting birds. *Role: Biologist. Provided monitoring for special-status species during construction activities and crew environmental awareness training, communicated with client about project concerns, and produced daily activity reports.*

**PG&E's Valve Automation / Valve Repair and Replacement Program Environmental Services; Surf 2 Snow Environmental Resource Management; Multiple Counties, California.** SWCA provided environmental services in support of the program throughout PG&E's service territory, including preparation of permit applications, agency consultation, project biological review, preconstruction nesting bird surveys, special-status species surveys, and biological monitoring/training. *Role: Biologist. Conducted preconstruction surveys for sensitive species presence and nesting birds/raptors, conducted crew environmental awareness training and special-status species monitoring during construction activities, and produced daily activity reports.*

**1300 Block Cedar Street Paving Project Biological Study; Walt Wyckoff; Montara, San Mateo County, California.** SWCA completed a biological study, consisting of background research and a site visit, and prepared a biological report. *Role: Biologist. Conducted habitat assessment surveys for California red-legged frog and San Francisco garter snake.*

**South Lake Solar Project Environmental Impact Report; County of Fresno Planning Department; Fresno, Fresno County, California.** SWCA is preparing an EIR for an up to 80-megawatt (MW) photovoltaic solar energy facility, up to 80 MW battery storage system, and 70 kilovolt (kV) overhead generation tie line on an approximately 585 acres in western Fresno County. Key issues addressed in the EIR included air quality impacts resulting from construction emissions, biological impacts from the loss of Swainson's hawk foraging habitat, and the potential for cumulative impacts caused by the project. *Role: Biologist. Drafted EIR biological resources section.*

## ERICH SCHICKENBERG, B.S., ARBORIST

Mr. Schickenberg received a Bachelor of Science degree in Botany from San Francisco State University in 2012. His studies focused on plant taxonomy, plant anatomy, plant ecology, and mycology. He has worked in a wide variety of habitats throughout California, and his experience includes special-status plant surveys, invasive species management, restoration monitoring, native seed collection, restoration planting, mitigation land monitoring, and vegetation community mapping. Mr. Schickenberg has extensive experience providing biological services to quarry and mining projects, including the Santa Clara County Permanent Quarry project in Cupertino.

Mr. Schickenberg has training in wetland delineation and plant pathogen identification, and extensive experience working with various sensitive wildlife species, including San Francisco garter snake, California red-legged frog, California tiger salamander, salt marsh harvest mouse, and Alameda whipsnake. He is also an International Society of Arboriculture (ISA)-certified arborist and an expert in environmental compliance, including biological monitoring and stormwater inspection.

### YEARS OF EXPERIENCE

7

### EXPERTISE

Project management  
Special-status flora and fauna surveys  
Plant ecology  
Restoration planning and monitoring

### EDUCATION

B.S., Botany; San Francisco State University, San Francisco, California; 2012

### REGISTRATIONS / CERTIFICATIONS

ISA Certified Arborist No. #WE-10211A

### TRAINING

40-hour basic wetland delineation  
California Department of Fish and Wildlife rare plant survey protocols  
Carex Workshop  
Brassicaceae Workshop  
Forest Diseases Workshop

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

\* **Permanente Quarry; Cupertino, Santa Clara County, California.** Managed multiple aspects of Santa Clara County SMARA Conditions of Approval (COA) compliance of long-term Reclamation Plan at 3,500-acre quarry. *Role: Biologist. Coordinated subcontractors; conducted tree and plant surveys, storm water management and compliance, BMP installations, mining safety, and restoration and reclamation compliance; prepared COA compliance report presented to County on annual basis; and assisted in monitoring of revegetation test plots and associated data analysis.*

\* **Bat Emergence Surveys and Breeding Bird Surveys; Confidential Client; Santa Clara County, California.** *Role: Biologist. Assisted with systematic area-confined breeding bird nest searches for confidential client conducting geologic exploration in grassland, chaparral, forested and riparian habitats, and conducted breeding bird surveys along historic and green-field access roads prior to grading activities and within proposed drill pads. When nests were discovered, established buffers using construction flagging and conducted monitoring to determine when breeding activities were complete or nests predated. Worked closely with project personnel to ensure no nests were lost as result of standard operations, and assisted with bat emergence surveys to determine if bat roosts were present in any proposed work areas prior to work initiation.*

\* **Santa Clara County Bridge Scour Biological Studies and Permitting; Santa Clara County, California.** *Role: Biologist. Oversaw team conducting vegetation monitoring for 12 bridge sites and prepared annual vegetation monitoring reports.*

\* **Santa Margarita Quarry Expansion Project; Hanson Aggregates; Santa Margarita, San Luis Obispo County, California.** Hanson Aggregates is applying for a modification to an existing Conditional Use Permit and seeking approval for a Reclamation Plan Amendment to expand the existing operations of the Santa Margarita Quarry, a hard-rock

aggregate mining facility. *Role: Biologist. Conducted oak woodland assessment and assisted with preparation of oak woodland mitigation plan to identify suitable coast live oak woodlands for preservation, in compliance with County of San Luis Obispo compensatory mitigation requirements pursuant to CEQA.*

\* **Pilarcitos Quarry Biological Surveys; Vulcan Materials Company; San Mateo County, California.** The Pilarcitos Quarry is a 53-acre aggregate mining facility located on approximately 593 acres just east of Half Moon Bay. As part of the planned expansion and ongoing operations, and in compliance with the USFWS Biological Opinion (81420-2008-F-0294-1), West Coast Aggregates placed a

conservation easement on 192.5 acres of the northern portion of the property, and constructed two mitigation ponds to provide habitat for federally listed California red-legged frog and San Francisco garter snake. *Role: Biologist. Conducted invasive weed mapping and California red-legged frog surveys during post-construction monitoring of on-site biological resources, and successfully identified California red-legged frog on-site during surveys.*

\* **Antonio Mountain Ranch Mitigation Bank; Placer County, California.** *Role: Biologist. Performed hydrologic monitoring of aquatic resources and performed brachiopod surveys in support of completing mitigation bank enablement requirements on a site containing extensive vernal pool, perennial marsh, and seasonal wetland habitat*

\* **Breuner Marsh Restoration Project; East Bay Regional Parks District; Contra Costa County, California.** This project involved the restoration of previously filled tidal marsh habitats, enhancement of marsh transition zones, and creation of seasonal wetlands and passive recreation opportunities on over 150 acres of land. The site contains large expanses of tidal marsh wetlands and associated federally endangered species such as salt marsh harvest mouse and Ridgeway's (California) clapper rail. *Role: Biologist. Approved by USFWS project biological monitor; monitored for salt marsh harvest mouse and Ridgeway's rail during various project activities; monitored extensive wetland vegetation removal phase, which included observation of over 130 salt marsh harvest mice; and implemented avoidance measures to prevent take of animals during the vegetation removal process.*

\* **Mare Island Dry Dock Fish Salvage; Vallejo, California.** Mothballed vessels from the National Defense Reserve Fleet in Suisun Bay are brought to the dry docks at the former Mare Island Naval Shipyard to be recycled under contract by Allied Defense Recycling. In accordance with permit requirements of the USFWS, NOAA Fisheries, and CDFW, biologists are required to be present during final stages of dewatering to salvage (rescue) stranded fish from the dry dock. Captured fish were placed in aerated holding coolers, identified to species, counted, and measured before being returned to the Mare Island Channel of the Napa River. *Role: Biologist. Assisted in multiple salvages and has captured and identified several native and invasive fish species.*

\* **Sherman Island Whale's Mouth Wetland Restoration Project; Ducks Unlimited, Inc. and California Department of Water Resources; Sacramento County, California.** This is a habitat restoration project on Sherman Island, located in the extreme western Delta near the confluence of the Sacramento and San Joaquin Rivers, would restore approximately 600 acres of palustrine wetlands on lands owned by the Department of Water Resources (DWR), which are currently managed for flood-irrigated pasture lands. This project is part of ongoing restoration efforts by DWR to stop or reverse subsidence in the delta, create wildlife habitat, and sequester atmospheric carbon. *Role: Biologist. Assisted with permitting process, overseeing several special-status plant surveys and assisting with associated reports.*

\* **San Vicente Redwoods Public Access Plan; Santa Cruz County, California.** The San Vicente Redwoods is an approximately 8,500-acre property located in the Santa Cruz Mountains. The Conservation Vision for the property envisions integration of preservation, restoration, and sustainable timber harvesting with research, education, and recreation, and is the result of a successful collaboration between Land Trust of Santa Cruz County and Save the Redwoods League, with additional assistance from six other organizations. *Role: Biologist. Assisted with biological resources surveys for planned extensive multi-use trail system on property.*

\* **Wavecrest Coastal Trail Northern and Southern Alignments; Half Moon Bay, San Mateo County, California.** *Role: Biological Monitor. Conducted biological monitoring during construction activities for California red-legged frog, San Francisco garter snake, and San Francisco dusky-footed woodrat; conducted preconstruction wildlife surveys and led a special-status plant survey for Choris' popcorn flower; involved in Southern Alignment portion of project and assisted with preparation of biological constraint analysis for wildlife and Environmentally Sensitive Habitat Areas (ESHAs), and results of analysis were incorporated into trail location and design planning to limit impacts to ESHAs and wildlife species.*

## LEROY LAURIE, B.S., CULTURAL RESOURCES LEAD

Mr. Laurie is an archaeologist and cultural resources lead with cultural resource project experience throughout California and Nevada. He has conducted work in a variety of cultural and geographic regions including, but not limited to, the Sierra Nevada, Great Basin, San Joaquin Valley, Central and Coast Ranges, Mojave and Sonoran Deserts, San Francisco Bay area, and Yosemite Valley. In addition to the organization and execution of field projects, he has been the primary or contributing author to several planning-level documents for large- and small-scale projects.

Mr. Laurie has worked on a variety of cultural resources studies and has helped manage and implement several Phase I and Extended Phase I studies. He has authored or co-authored numerous technical reports and cultural resources sections for EIRs, Environmental Assessments, and Expanded Initial Studies. Mr. Laurie has technical experience in archaeological fieldwork, laboratory analyses, archaeological testing plans, and graphics and mapping. He has been the primary point of contact for Native American coordination for CEQA and NHPA Section 106 compliance projects.

### YEARS OF EXPERIENCE

18

### EXPERTISE

Archaeology

Report preparation

Cultural resources analysis

Mapping

Graphic Design

Molluscan Identification and Analysis

### EDUCATION

B.S., Social Sciences, e: Env.

Geography, m:

Anthropology/Geography; California Polytechnic State University, San Luis Obispo; 2001

### PERMITS

USDA Forest Service Archaeological Investigations Permit (LAR9058), Field Director; SCE Service Territory within Federal Lands

USDA Forest Service Archaeological Investigations Permit (BDFSWCA01), Field Director; San Bernardino National Forest - San Jacinto and Arrowhead Ranger Districts

U.S. Bureau of Land Management Cultural Resource Use Permit (CA-17-23), Field Director; CA

### SELECTED PROJECT EXPERIENCE

**Enhanced Vegetation Management Program; Utility Client; Multiple Counties, California.** SWCA provided on-call support for the AWRR/EVM Program by deploying experienced natural resource and cultural resource specialists, often under rapid response times, to basecamps throughout Client's service territory. SWCA was tasked with conducting field coordination, botanical surveys, special-status species surveys, wetland and riparian mapping, cultural resource identification and flagging, environmental trainings, conducting biological and cultural monitoring, and meeting with local land management agencies. *Role: Cultural Resources Specialist. Conducted records search, Native American Consultation, and background and archival research.*

**North American Electric Reliability Corporation Priority II Environmental Services; Pacific Gas and Electric Company; Various Counties, California.** SWCA provided environmental management and biological support services to assist Pacific Gas and Electric Company (PG&E) with programmatic support for the National Electric Reliability Corporation (NERC) compliance program on the modification of over 400 electric transmission structures on approximately 60 transmission lines throughout California. For each NERC project, SWCA completed a resource constraints review and analysis, identified permits and regulatory approvals, addressed California Public Utilities Commission (CPUC) General Order 131-D compliance, and drafted release to construction documents. Additional services included resource surveys, construction monitoring, and GIS mapping. *Role: Archaeologist. Assessed cultural resources sensitivity and risk for hundreds of PG&E transmission line infrastructure improvement projects; provided management recommendations; conducted necessary fieldwork; and prepared desktop reviews and cultural resources reports.*

**Confidential Electric Transmission Project Proponent's Environmental Assessment; Confidential Client; San Luis Obispo County, California.** SWCA is providing planning and permitting support for a new 230 kV/70 kV substation, 8 miles of new aboveground 70 kV power line, 6 miles of reconductoring of a 70 kV line, and a 230 kV interconnection. Services include cultural, biological, and paleontological resource surveys; PEA preparation; permit to construct application filing and noticing; and post-filing CEQA and permitting support. The application for Permit to Construct was filed in

**TRAINING**

First Aid / CPR Certification, American Red Cross; 2008

Competent Person / Trench Safety Certification (8-Hour), United Rentals; 2007

**MEMBERSHIPS**

Member, Society for California Archaeology

January 2017 and the PEA is under CEQA review (Application No. A.17-01-023). *Role: Cultural Resources Lead. Conducted records search, Native American Consultation, and background and archival research, and prepared archaeological technical reports.*

**Morro Bay-Templeton 230kV Tower 0/4 Replacement Project Extended Phase I of a Portion of CA-SLO-499; PG&E; Morro Bay, San Luis Obispo County, California.**

SWCA conducted an Extended Phase I study including the excavation of 14 shovel test units within the project's Area of Direct Impact. *Role: Cultural Resources Specialist. Conducted records search, Native American Consultation, and background and archival research; acted as field director for excavations; and prepared technical report summarizing findings and providing management recommendations.*

**Diablo Canyon Power Plant 500 kV Tower and Owner-Controlled Area Camera**

**Tower Access Project Environmental Services; PG&E; San Luis Obispo County, California.** SWCA conducted biological and cultural resources surveys, reporting, training, and monitoring for the project. *Role: Cultural Resources Specialist. Conducted records search, Native American Consultation, and background and archival research, and prepared archaeological technical report.*

**Alamo Water Tank Replacement Environmental Services; Golden State Water Company; Los Osos, San Luis Obispo County, California.** SWCA is preparing technical studies and the CEQA environmental document for the demolition and replacement of an existing 84,000-gallon bolted steel reservoir with a new 84,000-gallon welded steel reservoir, as well as construction of a driveway to provide access to the site, in the community of Los Osos. *Role: Cultural Resources Specialist. Conducted archaeological survey and Native American outreach.*

**Bello Bridge Replacement Environmental Services; Quincy Engineering Inc.; Pismo Beach, San Luis Obispo County, California.**

SWCA is providing environmental services, including preparation of all CEQA/NEPA documentation, technical studies, and permitting, for the replacement of the Bello Street bridge over Pismo Creek in the city of Pismo Beach. Due to sensitive archaeological resources in the area, SWCA also performed an Extended Phase I Archaeological Survey of the project area. *Role: Cultural Resources Specialist. Conducted archaeological survey and Expanded Phase I, and prepared associated technical reports.*

**Butano Creek Bridge Feasibility Study; Quincy Engineering Inc.; Pescadero, San Mateo County, California.** SWCA compiled background data for the project, ultimately proposing a two-phased approach to complete the feasibility-level environmental evaluation of the project consisting of an initial constraint memorandum, mapping, and a detailed environmental review to be incorporated into the study. SWCA also prepared a Preliminary Environmental Analysis Report to determine initial environmental constraints for incorporation into the Draft Feasibility Study Report. *Role: Cultural Resources Specialist. Reviewed background materials, conducted literature review, and prepared constraints document.*

**Seawall Archaeological and Biological Monitoring; City of Pismo Beach; Pismo Beach, San Luis Obispo County, California.**

SWCA conducted archaeological and biological monitoring for the Emergency Upper-Bluff Stabilization Project in Pismo Beach, which included stabilizing the natural coastal bluff erosion taking place along the bluff edge of Price Street, threatening to undermine the road and sidewalk and impact existing utility pipelines and other infrastructure. *Role: Cultural Resources Specialist. Conducted archaeological monitoring during stabilization.*

**Concord Reuse Project Environmental Impact Report; City of Concord; Concord, Contra Costa County, California.** SWCA is currently preparing an EIR for the Concord Reuse Project (CRP) Specific Plan for the City of Concord. The CRP Specific Plan addresses a phased mixed-use development on approximately 2,300 acres of the former Concord Naval Weapons Station site. The project would include up to 13,000 residential units and 8.4 million square feet of commercial/campus/institutional uses, and greenway and park uses. SWCA successfully published the Notice of Preparation on schedule and under budget. *Role: Cultural Resources Specialist. Conducted records search, Native American Consultation, and background and archival research, and prepared archaeological technical report.*



## ANNA BELK, M.A., GIS SPECIALIST

Ms. Belk is the GIS specialist that provides support for projects in northern California. She provides maps, analysis, and survey collection resources for project managers and SWCA clients. Ms. Belk has a background in environmental science related to climate and ocean science and using GIS for natural resource and conservation planning. She is an experienced user of ESRI ArcGIS pro, ArcMap, ArcGIS online, Collector, Survey123, and ENVI software, and has additional technical training in spatial analysis using R, programming using python, and remote sensing.

### YEARS OF EXPERIENCE

3

### EXPERTISE

Esri GIS mapping software and programming

### EDUCATION

M.S., Climate Science: Ocean Atmospheric Dynamics; University of California Berkeley; 2019

Graduate Certificate Program, Geographic Information Science and Technology; University of California Berkeley; 2019

B.S., Marine Science; University of California Berkeley; 2017

Certification, Business for Arts, Sciences, and Engineering; Hass School of Business BASE Program; 2017

### TRAINING

ESRI Geospatial Data Management

### AWARDS / HONORS

Prior ESRI GIS Dangermond Fellow

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

#### **Fire Fuel and Invasive Weed Reduction Program Environmental Compliance; Sewer Authority Mid-Coastside; Half Moon Bay, San Mateo County, California.**

SWCA is providing environmental compliance services including herding coordination and monitoring for the Sewer Authority Mid-Coastside (SAM) Fire Fuel and Invasive Weed Reduction Program in Half Moon Bay. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

#### **Concord Reuse Project Specific Plan CEQA Analysis; City of Concord; Concord, Contra Costa County, California.**

SWCA is currently preparing an EIR for the Concord Reuse Project (CRP) Specific Plan. The CRP Specific Plan addresses a phased mixed-use development on approximately 2,300 acres of the former Concord Naval Weapons Station site. The project would include up to 13,000 residential units and 8.4 million square feet of commercial/campus/institutional uses, and greenway and park uses. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

#### **Chanticleer Park Phase I Development Stormwater Pollution Prevention Plan; Granite Construction Company; Santa Cruz, Santa Cruz County, California.**

SWCA is providing permitting support including the preparation of a Stormwater Pollution Prevention Plan (SWPPP), SWPPP inspections, and pH/turbidity monitoring for a park improvement project. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

#### **Pacific Gas and Electric Company Community Pipeline Safety Initiative Initial Study/Mitigated Negative Declaration; City of Half Moon Bay; Half Moon Bay, San Mateo County, California.**

SWCA is preparing an Initial Study/Mitigated Negative Declaration (IS/MND) pertaining to the issuance of a Coastal Development Permit to support vegetation maintenance (e.g., removing trees and brush) within PG&E's existing rights-of-way that contain a high-pressure natural gas transmission pipeline within Half Moon Bay. Vegetation maintenance activities would improve emergency access and allow for routine leak surveys, which are necessary to maintain natural gas pipeline integrity. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

**PV Water Coastal Distribution System F-Line Expansion Planning Support; Pajaro Valley Water Management Agency; Watsonville, Santa Cruz County, California.** SWCA is preparing a CEQA Addendum and technical background studies for the PV water coastal distribution system pipeline expansion. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

**Magnolia Street Initial Study/Mitigated Negative Declaration; City of Half Moon Bay; Half Moon Bay, San Mateo County, California.**

SWCA prepared an IS/MND and supporting technical studies, including a biological resources evaluation, addendum to the biological resources evaluation, and wetland and waters delineation and assessment for the construction of two residences and a fire truck turnaround on a dead end street. In order to achieve CEQA compliance, SWCA prepared the MND and requisite technical studies for submittal to the Half Moon Bay Planning Department. SWCA prepared deliverables on accelerated schedule and worked closely with the project planner to deliver defensible documents. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

**Estrella Substation and Paso Robles Area Reinforcement Project Permitting and Licensing Support; Confidential Client; Paso Robles, San Luis Obispo County, California.**

SWCA is providing permitting and licensing support, including preparation of a Proponent's Environmental Assessment (PEA), for a new 230/70 kV substation, 7 miles of new aboveground 70 kV power line, 3 miles of reconducted 70 kV line, and a 230 kV interconnection. Services include cultural, biological, and paleontological surveys; PEA preparation; Permit-to-Construct (PTC) application filing support and noticing; and post-filing CEQA and permitting support. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

**Highland Estates Environmental Compliance Support Services; County of San Mateo; San Mateo, San Mateo County, California.**

SWCA is providing oversight and ensuring compliance with a Mitigation Monitoring and Reporting Program (MMRP) and Project Conditions of Approval in conjunction with the certified Final EIR. Highland Estates Development I, LLC has set aside 93 acres of land for the construction of a total of 11 houses on a 97-acre parcel in the San Mateo Highlands area of unincorporated San Mateo County. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

**Suncrest Dynamic Reactive Power Support Project Planning and Permitting Support; Confidential Client; San Diego County, California. [Client is still confidential]** SWCA is currently providing planning and permitting support for a dynamic reactive power support facility and associated 230-kV transmission line in California. Services include routing and siting support; alternatives analysis; cultural, biological, and paleontological surveys; preparation of a Proponent's Environmental Assessment; certificate of public convenience and necessity application filing and noticing; and post-filing CEQA and permitting support. SWCA also provided WEAP training and environmental compliance services during the construction phase. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs. Organized mapping and data collection efforts for site visits where necessary.*

**Marquette Residential Development Mitigated Negative Declaration; Pizzulli Associates, Inc.; Los Angeles, Los Angeles County, California.** SWCA prepared an MND and supporting technical studies, including a tribal cultural resources study, historical resources assessment, biological assessment, and air quality analysis in support of the proposed project in Pacific Palisades. The proposed project includes the demolition of two residences and the construction of eight new single-family homes. In order to achieve CEQA compliance, SWCA prepared the MND and requisite technical studies for submittal to the Los Angeles Department of City Planning. SWCA prepared deliverables on accelerated schedule and worked closely with the project owner to deliver defensible documents. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

**Zzyzx Block Valve Mojave National Preserve Environmental Services; Kinder Morgan Contracting Services LLC; Mojave National Preserve, San Bernardino County, California.** SWCA has provided natural and cultural resources and land planning services for Kinder Morgan pipeline maintenance projects in Imperial, San Diego, Riverside, San Bernardino, and Kern Counties. Our specialists have conducted sensitive species surveys, mapping, and reporting; prepared jurisdictional wetland determinations and associated permitting; conducted cultural resource studies; developed NEPA and CEQA documents such as EAs for operations and maintenance; provided on-site construction monitoring and construction crew natural resource training; and provided expertise to avoid impacts and comply with federal and state regulations for threatened, endangered, and sensitive resources. *Role: GIS Specialist. Produced maps, analysis, and relevant data based on project needs, and organized mapping and data collection efforts for site visits where necessary.*

## JENNIFER PEREZ TORRE, B.A., PROJECT CONTROLLER

Ms. Perez Torre has 25 years of administrative experience, including supporting and assisting attorneys in case management, logistics, accounting, record keeping, and policy analysis. She organizes and implements field team staffing, including support in recruitment and hiring, timesheet and attendance, expenses/allowances, and payroll questions. She also supports project set-up and review, resources allocation and multi-project scheduling, budget tracking, invoicing, health and safety compliance, file organization and documentation management, and project closeout. Ms. Perez Torre has experience reviewing and compiling data, establishing schedules, arranging meetings, and preparing status reports.

### YEARS OF EXPERIENCE

25

### EXPERTISE

Coordination

Scheduling

Budget tracking and forecasting

Large document control

Policies and procedures

Preparing agendas

Local, state, and federal court rules and procedures

### EDUCATION

B.A., Psychology; Texas Tech University, Lubbock, Texas; 2003

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

**Santa Clara County Community Wildfire Protection Plan; Santa Clara County Fire Department; Santa Clara County, California.** SWCA developed a high-end CWPP and Unit Plan for the County that incorporates a multitude of agencies and jurisdictions. SWCA coordinated all stakeholder and community meetings and facilitating an extensive outreach effort through an online survey portal and other online media. The CWPP comprises a comprehensive risk/hazard analysis that includes an assessment of wildland and urban fuels. *Role: Project Coordinator. Participated in stakeholder meetings and public outreach meetings.*

**Enhanced Vegetation Management Program; Utility Client; Multiple Counties, California.** SWCA provided on-call support for the AWRR/EVM Program by deploying experienced natural resource and cultural resource specialists, often under rapid response times, to basecamps throughout Client’s service territory. SWCA was tasked with conducting field coordination, botanical surveys, special-status species surveys, wetland and riparian mapping, cultural resource identification and flagging, environmental trainings, conducting biological and cultural monitoring, and meeting with local land management agencies. *Role: Project Controller. Developed project structure, billing guidelines, and field logistic guidelines; prepared progress reports and managed invoicing; and provided field coordination and safety compliance.*

**Fire Fuel and Invasive Weed Reduction Environmental Compliance Services; Sewer Authority Mid-Coastside; Half Moon Bay, San Mateo County, California.** SWCA provided environmental compliance services including herding coordination and monitoring for the Sewer Authority Mid-Coastside (SAM) Fire Fuel and Invasive Weed Reduction Program in Half Moon Bay. *Role: Project Controller. Managed contract, budget, and invoicing, and coordinated project logistics, field staffing, and safety compliance.*

**Vegetation Management and Fire Abatement Program Biological Services; City of Half Moon Bay; Half Moon Bay, San Mateo County, California.** SWCA provided biological resources services including surveys and reporting for the City Vegetation Management and Fire Abatement Program. *Role: Project Controller. Managed contract, budget, and invoicing, and coordinated project logistics, field staffing, and safety compliance.*

**Canyon Lane Roadway Improvements EIR; County of San Mateo; Redwood City, San Mateo County, California.** SWCA is preparing an EIR and technical background studies for the project for the improvement of Canyon Lane, which includes development of a single-family residence on one parcel, and future development of residences on 11 parcels, as well as the construction of new utilities, including a waterline and an underground distribution line. *Role: Project Controller. Managing budget and invoicing; preparing progress reports, change orders, and reallocation of existing funds; and coordinating project logistics, field staffing, and safety compliance.*

**Highland Estates Environmental Compliance Support Services; County of San Mateo; San Mateo, San Mateo County, California.** SWCA is providing oversight and ensuring compliance with a Mitigation Monitoring and Reporting Program (MMRP) and Project Conditions of Approval in conjunction with the certified Final EIR. Highland Estates Development I, LLC has set aside 93 acres of land for the construction of a total of 11 houses on a 97-acre parcel in the San Mateo Highlands area of unincorporated San Mateo County.

*Role: Project Controller. Managing budget and invoicing; preparing progress reports, change orders, and reallocation of existing funds; and coordinating project logistics, field staffing, and safety compliance.*

**PV Water Recycled Water Facility Treatment Compliance Support; Pajaro Valley Water Management Agency; Multiple Counties, California.** SWCA provided document sufficiency assessments, environmental document, environmental permitting, and technical studies support for three separate water management projects located in Watsonville and Moss Landing. SWCA prepared a CEQA-Plus environmental document addendum, two CEQA addendums, NHPA Section 106 and CEQA archaeological surveys and reports, provided consultation assistance with the SHPO; and conducted Extended Phase I archaeological presence absence testing, a wetland delineation, and biological technical reporting; provided preparation assistance for funding applications; and managed environmental compliance monitoring, preconstruction surveys, and field staff training. *Role: Project Coordinator. Provided field coordination; prepared progress reports; and managed budget and invoicing.*

**CSU Dominquez Hill Master Plan; WSP USA INC.; San Bernardino County, California.** SWCA conducted technical studies and prepared EIR sections for compliance with state and federal statutes, particularly CEQA and NEPA, in support of the 2019 Master Plan. Technical work included a desktop archaeological sensitivity study and a preliminary jurisdictional delineation. *Role: Project Coordinator. Provided project management support including field coordination, budget management, and invoicing.*

**Monterey Sewer Rehabilitation Packages 3, 5, 6 Construction Monitoring; City of Monterey; Monterey, Monterey County, California.** SWCA provided environmental support services for over 100 sewer repair projects throughout Monterey, including biological and cultural environmental compliance monitoring, preconstruction surveys, archaeological surveys and reports, field staff training, and report preparation to document CEQA mitigation and monitoring requirements. *Role: Project Coordinator. Provided project management support including field coordination, budget management, and invoicing.*

**Green Beanworks Solar Projects C and D Initial Study/Mitigated Negative Declaration; sPower Development Company, LLC; Lancaster and Palmdale, Los Angeles County, California.** SWCA provided biological resources services for a proposed solar generation facility and a 500-foot buffer surrounding the project site. SWCA conducted a biological constraints analysis (BCA) for the projects, which provided the technical basis for the planning-level assessment of potential impacts to biological resources that had the potential to result from project implementation, and supported the Conditional Use Permit from the City of Lancaster. After completion of the BCA, SWCA prepared two IS/MNDs satisfying the CEQA review. *Role: Project Coordinator. Provided project management support including field coordination, budget management, and invoicing.*

**Confidential Electric Transmission Project Proponent's Environmental Assessment; Confidential Client; San Luis Obispo County, California.** SWCA is providing planning and permitting support for a new 230 kV/70 kV substation, 8 miles of new aboveground 70 kV power line, 6 miles of reconductoring of a 70 kV line, and a 230 kV interconnection. Services include cultural, biological, and paleontological resource surveys; PEA preparation; permit to construct application filing and noticing; and post-filing CEQA and permitting support. The application for Permit to Construct was filed in January 2017 and the PEA is under CEQA review (Application No. A.17-01-023). *Role: Project Controller. Coordinating project logistics, field staffing, safety compliance, accounting, and recordkeeping; developing project structure, billing guidelines, and budget tracking system for multiple-client project; and preparing monthly forecasts, monthly progress reports, and change orders.*

**Carol Henson**  
**P. O. Box 461179**  
**Leeds, UT 84746**  
**Phone number: 805-895-2750**  
**Email: carol@geoelementsllc.com**

### **Summary of Qualifications**

I have over thirty-eight years of experience in all phases of wildland fire and fuels management, which include over 29 years with the Forest Service. I've served in various capacities on engines and hotshot crews promoting to Battalion Chief and Forest Fuels Officer prior to my final position as a Fire Management Specialist for an Enterprise Team with the Washington Office.

My expertise includes fire behavior modeling, weather analysis, risk and hazard assessments, development of wildfire hazard mitigation strategies, and community wildfire protection planning.

### **Professional Experience**

#### ***Geo Elements, LLC, October 2009 - present***

I own and operate a wildland fire and fuel consulting business. Serve as fire management specialist and principle author on wildland fire and fuels related plans and reports, community wildfire protection plans, risk and hazard mitigation specialist, development of wildfire mitigation strategies including structure hardening and vegetation management, and firesafe planning. Conduct fire behavior modeling and weather data analysis in support of wildfire hazard and risk assessments. I've managed a range of projects, including twelve community wildfire protection plans, a wildland fire urban interview case study, and a myriad of other wildfire related projects.

My duties include all aspects of business including customer service, billing, marketing, sales, purchasing, accounting, contracting, and hire and supervise subcontractors.

#### ***U.S. Forest Service, WO, Adaptive Management Services Enterprise Team, May 2003 to Oct 2009***

Served as project manager for a variety of wildland fire and fuels projects including fire behavior assessments, fire behavior modeling, fire behavior research, fire management plans, fuels technical input for environmental analyses, validating requirements for structure protection, multiple National Fire Plan success stories, and coordinated with multiple federal, state, and local agencies. Utilized ESRI ArcGIS for multiple projects.

#### ***U.S. Forest Service, Los Padres National Forest, July 1997 to May 2003***

Served as Santa Barbara Ranger District and the Los Padres National Forest Fuels Officer where I was responsible for overall program management including the budget, program planning, and supervising a team of four. Duties included developing a forest-wide fuel treatment strategy that included planning and implementing numerous fuel treatment projects across the 1.7 million acre forest that led to 5-year program of work.

Wrote multiple burn plans of various complexity, managed a complex prescribed fire burn program, provided formal and informal fire and safety training, utilized ESRI ArcView to develop database and spatial historical forest fuel treatment maps, provided public education on fire and hazardous fuels, provided technical input for NEPA; provided technical input for forest land



management plans. Also, contracted and coordinated with local, state, and federal agencies and served on numerous Forest Service and public committees involved with various fuels and fire-related issues. Represented the Forest on the Santa Barbara County Fire Safe Council.

***U.S. Forest Service, Lassen National Forest, July 1994 to July 1997***

Served as Assistant District Fire Management Officer/Suppression Battalion Chief where I supervised and provided oversight for 16 employees including engines, prevention technicians, and a lookout. My duties included acting as a duty officer, district fire training coordinator, maintained several fire databases for the district, and coordinated and scheduled projects assigned to district suppression personnel.

***U.S. Forest Service, Sierra National Forest, October 1991 to July 1994***

Served as Assistant District Fire Management Officer/Suppression Battalion Chief where I supervised and provided oversight for 14 employees including engines and a prevention technician. Served as duty officer, district fire training coordinator, prepared district preparedness plans and fire reports, and coordinated and scheduled projects assigned to district suppression personnel.

***U.S. Forest Service, Angeles National Forest, December 1977 to July 1991***

Served in a variety of field level fire management positions including engine crewmember, hotshot crewmember, squad boss, assistant fire engine operator, engine operator, engine captain, and hotshot captain in fire suppression duties. Supervised engine and hotshot crews in all aspects of wildfire suppression, prescribed burning, and forest project work.

**Certifications and Training**

I've held a variety of fireline positions. My National Wildfire Coordinating Group red card qualifications included Incident Commander Type 3, Fire Behavior Analyst, Division/Group Supervisor, Burn Boss II, Strike Team Leader Crews and Engines, Field Observer, Situation Unit Leader, and Crewboss. Attended CA Fire Safe Planner training, S-590 Fire Behavior Analyst, Fire History Workshop, Farsite Workshop, RX-310 Fire Effects, WFDSS – Region 5 training, and a myriad of other fire and fuels related training.

**Education**

Colorado State University, Technical Fire Management, 18 units

College of the Canyons, General Education, 9 units

Glendale Community College, Aviation, 3 units

Pasadena City College, Forestry & Fire, 3 units

**Other experience**

Although no longer current, I was certified as a single-engine private pilot in a Cessna 152 and 172 aircraft.

# JOHN JUSTICE

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## EXPERIENCE

**AUGUST 2018 – TO DECEMBER 2019**

**ASSISTANT FIRE CHIEF, SANTA CLARA COUNTY FIRE DEPARTMENT**

Duties included strategic oversight of the Fire Department, including the budget, and the Operations, Planning and Administration, Prevention, Support Services, and Training divisions. Also worked closely with the Business Services Division and the Personnel Services Division.

**DECEMBER 2012 TO AUGUST 2018**

**DEPUTY FIRE CHIEF/ PREVENTION SANTA CLARA COUNTY FIRE DEPARTMENT**

Provide oversight of the division which, which included construction document reviews, construction inspections, maintenance inspections, hazardous material inspections, urban runoff inspections, community education, and investigations.

Provided oversight of contracts for services including the West Valley Clean Water (inspection) Program, providing fire marshal services for all of the County of Santa Clara and Stanford University.

Served in an advisory position to the Santa Clara County FireSafe Council. Secured a grant for the Countywide Community Wildfire Protection Plan, and oversaw the creation and adoption of the CWPP. Served as the President of the Santa Clara County Fire Chiefs' Fire Marshals' Association for 3 years.

**DECEMBER 2011 TO DECEMBER 2012**

**DEPUTY FIRE CHIEF/ SUPPORT SERVICES SANTA CLARA COUNTY FIRE DEPT**

Plan, organize and budget for the ongoing and future needs of the Departments facilities, fleet, and supplies. The facilities included 17 fire stations, headquarters, a training facility, a fleet maintenance shop and a craftworkers shop. The fleet included approximately 50 fire apparatus and 50 sedans, pickup trucks and vans.

**FEBRUARY 2009 TO DECEMBER 2012**

**BATTALION CHIEF SANTA CLARA COUNTY FIRE DEPARTMENT**

Assigned to the Bay Area Urban Areas Security Initiative (UASI) management team, serving as program manager for the CBRNE (chemical, biological, radioactive, nuclear, explosive) and Training and Exercise projects. Duties included managing numerous antiterrorism grants throughout the bay area's law enforcement, fire, emergency medical and emergency management communities. Major exercises included Golden Guardian 2010, and multiple Urban Shield events.

**DEBEMBER 2000 TO FEBRUARY 2009**

**SENIOR HAZARDOUS MATERIALS SPECIALIST SANTA CLARA COUNTY FIRE DEPT**

Provided oversight of the Department's hazardous materials regulatory section, which included hazardous material business plans, underground storage tanks, plan reviews, construction and maintenance inspections, urban runoff inspections, and investigations. Duties included writing quarterly and annual reports on various programs to local and state agencies and supervising staff.

## **EDUCATION**

**DECEMBER 1980**

**B.S. BUSINESS ADMINISTRATION,** CALIFORNIA STATE UNIVERSITY, CHICO

**MAY 1993**

**HAZARDOUS MATERIALS MANAGEMENT CERTIFICATE,** UNIVERSITY OF CALIFORNIA SANTA CRUZ