

**DOCKETED**

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<b>Document Title:</b>	Appendix D-5 Biologist Resumes
<b>Description:</b>	This file contains the resumes for the project biologists.
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## LUIS AGUILAR, M.A., LEAD BOTANTIST

Luis Aguilar is an experienced botanist, aquatic resources regulatory specialist, and a certified arborist. He has multiple years of experience conducting and overseeing botanical surveys including rare plant surveys and vegetation mapping efforts throughout southern and central California. Prior to consulting, Luis spent 7 years working for the National Park Service (NPS). During his time with the NPS, Luis was stationed in the Santa Monica Mountains National Recreation Area where he helped develop and implement a long-term terrestrial vegetation monitoring plan. As a practicing consultant, Luis has conducted numerous rare plant surveys throughout Southern California, habitat suitability assessments, and has led multiple vegetation mapping efforts following the Manual of California Vegetation and Holland procedures. Luis has experience in multiple environments ranging from coastal wetlands to deserts. As an aquatic resources regulatory specialist and certified arborist, Luis is routinely working peripherally with botanical resources through plant identification, tree care prescriptions, and interpretation of morphological characteristics which result from site-specific environmental conditions.

### YEARS OF EXPERIENCE

14

### EXPERTISE

Rare plant surveys

Vegetation mapping

Wetland delineation

California Native Plant Society Rapid Assessment and Relevé Protocol

Waters permitting

Habitat restoration

California Rapid Assessment Method

Arboriculture services

Geographic information systems (GIS)

### EDUCATION

M.A., Geography/GIS; California State University, Northridge; 2015

B.A., Geography; University of California, Los Angeles; 2010

### REGISTRATIONS / CERTIFICATIONS

Tree Risk Assessment Qualification, California No. WE-12042A; International Society of Arboriculture; 2021

Certified Arborist, California No. WE-12042A; International Society of Arboriculture; 2017

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

**RFCS37 – Ballona Wetlands Well Assessment; Southern California Gas (SoCalGas); Los Angeles County, California.** SWCA conducted an aquatic resources and biological resources survey within the Ballona Reserve. SoCalGas owns and maintains numerous natural gas storage wells within their easements of the Reserve. Two SWCA biologists surveyed 16 well sites associated with anticipated well abandonment activities. The site is politically and environmentally sensitive for numerous previously recorded resources. *Role: Field Lead – Biological and Aquatic Resources. Led aquatic resources delineation and biological resources surveys including rare plant surveys and vegetation mapping. Drafted biological and aquatic resources delineation reports. Coordinated with the California Coastal Commission.*

**\*Terrestrial Vegetation Inventory and Monitoring Program; National Park Service; Santa Monica Mountains National Recreation Area; Los Angeles and Ventura Counties, California.** The National Park Service developed and implemented a terrestrial vegetation inventory and monitoring program for the Santa Monica Mountains National Recreation Area along with other park units. *Role: Botanist. Helped develop and implement a long-term vegetation monitoring plan. Led multiple teams and provided training on proper data collection techniques and methodology. Provided plant identification training for junior staff.*

**Carlsbad/Carroll Canyon Habitat Restoration; Kinder Morgan Contracting Services LLC; San Diego County, California.** SWCA has provided habitat assessments, natural resource constraints surveys, wetlands permitting, habitat restoration planning, and cultural resource studies for pipeline anomaly testing and repair projects throughout San Diego County, including in the Los Peñasquitos Lagoon Watershed. These projects have included work in sensitive riparian habitats in jurisdictional wetlands, within the uplands of the Multi-Habitat Planning Area of the city of San Diego and other preserves, and adjacent to nesting bird habitat. *Role: Wetland Specialist. Provided technical expertise for waters and biological resources. Conducted client and agency coordination. Led biological surveys including vegetation mapping and botanical inventory and authored accompanying reports.*

**Mission Creek Biological Assessment and Monitoring; Southern California Edison; Santa Barbara County, California.** SWCA prepared an assessment of impacts to wildlife and sensitive vegetation communities as well as special-status flora and fauna that could have been impacted access road and vegetation management activities along a highly sensitive portion of Mission Creek, located in Santa Barbara County, California. A desktop analysis and focused field surveys were conducted. SWCA provided on-site arborist, along with water, biological, cultural, and paleontological monitors for road improvements on the project site. *Role: Lead wetland delineator, rare plant surveyor, and oak tree monitor. Provided botanical resources, aquatic resources, and arboricultural expertise to client. Conducted rare plant surveys and vegetation mapping. Led wetland delineation and authored associated report and permit applications.*

**\*Peter Strauss Riparian Restoration; Santa Monica Mountains National Recreation Area; Los Angeles County, California.** Project consisted of 2.5 acres of riparian woodland/upland coastal sage habitat on federal lands in Los Angeles County, California (Peter Strauss Ranch, Santa Monica Mountains National Recreation Area). The grant was to promote habitat connectivity and provide habitat for a locally uncommon tree species, velvet ash, along Malibu Creek. The restoration covered waters of the United States, as well as waters of the State. *Role: Biologist. Wrote project proposal, and secured funding for a 4-year riparian restoration project.*

**San Francisquito Aquatic Organism Passage Restoration Phase 2, Powerhouse 2 Site; Resource Institute, Inc.; Los Angeles County, California.** SWCA, in partnership with the Resource Institute, is working with the U.S. Forest Service on a National Fish and Wildlife Foundation grant to conduct river restoration at two distinct sites along San Francisquito Creek in the Angeles National Forest. The work is part of a programmatic, watershed approach to restoring aquatic organism passage (AOP), for the California red-legged frog and unarmored threespine stickleback, both federal and state listed species. Design and implementation of natural channel design methodologies is underway at four high-priority passage barriers along the creek; three AOP barriers are undersized culverts clogged with sediment and debris after fire activity, and the fourth is located at the site of the failed St. Francis Dam, where dam foundation remnants have blocked natural stream flows. Phase 1 of the program involves baseline conditions analyses, natural channel design/engineering, road crossing design/engineering, developing all required permitting documents (including National Environmental Policy Act [NEPA] and California Environmental Quality Act [CEQA]), stakeholder and community outreach, and biological and cultural resources. *Role: Wetland Specialist. Provided client aquatic resources subject matter expertise and lead the aquatic resources delineation. Conducted a habitat assessment that incorporated vegetation mapping and suitability assessments for sensitive plant and wildlife species with potential to occur.*

**\*Rancho Sierra Vista Wetland Restoration; Santa Monica Mountains National Recreation Area; Ventura County, California.** Project consisted of a 0.5-acre wetland restoration in federal land in Ventura County, California (Rancho Sierra Vista/Satwiwa, Santa Monica Mountains National Restoration Area). The purpose of the project was to restore a degraded wetland by removing nonnative species and reintroducing a native hydrophytic palette, including yerba mansa and longroot smartweed. *Role: Biologist. Helped determine scope of work and vegetation palette for wetland restoration based on locally observed wetland species. Hand-pulled nonnative vegetation, and planted native species. Collected geospatial data and produced map of the restoration efforts.*

**\*Berkeley Tuolumne Family Campground; Siegel and Strain Architects; Stanislaus National Forest, Tuolumne County, California.** Conducted an arboricultural inventory and health and structural assessment funded by the Federal Emergency Management Agency for trees damaged across 32.4 acres within the City of Berkeley's Tuolumne Family Campground following the 2013 Rim Fire. *Role: Arborist. Conducted hazardous tree risk assessments on over 2,000 trees. Identified tree species and assessed trees for damage and structural integrity.*

**Starlight Solar Project; Empire II, LLC; San Diego County, California.** SWCA is preparing an environmental impact report (EIR) assessing the environmental impacts of the construction and operation of a photovoltaic solar facility and battery energy storage project in unincorporated San Diego County. The project is an important component of meeting the County's local renewable energy procurement targets. The EIR will be supported by several technical studies prepared by SWCA, including biological resources, jurisdictional waters, cultural resources, wildfire, noise, air quality, and visual resources (including glare and visual simulations). The project also includes the creation of an off-site biological resources open-space easement. SWCA assisted in the design of the project by identifying constraints and working with the design team to limit environmental impacts. *Role: Wetland Specialist. Acted as the lead wetland scientist/waters regulatory specialist and botanical resources subject matter expert. Supported rare plant surveys and vegetation mapping efforts and provided final subject matter review for botanical resources.*

## LEE BENVAU, M.S., PROJECT RESTORATION ECOLOGIST

Lee BenVau is a Project Restoration Ecologist in SWCA's San Diego office. Mr. BenVau has worked on a variety of tasks for projects throughout San Diego County including focused surveys for rare plants, monitoring 5-year habitat restoration projects, conducting jurisdictional delineations and permit processing for aquatic resource impacts, monitoring construction sites for compliance with environmental permits, and authoring a range of biological reports and plans.

### YEARS OF EXPERIENCE

8

### EXPERTISE

Habitat restoration/enhancement

Biological surveys / monitoring

Environmental compliance

Habitat mapping

Rare plants

California Environmental Quality Act biological resources impacts analysis and compliance

### EDUCATION

M.S., Biology; University of California, San Diego; 2014

B.S., Ecology, Behavior and Evolution; University of California, San Diego; 2012

### REGISTRATIONS / CERTIFICATIONS

County of San Diego Approved CEQA Consultant – Biological Resources

### TRAINING

Wetland Delineations – Wetland Training Institute

Passed Recovery Permit Practical Exam for Quino Checkerspot Butterfly

### AWARDS / HONORS

Golden Key International Honour Society

Phi Sigma Theta National Honor Society

Provost Honors

### PUBLICATIONS

BenVau, L. R., and Nieh, J. C. (2017). Larval honey bees infected with *Nosema ceranae* have increased vitellogenin titers as young adults. *Scientific Reports*. 7(1). 14144.

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

**On-Call Environmental Compliance Projects; San Diego Gas & Electric Company (SDG&E); San Diego County, California.** Multiple environmental on-call projects, including fire risk mitigation initiatives in San Diego County. *Role: Biologist. Collected data on potential vegetation impacts in the field and assisted with reporting.*

**\*Campus Park / Horse Creek Ridge Project; D.R. Horton; Fallbrook, San Diego County, California.** Approximately 120-acre residential development project with southern riparian forest designated as USFWS Critical Habitat for least Bell's vireo (LBVI) and coastal California gnatcatcher (CAGN)-occupied CSS (coastal sage scrub). *Role: Biologist, Restoration Ecologist. Conducted LBVI protocol surveys and nesting bird surveys prior to construction; lead construction monitoring and compliance with permits issued by County of San Diego, San Diego Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers (USACE), and U.S. Fish and Wildlife Service during construction; and conducted qualitative and quantitative monitoring, oversaw habitat maintenance, implemented remedial measures as needed to ensure success criteria were met, and authored annual monitoring reports for southern riparian forest enhancement and southern riparian scrub creation mitigation project.*

**\*Montecito Ranch; Montecito Ranch, LLC; Ramona, San Diego County, California.** Southern riparian scrub creation, vernal pool creation and enhancement, and southern tarplant population monitoring for unpermitted impacts to these resources on a 935-acre property formerly proposed for development that has since been conserved. *Role: Restoration Ecologist. Conducted qualitative and quantitative monitoring, oversaw habitat maintenance, implemented remedial measures as needed to ensure success criteria were met, authored annual monitoring reports.*

**\*Rancho Vista Senior; Rancho Vista Senior 2018, LLC; City of Oceanside, San Diego County, California.** Proposed residential development project to provide senior housing. *Role: Biologist. Authored revegetation plan, habitat conservation plan, resource management plan, and incidental take permit application for property with CSS occupied by CAGN (USFWS Critical Habitat, City of Oceanside Wildlife Corridor Planning Zone).*

**\*Skyline Retirement Center; Skyline Church; Valle De Oro; San Diego County, California.** Church expansion project to include a retirement center. *Role: Biologist. General survey and Palmer's goldenbush population assessment for property and offsite mitigation parcel with CSS, non-native grassland, riparian woodland, San Diego sunflower, CAGN, assisted with biological resources letter report.*

## BRITTANY BETZ, B.S., ASSOCIATE PROJECT MANAGER

Brittany is a biologist working in SWCA's Pasadena, CA office mainly conducting work for Southern California Edison to provide biological assessments on a project-by-project basis pertaining to utility maintenance and construction. Assessments are focused primarily on avoidance of potential impacts and supplemental protective measures/permits applicable to waters and wetlands resources. Brittany is also an expert in additional analysis report writing, documents of this nature include Biological, Habitat, and Desktop Assessments. Experience includes botanical and wetland assessments in the field throughout Southern California using survey techniques including the California Rapid Assessment Method (CRAM).

### YEARS OF EXPERIENCE

4

### EXPERTISE

Botany (Southern California, collection, identification and systematics of vascular plants)

Freshwater aquatic benthic macroinvertebrates sampling and identification

Vegetation surveys and monitoring, focus in native seed collection

Nesting bird, woodpecker, bat, sage grouse

Biological, Habitat, and Desktop assessments

Waters/Wetlands assessment and reviews

Scientific papers/general, Biological, Habitat, and Desktop assessment reports

California Rapid Assessment Method (CRAM) and physical habitat (PHAB) protocols

Stream/wetland assessment including abiotic and biotic resources

Sage-grouse surveys/ lek counts

Post fire revegetation planning and planting

Night time bat surveys in the great basin  
Biology

California Rapid Assessment Method (CRAM) and physical habitat (PHAB) protocols

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

**SCE EC 003 Special Use Permit (SUP); Southern California Edison Company; Multiple Counties, California.** Under a three-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Biologist. Conducted desktop reviews for all natural resources.*

**SCE EC 007 Biology Environmental Analysis, Metro East, Metro West, Deserts, San Jacinto; Southern California Edison Company; Multiple Counties, California.** Under a three-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Biologist. Conducted desktop reviews for all natural resources.*

**SCE EC 008 Biology Construction Support, Metro East, Metro West, Deserts, San Jacinto; Southern California Edison Company; Multiple Counties, California.** Under a three-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Biologist.*

**SCE EC 009 Biology Environmental Analysis, Rurals Region; Southern California Edison Company; Multiple Counties, California.** Under a three-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Biologist. Conducted desktop reviews for all natural resources.*

**SCE EC 011 Wetlands Environmental Analysis; Southern California Edison Company; Multiple Counties, California.** SWCA is providing waters support for multiple tasks and areas within the SCE region, such as multiple Deteriorated Pole Replacement Projects throughout San Bernardino, California. SWCA is assisting with USACE 404 Permits and State Water Board 401 Permits which includes waters and habitat avoidance measures. *Role: Biologist. Conducted desktop reviews for wetland resources.*

**EDUCATION**

B.S., Biology; California State University of Long Beach, Long Beach, CA; 2016

**REGISTRATIONS / CERTIFICATIONS**

Certified Scuba Diver; NAUI Worldwide; 2012

California Rapid Assessment Methodology (CRAM) Practitioner, California; Southern California Coastal Water Research Project; 2015

**TRAINING**

Adult and pediatric First Aid/CPR/AED/Blood Borne Pathogens, American Red Cross; 2017

CNPS Mitigation Measures & Monitoring, CNPS; 2020

California Rapid Assessment Method (CRAM) riverine and depressional modules, Southern California Coastal Water Research Program; 2016

**SCE EC 012 Wetlands Construction Support; Southern California Edison**

**Company; Multiple Counties, California.** Under a three-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Biologist. Conducted desktop reviews for all natural resources.*

**Ocean Knoll Canyon Habitat Restoration; San Diego Botanic Garden; San Diego County, California.** *Role: Biologist.*

**SCE EC 020 TCO (2019); Southern California Edison Company; Multiple Counties, California.** *Role: Biologist.*

**SCE EC 026 OCI P2 Vegetation (Transmission); Southern California Edison Company; Los Angeles County, California.** *Role: Biologist.*

**SCE EC 029 OCI P2 Environmental Review (Distribution); Southern California Edison Company; County, California.** *Role: Biologist. Conducted desktop reviews for all natural resources.*

**SCE ES 004 Small Emergencies: All Disciplines; Southern California Edison Company; Menifee, Riverside County, California.** SWCA is under a three-year on-call contract, to provide environmental consulting services (biological, cultural and paleontological, water quality/wetland permitting, licensing), for moderate to large scale utility system upgrades and improvements (~\$300,000-\$3M) for SCE's Transmission and Distribution Organizational Unit. Projects include but are not limited to: support for CPUC

licensed projects, PEA development, National Environmental Policy Act (NEPA) projects, renewable interconnections, execution of environmental mitigation, and environmental oversight during construction. *Role: Biologist.*

**SCE ES 007 Emergency Response Intake; Southern California Edison Company; Los Angeles County, California.** *Role: Biologist.*

**MEP SCE111 Small Capital Civil Program; Southern California Edison Company; California.** *Role: Biologist.*



## MAISIE BORG, B.S., BOTANIST / WETLAND DELINEATOR

Ms. Borg is a botanist with six years of experience in plant science and natural resource management. Having been involved in extensive field work across the California Floristic Province in remote and rugged areas, Ms. Borg has ample experience conducting surveys for threatened, endangered and sensitive plant species, noxious weeds surveys, critical habitat assessments, vegetation community mapping, post-fire surveys, monitoring of construction sites and associated pre and post-activity surveys and reporting, and technical report writing. Ms. Borg is very comfortable with native and nonnative plant identification using the Jepson Manual and other key resources as well as determining plant communities within California and in the west.

### YEARS OF EXPERIENCE

6

### EXPERTISE

Plant identification

Botany (plant biology)

Threatened, endangered and sensitive species surveys

Noxious weed surveys

Vegetation mapping

Technical writing; Biological technical reports

### EDUCATION

M.S. in progress, Ecology, Evolution, & Conservation Biology, c: Plant Ecophys; San Francisco State University, San Francisco, California; 0

B.S., Environmental Science & Management m: Plant Biology; University of California, Davis, Davis California; 2014

### REGISTRATIONS / CERTIFICATIONS

Red Card Certified: Resource Advisor, Fireline; Burned Area Emergency Response Specialist

### PERMITS

California Department of Fish and Wildlife Plant Voucher Collecting Permit (2081(a)-19-095-V); CA

### TRAINING

Wetland Delineation, Wetland Training Institute, Inc.; 2020

### MEMBERSHIPS

Southern California Botanists

California Native Plant Society

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

**SCE EC 011 Wetlands Environmental Analysis; Southern California Edison Company; Multiple Counties, California.** SWCA is providing waters support for multiple tasks and areas within the SCE region, such as 115kV Deteriorated Pole Replacement Project located in San Bernardino, California. The project involves removing and replacing a deteriorated wooden transmission H-Frame structure with new wood poles. The removal and replacement of both poles may temporarily impact the U.S. Army Corps of Engineers (USACE)/ Regional Water Quality Control Board Jurisdictional Resources. No permanent impacts will occur, and the poles will be accessed by foot and set by helicopter. Upon completion, the disturbed area will be returned to pre-existing contours. SWCA is assisting with USACE 404 Permit and State Water Board 401 Permit. *Role: Botanist.*

**SCE EC 007 Biology Environmental Analysis, Metro East, Metro West, Deserts, San Jacinto; Southern California Edison Company; Multiple Counties, California.** Under a three-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Botanist, Wetland Delineator. Field surveys, desktop reviews.*

**Victorville Pipeline Project MMRP Implementation; Meridian Consultants, LLC; Victorville, San Bernardino County, California.** SWCA assisted Meridian with implementation of mitigation measures outlined in the Mitigation Monitoring and Reporting Program (MMRP) for the Victorville Pipeline Project. *Role: Permit preparation.*

**Confidential Project; Confidential Client; Texas.** SWCA performed various cultural and natural resource services such as background investigations, surveys, permitting, and environmental inspection under this MSA. *Role: Botanist, Wetland Delineator.*

**\*Biological Science Technician (Plants), Angeles National Forest, California.** Surveyed, mapped and monitored for a multitude of threatened, endangered and sensitive (TES) plants in the field, including critical habitat assessments. Developed data by collecting and checking plant samples obtained by self or others for rare plant surveys, weeds inventory, vegetation community composition mapping, plant habitat suitability/verification using professional methodology, techniques and procedures mandated by the USFS. Assisted in training personnel, volunteers, partners and others in identifying special status plants and noxious weeds; acted as resource for native and nonnative plant ID. Referred to voucher specimens when necessary. Prepared reports and entered plant survey & monitoring records in appropriate databases using desktop

computer and tablet. Programs/software included: ArcGIS (Online & Desktop), Avenza Pro, Collector, Survey123, Pinyon, USFS's Natural Resource Manager (NRM) system of database tools including Forest Service Activity Tracking System (FACTS), Natural Resource Information System (NRIS), Watershed Improvement Tracking (WIT). Ensured NEPA compliance with permitting documents (mitigation projects included long-term ecological restoration special use project sites); Consulted with agency contracted partners (e.g. American Conservation Experience, Rancho Santa Ana Botanic Garden). Intersectional collaboration with other FS programs including fire, fisheries, wildlife and recreation where appropriate (e.g. consulted with other resource specialists prior to performing plant surveys in the preparation of prescribed fire). Noxious and invasive weed species management via handwork and herbicide/pesticide application (backpack & power sprayer). Worked in remote and rugged areas requiring 4WD vehicle, communicating via DPH Digital Bendix King Handheld Radio. *Role: Biological Science Technician.*

**SCE Large Cap CWA L027 Moorpark-Pardee No. 4; Southern California Edison Company; Ventura County, California.** SWCA is providing Southern California Edison (SCE) environmental services for a large capital project located in the City of Santa Clarita, unincorporated Los Angeles and Ventura Counties, and the City of Moorpark. The project involves the installation of a new electrical transmission circuit on transmission towers along an existing right-of-way, and associated equipment repairs and upgrades. SWCA conducted an initial environmental constraints analysis to inform high-level project planning. SWCA conducted field surveys for natural and cultural resources, including habitat assessments and protocol surveys for several threatened and endangered species, such as the San Fernando Valley spineflower, coastal California gnatcatcher, southwestern willow flycatcher, arroyo toad, and least Bell's vireo. SWCA also conducted a jurisdictional delineation of aquatic features in the project area. Based on survey findings, SWCA developed avoidance and minimization measures for SCE to avoid impacts to listed species. SWCA prepared a GO 131-D evaluation to document the project's exemption from California Environmental Quality Act (CEQA) requirements and is currently providing monitoring support as the project enters construction. *Role: Botanist. Field surveys, desktop reviews, and mapping.*

**NRCS D.C. Easement Support; American Conservation Experience (ACE); Multiple Counties, Multiple States.** SWCA is collaborating with ACE to provide technical support to the Natural Resources Conservation Service's wetland restoration programs. Through this partnership we have reviewed over 65 easements, providing technical review and recommendations for easement compliance, ecological success, habitat composition, and management strategies. *Role: Botanist. Field surveys, report writing.*

**\*Junior Specialist, John Muir Institute of the Environment, University of California, Davis, California.** Monitored and inventoried forest and meadow vegetation on an array of land including private, USDA Forest Service (Tahoe NF, Eldorado NF, Inyo NF) and National Park (Yosemite NP) property within the Sierra Nevada, White Mountains, and Sierra de San Pedro Mártir (Mexico). Collected data under U.S. Forest Service protocols on forest stand structure, species diversity & density, tree mortality, vegetation regeneration, and landscape characteristics from remote field sites across demanding terrain using handheld GPS device for various field ecology projects under R5 Regional Ecologist. Hardcopy and digital data organization and data entry.

**Gateway South Implementation Support; PacifiCorp; Multiple Counties, Utah.** SWCA provides full-time environmental support for multiple projects associated with the Energy Gateway Transmission Expansion Program, which includes over 2,000 miles of extra-high voltage transmission line projects (500 kV, 345 kV, and 230 kV) that will interconnect several planned and proposed substation facilities in the West. As the Owner's Environmental Consultant, SWCA is involved in all aspects of project development from the initial routing studies and permit applications through project implementation and commissioning. SWCA staff review and contribute to technical documents associated with the numerous federal, state, and local permitting efforts, including those required for compliance with NEPA (EAs and EISs), Section 106 of the NHPA, Section 404 of the CWA, Section 7 of the ESA, and Conditional Use Permits. Other responsibilities include development of the Company's proposed mitigation plans, detailed refinement of Plans of Development, coordination of geotechnical studies, and taking the lead on implementing comprehensive Environmental Compliance Management Plans. *Role: Botanist. Rare plant and suitable habitat surveys.*

**Raceway Solar Biological Studies; sPower Development Company, LLC; Rosamond, Kern County, California.** SWCA conducted biological resources surveys in the spring and summer 2020 for the Raceway Solar Project (project), in the community of Rosamond in southeastern Kern County, California. *Role: Botanist. Rare plant survey.*

**Luna and Lancaster Battery Storage Projects Biological Surveys; sPower Development Company, LLC; Lancaster, Los Angeles County, California.** SWCA conducted biological surveys for two battery storage projects, the Luna Storage Project and Lancaster Area Battery Storage Project, in the City of Lancaster, California. *Role: Botanist. Rare plant survey, report writing.*



## KRISTEN BURGESS, B.S., WILDLIFE BIOLOGIST

Ms. Burgess is a biologist specializing in botany and avian ecology. Her career has been entirely within the consulting industry since she graduated from Humboldt State University in 2017. The majority of her work has been in preconstruction biological and natural resource surveys for listed species in the greater Nevada area and compliance monitoring for listed species on construction and transmission sites in the greater California Bay Area. She has additional experience in sensitive plant and nesting bird surveys.

### YEARS OF EXPERIENCE

3

### EXPERTISE

Biological surveys

Nesting bird surveys

Compliance monitoring

Sensitive plants

### EDUCATION

B.S., Wildlife Biology and Conservation;  
Humboldt State University; 2017

### TRAINING

TWS Map and Compass workshop

California Waterfowl Association  
College Hunters Workshop

Wildlife Techniques Class

San Joaquin Kit Fox Workshop

WildC.A.T: Wildlife biologist construction  
awareness training

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

**Gateway South Implementation Support; PacifiCorp; Multiple Counties, Multiple States.** PacifiCorp, doing business as Rocky Mountain Power, contracted SWCA to conduct numerous biological surveys for a proposed 420-mile, single-circuit 500-kilovolt transmission line. *Role: Biologist. Biological technician and crew lead for sensitive plant surveys.*

**LMUD Skeddadle Interconnection Project Environmental Services; Lassen Municipal Utility District; Susanville, Lassen County, California.** SWCA is currently assisting the Lassen Municipal Utility District design team with the permitting environmental constraints on the Skeddadle Substation Project. SWCA has secured a Waste Discharge Requirements Notice of Applicability, established and maintained the EcoAtlas database for the project, and provided GIS support in the project designs. *Role: Biologist.*

**\* Swaim Biological Incorporated, SBI; Livermore, California.** *Role: Associate Biologist. Worked as a wildlife biologist implementing state and federal Endangered Species Act regulations on multiple construction sites, collected data for threatened and endangered herpetofauna, constructed and installed snake traps and lines, conducted avian surveys and nest monitoring, and facilitated rapport with varying construction companies.*

**\* Humboldt State University; Humboldt, California.** *Role: Reptile Survey Field Crew. Conducted broad-scale herptile surveys to pinpoint highest latitudinal sightings of specific species to determine range shift in relation to climate change. Duties included herptile capture and identification, vegetation surveys along transects, nighttime amphibian surveys, 4X4 driving on rough desert roads, repair and set up of drift fence and pit traps, and remote camping.*

**\* Humboldt State University; Humboldt, California.** *Role: Research Assistant. Volunteered for a Humboldt Wildlife master's student. Duties included broadcasting, locating, and banding barred owls to determine spatial pattern for optimal removal strategy. Conducted nighttime owl surveys, broadcasting owl calls. Assisted in banding. GPS and compass use.*

**\* University of Connecticut; Hartford, Connecticut.** *Role: Research Intern. Worked extensively to determine home ranges of black-backed woodpeckers in the Moonlight Fire in Plumas National Forest. Conducted bird surveys via sight and sound, nest monitoring, and radio telemetry. Assisted in banding and tagging focal species (BBWO), systematic vegetation surveys, and data entry and proofing.*

**\* Kenya Wildlife Service, National Museums of Kenya, Humboldt State University; Humboldt, California.** *Role: Research Assistant. Worked with a diverse team of professors, international biologists, and students conducting avian point counts in Kenya to help determine multiple facets of ecosystem services of wildlife within coffee farms. Conducted avian point counts, systematic vegetation surveys, and data entry and proofing, and facilitated intercultural relations with farm workers and general communities.*

## CHENNIE CASTAÑON, B.S., LEAD BIOLOGIST/ENVIRONMENTAL INSPECTOR

Ms. Castañon is a biologist in SWCA's Half Moon Bay office with biological resource experience throughout California and specialized experience within the San Francisco Bay Area, Central Coast, and Central Valley regions. She has served as a lead for resource surveys and biological compliance monitoring efforts for solar, wind, pipeline, and electric transmission line projects across a diverse range of habitats including coastal chaparral, oak woodlands, riparian corridors, desert environments, agricultural areas, tidal waters and unique habitats such as serpentine grasslands. Her other skills include wetland delineation, construction compliance monitoring, SWPPP compliance inspection, constraints reviews, preparing Mitigation and Monitoring Reporting

Program matrices, biological technical reports and permit applications, and project compliance coordination. Ms. Castañon has conducted suitable habitat assessments, presence/absence surveys and preconstruction surveys for San Joaquin kit fox, bats, American badger, western pond turtle, western spadefoot, Blainville's horned lizard, California red-legged frog, California tiger salamander, Alameda whipsnake, valley elderberry longhorn beetle, burrowing owl, Swainson's hawk, other nesting birds and raptors, and rare plants. Under the supervision of permitted individuals, Ms. Castañon has the following handling and relocation experience with each sensitive wildlife species:

### YEARS OF EXPERIENCE

13

### EXPERTISE

Environmental Compliance Inspection and Monitoring

SWPPP / WPCP inspection

Construction monitoring

Special-status flora and fauna surveys

### EDUCATION

B.S., Conservation Resource Studies;  
University of California, Berkeley; 2009

### PERMITS/ CERTIFICATIONS

U.S. Fish and Wildlife Service  
Threatened & Endangered Species  
Recovery Permit (TE25292B-1),  
California red-legged frog (*Rana*  
*draytonii*) (*R. aurora* d.), CA

California Department of Fish and  
Wildlife Scientific Collecting Permit  
(SC12816), Wildlife Biologist; CA

Qualified SWPPP Practitioner, California  
No. 25633

Certified Erosion, Sediment and Storm  
Water Inspector (CESSWI), California  
No. 3898

### TRAINING

San Joaquin Kit Fox Workshop, Carrizo  
Plains, San Luis Obispo, 2017

Wetland Delineation: Jepson Herbarium  
Workshop, UC Berkeley, 2018

Level II California Red Legged Frog,  
The Wildlife Project; 2017

Rare Pond Species Survey Techniques  
(CRLF, CTS, WPT); 2012

- **California red-legged frog:** ± 200 hours of focused survey, handled and relocated 33 adults, 2 juveniles, 35 metamorphs, 25 tadpoles, 6 egg masses; observed 58 adults, 3 juveniles, 329 metamorphs, 27 tadpoles, 25 egg masses. Over 1000 hours of biological monitoring.
- **Western pond turtle:** ± 80 hours of focused surveys, habitat assessment, capture and relocation, data collection and reporting, and avoidance and mitigation measures planning and implementation.
- **Dusky-footed woodrat:** Over 12 years of experience with surveys and monitoring.

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

**DifWind VII and IX Reclamation Project; EDF Renewables Development, Inc.; Alameda County, California.** SWCA is provided engineering, permitting, and environmental compliance support services for EDF Renewables (EDFR) DifWind VII and IX Reclamation Project on the Altamont Pass Wind Resource Area (APWRA) in Alameda County. SWCA, with support of their subconsultant, is developing grading plans for the removal of more than 300 turbine foundations, transformer pads, and associated equipment, as well as the reclamation of approximately 20 miles of access roads. *Role: Environmental Compliance Inspector/Lead Biologist. Provided workers environmental training, pre-construction survey, burrow excavation, biological monitoring and capture and translocation for California red-legged frog and California tiger salamander, and conducted burrowing owl surveys and occupied den (breeding and non-breeding) assessments.*

**Pajaro Valley Water Management Agency Environmental Project Support; Pajaro Valley Water Management Agency; Santa Cruz County, California.** SWCA provided document sufficiency assessments, environmental documentation, environmental permitting, and technical studies support for five separate water management projects

located in Santa Cruz and Monterey counties. SWCA also provided environmental compliance monitoring, preconstruction surveys, and field staff training for during construction. *Role: Biologist. Performed preconstruction visual surveys for dusky-footed woodrats, California red-legged frog and nesting birds. Provided bi-weekly nesting bird surveys throughout the nesting bird season for the duration of project construction for approximately 2 years. Created environmental training brochure, and provided environmental awareness trainings to the contractor.*

**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.*

**City of San Mateo North Shoreview Flood Improvement Project, 4Leaf, Inc., San Mateo, San Mateo County, California.** SWCA is providing biological monitoring and permit compliance for the decommissioning and replacement of the Coyote Point Pump Station and Poplar Avenue Pump Station in San Mateo, California. SWCA has ongoing coordinating with regulatory agencies (i.e., CDFW, RWQCB, USFWS, USACE, and San Francisco Bay Conservation and Development Commission [BCDC]) regarding project permit measure modifications and/or consultation. *Role: Lead Biologist. Provides workers environmental training, construction monitoring and permit compliance communication to Construction Managers. Performs biological monitoring for California Ridgeway's Rail, nesting birds, bats, rare plants, steelhead, and green sturgeon.*

**Half Moon Bay Drainage Maintenance Biological Services; San Mateo County, California; City of Half Moon Bay.** SWCA prepared a Biological Resource Evaluation (BRE) to support compliance with the City of Half Moon Bay's Local Coastal Program Land Use Plan, the California Coastal Act of 1976, and ultimately for the issuance of a Local Coastal Development Permit for the completion of routine maintenance activities within 22 drainages located within the City's jurisdiction. In addition to the completion of the BRE, SWCA is also assisted the City in reviewing and finalizing a Draft Routine Maintenance Agreement – Streambed Alteration Agreement issued by CDFW. *Role: Environmental Compliance Monitor /Biologist. Provided workers environmental training, pre-construction survey, and biological monitoring for California red-legged frog, San Francisco garter snake and nesting birds during construction activities.*

**Line 107 Foley's Ranch Crossover Upgrade; Pacific Gas and Electric Company; Fremont, Alameda County, California.** Preconstruction surveys, environmental training, biological monitoring, and reporting for a valve lot replacement project in Alameda County near SR 84. *Role: CDFW-designated Biologist. Conducted biological monitoring for California red-legged frog and California tiger salamander during the initial ground disturbance and vegetation clearing within the designated project footprint. Provided an environmental awareness training to all project personnel onsite.*

**Line 107 Mission to Vargas Biological Monitoring; Pacific Gas and Electric Company; Fremont, Alameda County, California.** SWCA provided pre-construction surveys and biological monitoring for California tiger salamander and California red-legged frog. The SWCA team excavated over 300 small mammal burrows using a mechanical-assisted methodology approved by the USFWS and CDFW. Sixteen California tiger salamander were identified, handled, and relocated from the project area to surrounding upland habitat. *Role: CDFW-designated Biologist. Provided workers environmental training, pre-construction survey, burrow excavation, biological monitoring and capture and translocation for California red-legged frog and California tiger salamander.*

**Task Order 14 - Highway 25 Curve Correction Project; ICF International; San Benito County, California.** SWCA provided preconstruction surveys and biological monitoring for the California tiger salamander (CTS) and other special-status species to assure compliance with various agency permits. The SWCA team excavated over 400 small mammal burrows using a mechanical-assisted methodology approved by the USFWS and CDFW. This includes preparation of a California Tiger Salamander and California Red-legged Frog Relocation Plan, pre-construction and clearance surveys, small mammal burrow excavation, weekly compliance inspections, and reporting. *Role: CDFW-designated Biologist. Conducted biological surveys for nesting birds, California red-legged frog and CTS; CTS burrow excavation; monitored construction activities; and prepared survey and monitoring reports.*

**Highway 68 Sink Hole Emergency Repair Environmental Compliance Support; Don Chapin Company, Inc.; Monterey, Monterey County, California.** SWCA provided pre-construction biological surveys, full biological monitoring, and Water Pollution Control Plan management to ensure Caltrans, CDFW, USACE, and Sections 404 and 401 compliance for an emergency culvert failure and replacement project located in western Monterey County, California. SWCA also provided biological monitoring for California tiger salamander and California red-legged frog, as well as nesting avian species during the installation of the new drainage system and identified sediment and erosion control measures necessary to prevent impacts to Federal and State waters. *Role: CDFW-designated Biologist. Provided workers environmental training, pre-construction survey, and biological monitoring for California red-legged frog and California tiger salamander.*

**\*Water System Improvement Program, Crystal Springs-San Andreas Transmission Upgrade Project; San Francisco Public Utilities Commission (SFPUC); San Mateo County, California (2010-2013).** Ms. Castañon performed pre-construction surveys, biological monitoring, water quality monitoring and sampling, and compliance inspection during the upgrade of a 7-mile-long, 60-inch-diameter pipeline and the Lower Crystal Springs Dam within the Peninsula watershed. This project required pre-construction surveys, biological monitoring for San Francisco garter snake, California red-legged frog (CRLF), San Francisco dusky-footed woodrat (DFW), bats, and rare plants. *Role: Environmental Inspector/ Biologist. Performed focused surveys, buffer delineation and daily biological monitoring for California red-legged frog, California Central Coast steelhead, San Francisco garter snake, San Francisco dusky-footed woodrat, mission blue butterfly, nesting birds and roosting bats including Townsend's big-eared bat. Performed hand and dipnetting capture and relocation of CRLF egg masses, tadpoles, juveniles and adults. Live trap and relocated DFW and dismantled middens using hand tools. Observational, photography, and recording role of the capture and relocation efforts of California Central Coast steelhead, prickly sculpin (*Cotus asper*), three-spined stickleback (*Gasterosteus aculeatus*), and Sacramento sucker (*Catostomus occidentalis*) from San Mateo Creek below the Lower Crystal Springs Dam prior to the dewatering of the creek. Fish were captured via electrofishing, dipnetting and minnow traps and were released downstream.*

**Crystal Springs Pipeline No. 2 Replacement Project; San Francisco Public Utilities Commission (SFPUC); San Mateo and San Francisco Counties, California (2011-2013)** included environmental compliance and inspection during the replacement and repair of portions of an existing 19-mile water pipeline. *Role: Environmental Inspector/Biologist. Responsible for evaluating and documenting compliance with project environmental requirements; confirming proper implementation of plans, permits, and specifications; water sampling and analysis in San Mateo Creek; oversight of tree removals. Performed focused surveys, buffer delineation for California red-legged frog, San Francisco garter snake, San Francisco dusky-footed woodrat, mission blue butterfly, and nesting birds.. Live trap and relocated DFW and dismantled middens using hand tools. Performed visual day and dusk emergence and acoustic surveys for bats.*

**Homestead Pond Mitigation Site; San Francisco Public Utilities Commission (SFPUC); San Mateo County, California (2011-2013).** Homestead Pond Mitigation Project was implemented as mitigation for the Water System Improvement Program. This project involved the removal of approximately 450 eucalyptus and Monterey cypress trees from the 5-acre site, the enhancement of an existing pond, the removal of non-native plants, the replanting of native plant species, the removal of a storm drain, and construction of a small concrete bridge. *Role: Project Coordinator/ Biologist. Assisted the regional environmental compliance manager by preparing monthly and quarterly reports. Provided oversight for construction staff and field biologists to ensure project compliance with project permit requirements, monitored vegetation removal, vegetation installation and maintenance, and proper BMP implementation to avoid impacts to California red-legged frog, San Francisco garter snake, dusky-footed woodrat, bats, western pond turtle and nesting birds.*

**Skyline Boulevard Wetland Mitigation Site; San Francisco Public Utilities Commission (SFPUC); San Mateo County, California (2011-2013).** Work at Skyline Boulevard included the creation of a mitigation wetland. *Role: Project Compliance Monitor/ Biologist. Assisted the regional environmental compliance manager by preparing monthly and quarterly reports. Provided oversight for construction staff and field biologists to ensure project compliance with project permit requirements. Provided monitoring for the installation wildlife exclusion fencing, performed pre-construction visual encounter surveys and monitored for San Francisco garter snake, California red-legged frog, dusky-footed woodrat, and nesting birds.*

**Harry Tracy Water Treatment Plant Long Term Improvements Project; San Francisco Public Utilities Commission (SFPUC); San Mateo County, California (2011-2013).** The plant treats and delivers water stored in Crystal Springs and San Andreas reservoirs. Improvements involved replacement of the existing 6.5 million gallon and eight million gallon treated water reservoirs with a new 11 million gallon treated water reservoir, construction of five new filters, conversion of wash water clarifiers to equalization basins, installation of new high-rate clarifiers, and completion of hydraulic improvements to various treatment units, and installation of a new ozone generation facility, sedimentation basins, sludge thickening and dewatering facilities. *Role: Project Compliance Monitor/Biologist. Provided compliance site inspection to ensure project compliance with project permit requirements including but not limited to proper BMP installation, workers environmental training, buffer avoidance delineation for special-status plant species, San Francisco garter snake, California red-legged frog, dusky-footed woodrat, and nesting birds, construction monitoring, SWPPP compliance.*



## DANNY CUELLAR, M.S., FIELD ENVIRONMENTAL LEAD

Mr. Cuellar is a biologist with more than six years of experience performing habitat assessments and preconstruction surveys in various habitat types throughout Southern California. He holds a take permit with the California Department of Fish and Wildlife (CDFW) for Flat-tailed Horned Lizard, is an approved Desert Tortoise Biological Monitor and has received training for numerous endangered species and special-status wildlife and plant species. Since joining SWCA, Mr. Cuellar has been working on the Southern California Edison (SCE) deteriorated pole projects as well as working on the final reports submitted directly to SCE. In addition, Mr. Cuellar monitors SCE crews in critical desert tortoise habitat and surveyed for Coachella Valley milk-vetch.

### YEARS OF EXPERIENCE

6

### EXPERTISE

Southern California special-status wildlife and plant species and their habitats

TerraSync Software (Trimble Geoexplorer 6000 Series)

Botanical (rare plants) surveys

Approved Desert Tortoise Biological Monitor

### EDUCATION

M.S., Biology; California State University, Long Beach; 2011

B.S., Biology; e: Zoology; California State University, Long Beach; 2006

### REGISTRATIONS / CERTIFICATIONS

Wetland Delineator Certification (Wetland Training Institute); 2015

Venomous Snake Handler (Project Authorized); 2013

Helicopter Flight and Safety Certification (PAR Electrical Contractors, Inc. and SCE- Southern California Edison); 2013

Flat-tailed Horned Lizard (*Phrynosoma mcallii*) take and possession permit (CDFW- California Department of Fish and Wildlife); 2013

### TRAINING

Arroyo Toad (*Anaxyrus californicus*) workshop, The Wildlife Society

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

**SCE CWA 2022 EHSync Bio Resources Clearance Support, Zsolt and Public Lands Regions; Multiple Counties, California; Southern California Edison Company.** Providing biological resource supporting for processing Environmental Screening Forms (ESFs) for SCE's EHSync database for SCE regions and public land. *Role: Biologist, Danny Cuellar, acted as a surveyor, report writer, and monitor.*

**SCE CWA 2023 EHSync Bio Resources Construction Support, Zsolt and Public Lands Regions; Multiple Counties, California; Southern California Edison Company.** Providing provide biological resource construction support for Southern California Edison (SCE) projects within SCE regions and public land. Biological support general and nesting bird preconstruction surveys, construction monitoring and reporting. *Role: Biologist, Danny Cuellar, acted as a surveyor, report writer, and monitor.*

**SCE CWA 2024 EHSync Bio Resources Clearance Support, Rachael and Public Lands Regions; Multiple Counties, California; Southern California Edison Company.** Providing biological resource support for processing Environmental Screening Forms (ESFs) in SCE EHSync database for SCE regions and public lands including USFS. Biological support will include biological desktop review, biological additional analysis, and completion of biological requirements with ESFs assigned through a worklist in EHSync. *Role: Biologist, Danny Cuellar, acted as a surveyor, report writer, and monitor..*

**SCE CWA 2047 Transmission Civil Operations; Multiple Counties, California; Southern California Edison Company.** CWA 2047 reflects the Southern California Edison TCO program for annual road grading along the distribution or transmission circuit lines throughout SCE service territory. There are multiple components to CWA 2047, such as project creation for GIS maps and files, Biological pre-reviews for the specified project, and Construction support, such as preconstruction surveys and monitoring in order to follow the biological clearance measures issued. *Role: Biologist, Danny Cuellar, acted as a surveyor, report writer, and monitor.*

**\*West of Devers Upgrade Project (WODUP); Riverside County, California; Southern California Edison (SCE).** The West of Devers Upgrade Project (WODUP) consists of removing and replacing 48 miles of existing 220 kV transmission lines with new double-circuit 220 kV transmission lines, between the existing Devers Substation (near Palm Springs), Vista Substation (in Grand Terrace), and San Bernardino Substation. *Role: Biologist. Responsibilities for project: CE's Field Reporting Environmental Database (FRED) 2.0; Knowledgeable with many Southern California special-status wildlife and plant species and their habitats; Trained to handle venomous snakes; Approved Desert Tortoise Biological*

*Monitor by the BLM and CDFW to perform monitor tasks specified in the biological opinion, including enforcement of the terms and conditions*



(Southern California Chapter); 2017

Bird Banding Workshop at Starr Ranch Bird Observatory, North American Banding Council; 2015

Volunteer Bald Eagle (*Haliaeetus leucocephalus*) count survey in Silverwood Lake State Recreation Area, US Forest Service, California; 2015

Bald Eagles (*Haliaeetus leucocephalus*) and Golden Eagles (*Aquila chrysaetos*) in California and Nevada Workshop, The Wildlife Society (Sacramento-Shasta Chapter); 2015

Amphibians of the San Francisco Bay Area Workshop, Laguna de Santa Rosa Foundation; 2014

California Tiger Salamander (*Ambystoma californiense*) Workshop, Alameda County Resource Conservation District; 2014

California Red-legged Frog (*Rana draytonii*) Workshop, Alameda County Resource Conservation District; 2014

Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), USFWS; 2014

El Segundo Blue Butterfly (*Euphilotes battoides allyni*) and Palos Verdes Blue Butterfly (*Glaucopsyche lygdamus palosverdesensis*), USFWS; 2014

Quino Checkerspot Butterfly (*Euphydryas editha quino*), USFWS; 2014

Western Burrowing Owl (*Athene cunicularia hypugaea*) Workshop, Elkhorn Slough Foundation; 2013

Western Pond Turtle (*Actinemys marmorata*) Workshop, Elkhorn Slough Foundation; 2013

Western Yellow-billed Cuckoo (*Coccyzus americanus*) Workshop, Southern Sierra Research Station; 2013

Flat-tail Horned Lizard (*Phrynosoma mcalli*) Workshop, CDFW- California Department of Fish and Wildlife Permit; 2013

Southwestern Willow Flycatcher (*Empidonax traillii extimus*) Workshop.

throughout all phases of transmission line construction; Proficient in TerraSync Software (Trimble Geoplotter 6000 Series). Acquiring and managing data for true-up; Led botanical (rare plants) surveys (Spring and Summer 2015) and managed 16 botanists/biologists in the field; Led small mammal pedestrian survey, including Stephen's Kangaroo Rat, San Bernardino Kangaroo Rat, and Los Angeles Pocket Mouse (Spring 2016). Managed 6 small mammal biologists in the field.

**\*McCoy Solar and Blythe Solar Projects; Riverside County, California; NextEra Energy Resources.** The McCoy Solar Project consists of 4,200 acres of a new 750-megawatt photovoltaic solar energy generating facility, 13 miles northwest of Blythe, California. The Blythe Solar Project consists of 4,138 acres of a new 485-megawatt photovoltaic solar energy generating facility, 10 miles northwest of Blythe, California. A 230kV gen-tie line will connect the solar energy generating facilities to the Southern California Edison Colorado River Substation, located 5 miles to the southwest. *Role: BLM (Bureau of Land Management)*

**\*The County of Riverside Environmental Programs Department; California.** The Western Riverside County Multiple Species Habitat Conservation Plan (WR-MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in Western Riverside County. The MSHCP Plan Area encompasses approximately 1.26 million acres (1,966 square miles). This HCP is one of the largest plans ever attempted. The Coachella Valley Multiple Species Habitat Conservation Plan (CV-MSHCP) provides a regional vision that will help conserve the Coachella Valley's natural heritage. CV-MSHCP protects 240,000 acres of open space and 27 species. *Role: Contract Biologist. Responsibilities for the County: Knowledgeable of both WR-MSHCP and CV-MSHCP plans; Consulted with applicants and reviewed several HANS (Habitat Assessment and Negotiation Strategy), EIRs (Environmental Impact Report), BHRs (Restoration Plans) and ERPs (Expedite Review Process); Proficient in the County of Riverside's Land Management System (LMS); Conducted field reconnaissance to corroborate reports; Represented and spoke on behalf of Environmental Programs on several LDC (Land Development Committee) meetings; Represented Environmental Programs on Western Riverside County Regional Conservation Authority (RCA) meetings; Assisted on several consulting projects (City of Menifee, Facilities Management, Flood Control, Transportation, and Waste Management); Conducted several surveys (Including least Bell's vireo (*Vireo bellii pusillus*), western burrowing owl (*Athene cunicularia hypugaea*), and MBTA; Proficient on ArcGIS (mapping program) on producing HANS/ERPs maps as well as CVMSHCP species searches; Successful on analyzing several permits/plans/maps for biological approval (CZ, CUP, EA, EIR, FTA, GPA, BGR, PM, PP, PAR, PUP, SP, SMP, and TR).*

**\*Deteriorated Pole Project (Agua Caliente Indian Reservation); Riverside County, California; Southern California Edison Company.** *Role: Biologist. Responsibilities for project: Surveyed for Coachella Valley fringe-toed lizard (*Uma inornata*) (CVFTL) by raking the work area before crew arrived; Monitored on CVFTL habitat; Observed several CVFTL near the work area; Kept CVFTL at a distance from the work area by walking the perimeter. Ideal temperature (96-112 Fahrenheit) was also observed.*

**\*Devers-Palo Verde No.2 Transmission Line Project (DPV2); Riverside County, California; Southern California Edison (SCE).** The Devers-Palo Verde No. 2 (DPV2) Transmission Line Project consists of 152 miles of new 500 kV transmission line within an existing transmission line corridor from approximately Blythe to Hemet in Riverside County,

## SHARIF DURZI, B.S., PROJECT MANAGER, BIOLOGIST

Mr. Durzi is an experienced biologist with over eight years of experience. His research interests include multiple species conservation, pollinator habitat restoration, threatened and endangered species surveys, and invasive species eradication. He has lead field efforts across the western United States to manage biological crews that are implementing restoration plans for pollinator and native species recovery. Mr. Durzi has experience with Endangered Species Act and California Endangered Species Act compliance on federal lands, and has extensive experience managing projects at the nexus of sensitive pollinator state and federal recovery needs.

### YEARS OF EXPERIENCE

8

### EXPERTISE

Pollinator habitat restoration

Sensitive species surveys

Field entomological ID

Noxious weed management

Solar and wind energy projects

Construction monitoring

Academic Publications – *Invertebrate Ecology*

### EDUCATION

B.A., Environmental Sciences,  
Ecology & Evolutionary Biology  
University of Colorado; 2015

### CERTIFICATIONS

Wilderness First Aid; National Outdoor  
Leadership School 2018

Certified Remote Pilot; Federal Aviation  
Administration 2019

Quino Checkerspot Butterfly Recovery  
Permit; In training 2022

California Rapid Assessment Method;  
Certified Practitioner 2022

### MEMBERSHIPS

Member; Ecological Society of America

Member; California Native Plant Society

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

**\*Monarch Wings Across California; Los Banos, California.** In partnership with Caltrans, Ducks Unlimited, California Department of Fish and Wildlife, and Toyota Motor Corporation, Pollinator Partnership will conduct a series of migratory habitat enhancements and monitoring along the California State Route 152 corridor that will provide an excellent monarch breeding habitat corridor for the western monarch population. *Role: Project Manager and Habitat Specialist. Project planning, budgeting, restoration implementation. Reporting revenue and expenditures to granting agencies.*

**Wetlands Reserve Program/Wetland Reserve Easements Restoration and Monitoring; American Conservation Experience (ACE); Nationwide.** The ACE, and their project partner SWCA, have been providing easement compliance and ecological monitoring and restoration in support of the Wetlands Reserve Program and the Agricultural Conservation Easement Program – Wetland Reserve Easements. *Role: Program Manager. Provides management of staff and technical expertise to partner organizations and Natural Resources Conservation Service.*

**Copper Fire Woodlands Restoration Project; National Fish and Wildlife Foundation (NFWF) and the Angeles National Forest (ANF); California.** SWCA teamed with the non-profit entity, Tree People, to support the NFWF and the ANF with the development of silvicultural prescriptions and habitat restoration in areas that were impacted by the Copper Fire. *Role: Biologist. Conducted field surveys and prepared biological reports.*

**Confidential Restoration Project; Confidential Client; California.** SWCA is working to draft restoration designs to return a portion of the Mojave River to its floodplain and restore riparian habitat for special-status birds, amphibians, and fish along the river. *Role: Restoration Ecologist. Conducting field surveys and document preparation to assist in habitat revegetation and restoration.*

**\*Native Plant Restoration and Argentine Ant Eradication Program; U.S. Navy Naval Auxiliary Landing Field Station San Clemente Island (NALF SCI); California.** Conducted native plant surveys, restoration of vegetative communities, and implemented eradication protocol for the Argentine ant on the NALF SCI. *Role: Crew Leader. Lead field teams conducting biological surveys and monitoring for endemic and sensitive flora and developed and implemented protocol for invasive species management.*

**Camino Solar Environmental Support; Aurora Solar, LLC; Kern County, California.** SWCA was retained to support National Environmental Policy Act and California Environmental Quality Act compliance for a 44-MW solar photovoltaic project located on a mix of private and Bureau of Land Management lands. *Role: Biologist. Conducted Joshua tree inventory and health status surveys, prepared Joshua tree impact plan, and oversaw translocation of approximately 35 Joshua trees.*

**Antelope Expansion 3 Project Environmental Services; sPower Development Company, LLC; Los Angeles County, California.** SWCA prepared a mitigated negative declaration (MND) for a 150-acre solar project in unincorporated Los Angeles County. Our specialists conducted technical studies to support the findings of the MND, including rare plants, jurisdictional delineation, and general biological resources. *Role: Biologist. Conducted field surveys and prepared biological reports.*

**\*Burrowing Owl Clearance Survey; Lockhart II Solar Energy Site; San Bernardino County, California.** Conducted pre-construction clearance surveys of possible Burrowing Owl burrows by employing 26 trail cameras on over 20 burrows. 30 hours were spent on placement and review of photographs. No Burrowing Owls were detected.

**\*Greater Prairie-Chicken Population Survey; Kansas Department of Wildlife, Parks and Tourism; Kansas.** Project in partnership with Kansas Department of Wildlife, Parks and Tourism. Following transect lines as a passenger in a helicopter, documented greater prairie-chicken leks during courtship rituals noting group sizes, habitat type, and GPS location over a six-week period. 140 hours were spent on Greater Prairie-chicken surveys.

**\*Integrated Monitoring in Bird Conservation Regions (IMBCR) Bird Population Survey; South Dakota.** Following IMBCR protocol, travelled to remote and inaccessible locations using GPS, conducted up to 30 point-count surveys employing knowledge of bird songs to identify and document up to 175 bird species. Documented bird species, assigned IDs, age, ID method, GPS location, and weather. Established fieldwork schedule and maintained open lines of communication with internal management as well as landowners, BLM offices, and National Park Service in South Dakota. 180 hours were spent on point-count surveys.

**\*National Science Foundation- Research Experience for Undergraduates (REU) Fellow; Ogallala, Nebraska.** Travelled to remote worksites to collect and record nesting data on cliff swallow adults and nestlings, from nest construction to fledgling age. Handled, measured, aged, and sexed over 500 adult and nestling birds. Planned daily field activities, schedules, daily meetings, managed field equipment and staff, and arranged supplies for four simultaneous projects across 40 sites.

## SARAH EPSTEIN, B.S., PROJECT BIOLOGIST

Ms. Epstein is a Project Biologist in SWCA's Reno, Nevada office. She has 6 years of experience as a biologist, environmental planner, and visual resources specialist. She has worked with a variety of clients, including regulatory agencies, utility companies, mines, and nonprofit organizations, on a variety of projects ranging from development to restoration. Her areas of expertise include managing National Environmental Policy Act (NEPA) projects, supporting the preparation of NEPA documents, and the inventory and analysis of visual resources. Her current visual resource project responsibilities include pre-planning for sufficient baseline data collection, collecting field data, and completing visual resource analyses according to agency guidelines. She prepares technical documents presenting the findings of visual resources assessments and performs analyses for NEPA documents, including for Environmental Assessments and Environmental Impact Statements.

### YEARS OF EXPERIENCE

6

### EXPERTISE

Completed BLM Visual Resource Management analysis methods for multiple thousands of acres of development projects

Project management

NEPA documentation and compliance

Technical writing

Federal, state, and local permitting

Restoration

Special-status species surveys

### EDUCATION

B.S., Environmental Science, Technology, and Policy c: Ecology; California State University, Monterey Bay, California; 2017

### REGISTRATIONS / CERTIFICATIONS

MSHA Part 48 New Miner Certification, Nevada No. 5000-23; Mine Safety and Health Administration; 2021

Project Management Bootcamp, PSMJ Resources, Inc.; 2022

### SELECTED PROJECT EXPERIENCE

**Resource Management Plan Amendment for Visual Resource Management in Nevada; U.S. Bureau of Land Management; Nevada.** The Bureau of Land Management (BLM) Nevada State Office retained SWCA to support efforts associated with future state-wide Resource Management Plan (RMP) amendment processes for six BLM district offices in Nevada. SWCA conducted visual resource inventories (VRIs) within each district office and prepared a findings document to support future state-wide RMP efforts. *Role: Visual Resources Specialist; supported the VRI update by collecting photo documentation and other baseline visual resources data throughout Nevada, performed post-processing to analyze field data and create Scenic Quality Rating Units and Sensitivity Level Rating Units, and collaborated with BLM staff. The VRI was performed by following methods in BLM Manual 8410 (Visual Resource Inventory).*

**Confidential Transmission Line Upgrade Project; Confidential Client; Clark County, Nevada.** SWCA provided baseline visual resources data collection and analyses for a proposed transmission line upgrade. Data analyses included BLM Visual Resource Management (VRM) analysis methods and BLM National Scenic and Historic Trails Inventory, Assessment, and Monitoring techniques. SWCA authored a National Scenic and Historic Trail Report with results from the Trails assessment for delivery to BLM Southern Nevada District. *Role: Visual Resources Specialist; collected visual resources baseline data and conducted analyses using BLM Manual 8431 (Visual Resource Contrast Rating) and BLM Manual 6280-1 (National Scenic and Historic Trails Inventory, Assessment, and Monitoring).*

**Confidential Solar Generation Project; Confidential Client; Clark County, Nevada.** SWCA provided baseline visual resources data collection and analyses for a proposed solar power facility. Data analyses included BLM VRM analysis methods and BLM National Scenic and Historic Trails Inventory, Assessment, and Monitoring techniques. *Role: Visual Resources Specialist; collected visual resources baseline data and conducted analyses using BLM Manual 8431 (Visual Resource Contrast Rating).*

**Confidential Mining Project; Confidential Client; Elko County, Nevada.** SWCA provided baseline visual resources data collection and analyses for a proposed open pit mining operation. Data analyses included BLM VRM analysis methods, and the preparation of a baseline report intended for supporting the project's Environmental Impact Statement. *Role: Visual Resources Specialist; collected visual resources baseline data and conducted analyses using BLM Manual 8431 (Visual Resource Contrast Rating).*

## NATHAN KOLBERG, B.S., BIOLOGIST

Nathan is staff biologist with an academic background in wildlife management and conservation. Nathan has a strong foundation in bird identification along coastal California, including experience with acoustic detection, and native plant identification in both northern and southern regions of California. Nathan's is adept at providing construction monitoring for biological compliance, nesting bird surveys, restoration support, and grid-line searches.

Mr. Kolberg is experienced in conducting pre-/post- construction surveys, habitat suitability surveys, biological monitoring, writing daily reports as well as conducting project Worker Environmental Awareness Program (WEAP) trainings.

### SELECTED PROJECT EXPERIENCE (\* DENOTES PROJECT EXPERIENCE PRIOR TO SWCA)

#### YEARS OF EXPERIENCE

1.5

#### EXPERTISE

Ornithology and bird surveys. Acoustic detection and sonogram vetting.

Wildlife Surveys

Biomonitoring

Daily Monitoring Reports

#### EDUCATION

B.S., Wildlife – Wildlife Management & Conservation; Humboldt State University; 2020

#### REGISTRATIONS / CERTIFICATIONS

ArcGIS Collector.

#### TRAINING

HAZWOPER 40 hour training certificate. 2022

#### MEMBERSHIPS

The Wildlife Society Western Section

**Desert Tortoise Translocation- Post Survey Project. Site & Release Area; Confidential Client; Pahrump, Nevada.** Grid-line surveys for Tortoise translocation, burrow excavations for future solar array installation. Assisted over 4-week period including 3 successful extractions and radio-tag procedures. *Role: Biological Technician. Member of 4-5 person crew (with multiple crews onsite) to walk transect lines to visually search for tortoise burrows or live tortoises, then conduct excavations, extract tortoises, and assist with radio tagging prior to health-check and relocation by authorized biologists onsite.*

**Natural Resources Consultant Support; San Diego Gas & Electric; San Diego County, California.** Multiple environmental on-call projects to support environmental compliance of SDG&E work including Fire Risk Mitigation Initiatives (FiRM) in San Diego County. *Role: Biological Technician. Carried out pre-construction surveys on shared/leased undeveloped/sensitive habitat on utility service road and pole-replacement projects. Surveyed for present species of flora and fauna that would be under impact from these types of maintenance or replacement work.*

**Overhead Transmission to Underground Conversion Project; Confidential Client; Alpine, San Mateo County, California.** Provided environmental compliance management during the construction of the project, SWPPP compliance management, biological field studies and reporting, and environmental inspection. *Role: Biological Technician. Providing Biological resource surveys, biomonitoring, environmental compliance and reporting support. Responsible for restoration area monitoring documentation, GIS mapping and invasive plant monitoring on the site. Surveyed for invasive and special status plants around project site and assisted with site restoration with continued monitoring and removal of invasive plants.*

**Postconstruction Env Monitoring; Confidential Client; Mohave County, Arizona.**

Wind turbine grid-line surveys for migratory bird and bat fatalities. Assisted over 3-month period, approximately 550 hours. *Role: Biological Technician. Member of 5-person crew (2 crews total) walking transect lines to survey base of wind turbines, visually searched for carcasses. Assisted with bird identification and data collection for client's annual report*

**Flat-tailed Horned Lizard Monitoring; UXO – Munition Response Program. Ocotillo Wells, California.** Conducted daily surveys for Flat-tailed Horned Lizards (FTHL) on a unexploded ordnance (UXO) response worksite. Daily surveys were conducted three times per day with frequent road sweeps, some documentation of active burrows and reptile activity, and daily reporting. Assisted over 9-week period, approx. 330 hours. *Role: Biological Monitor. Responsible for conducting routine surveys and frequent road sweeps to detect FTHL in general worksite with daily reporting.*



**Burrowing Owl and nesting bird survey. KMI CA SWML Integrity Dig. Imperial County.** Conducted nesting bird surveys and active nest searches in BUOW habitat, reporting and advising subcontractors prior to work about any nesting activity in vicinity of work areas. *Role: Biologist, responsible for conducting thorough nesting and BUOW surveys within buffer zone of integrity dig sites and daily reporting to client of findings.*

**Suncrest Overhead to Underground Conversion Project; Confidential Client; Alpine, San Mateo County, California.** SWCA is currently providing planning, permitting and construction monitoring support for a dynamic reactive power support facility and associated 230-kV transmission line in southern 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: Biological Technician. Conducting biological survey sweeps of work areas to determine presence of nesting birds and ensure construction compliance with environmental regulations. Provision of WEAP trainings to construction crew and monitoring project work. Documentation of construction compliance, minor deviations, and coordination with the client.*

**Carlsbad/Carroll Canyon Habitat Restoration; Kinder Morgan Contracting Services LLC; San Diego County, California.** This project included work in sensitive riparian habitats in jurisdictional wetlands, within uplands within the Multi-Habitat Planning Area of the City of San Diego and other preserves, and adjacent to nesting bird habitat. *Role: Biological Technician. Responsibilities included construction monitoring, vegetation monitoring prior to construction and vegetation maintenance activities, monitoring for nesting birds and ensuring compliance with waters permitting*

**Nesting Bird Surveys; San Diego Gas & Electric; California.** Multiple preconstruction nesting bird surveys and reporting to support SDG&E's environmental compliance and NCCP requirements. *Role: Biological Technician. Responsible for coordinating and carrying out preconstruction nesting bird surveys, survey reporting and recommending mitigation measures including avoidance buffers, biomonitoring or additional protected species protocol surveys.*

## TAMARA KRAMER, B.S., ASSOCIATE PROJECT BIOLOGIST

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

**Item 390 PO5900045235 As Built Drone Flight Environmental Clearance; San Diego Gas & Electric; San Diego County, California.**  
*Role: Biological Technician.*

**Calnev ML1 Pipeline Evaluation; Kinder Morgan Contracting Services LLC; San Bernardino County, California.** *Role: Biological Technician.*

**Carlsbad/Carroll Canyon Habitat Restoration; Kinder Morgan Contracting Services LLC; San Diego County, California.** SWCA has provided habitat assessments, natural resource constraints surveys, wetlands permitting, habitat restoration planning, and cultural resource studies for pipeline anomaly testing and repair projects throughout San Diego County, including in the Penasquitos Lagoon Watershed. These projects have included work in sensitive riparian habitats in jurisdictional wetlands, within uplands within the Multi-Habitat Planning Area of the City of San Diego and other preserves, and adjacent to nesting bird habitat. *Role: Biological Technician.*

**East Valley Water District Resource Studies; Albert A. Webb Associates; City Of Highland, San Bernardino County, California.** SWCA has been retained to support Biological, Cultural, and Paleontological Resources surveys and technical reporting for the EVWD Canal 3 reservoir improvements project. The project includes the proposed installation of a new booster pump station, two storage reservoirs, pipeline connections and demolition of an existing booster pump station on a 3.8-acre parcel of land. Deliverables include a Biological Technical Report, a Paleontological Technical Report, a Cultural Resources Technical Report; as well as support for AB 52 consultation to support environmental constraints analyses, CEQA Compliance and Permit Acquisition. *Role: Biological Technician.*

**SCE EC 025 Construction Support Intake; Southern California Edison Company; County, California.** *Role: Biological Technician.*

#### YEARS OF EXPERIENCE

5

#### EDUCATION

B.S., Ecology and Evolutionary;  
University of California Santa Cruz;  
2016

#### REGISTRATIONS / CERTIFICATIONS

Wilderness First Responder Certified;  
National Outdoor Leadership School  
(NOLS); 2016

HAZWOPER Certified; 2022

Adult First Aid/CPR/AED Certified;  
American Red Cross; 2023

#### TRAINING

Desert Tortoise- Field Certification; 2020

**ERM SCE 115.100 Det Pole Intake; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE112 Veg Management; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE113.100 DET Pole Intake; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE113.101 DET Pole Desktop Review; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE114-100 GRM Intake; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE114-101 GRM Super IO's; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE114-200 Covered Conductor Projects (CCP) Distribution; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE114.102 Requested IO's; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE115.101 Det Pole Desktop Review; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE116.100 GRM (GO131D) (Eastern, Metro East, Orange) Transmission; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**ERM SCE116.101 GRM (GO131D) (Eastern, Metro East, Orange) Transmission; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE116 GRM (GO131D) (Eastern, Metro East, Orange) Transmission; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE126 Short Term Emergency Response; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE126.01 Continued Short Term Emergency Response; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE128 Avian and Wildlife Emergency Response Support; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE145-100 Dist GRM, Desert - Intake/Desktop Review/Construction Support; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE145-101 Dist GRM, Rurals South - Intake/Desktop Review/Construction Support; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE145-102 Dist GRM, Other - Intake/Desktop Review/Construction Support; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE145-200 Dist GRM, Desert - CCP; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE145-201 Dist GRM, Rurals South - CCP; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE146-100 Dist Det Pole, Desert - Intake/Desktop Review; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE146-101 Dist Det Pole, Rurals South - Intake/Desktop Review; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE151-101 Det Pole Desktop Review; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**ERM SCE152-102 TR G0131D Requested IOs; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**SCE ES 001 Avian Response Support; Southern California Edison Company; Pedley, Riverside County, California. Role: Biological Technician.**

**SCE ES 004 Small Emergencies: All Disciplines; Southern California Edison Company; Menifee, Riverside County, California.**  
SWCA is under a three-year on-call contract, to provide environmental consulting services (biological, cultural and paleontological, water quality/wetland permitting, licensing), for moderate to large scale utility system upgrades and improvements (~\$300,000-\$3M) for SCE's Transmission and Distribution Organizational Unit. Projects include but are not limited to: support for CPUC licensed projects, PEA development, National Environmental Policy Act (NEPA) projects, renewable interconnections, execution of environmental mitigation, and environmental oversight during construction. *Role: Biological Technician.*

**SCE ES 007 Emergency Response Intake; Southern California Edison Company; Los Angeles County, California. Role: Biological Technician.**

**Item 670 PO5900045235 eTS 3385601 Access Road Maintenance, SWPL, Proctor Valley; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 770 PO5900045235 eTS 3717402 CMP TL642 Pole Replc, Z184518, Z180658, FACID-Z184518-ET\_Structures; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045356 eTS 5055901 C204 HFTD, Fuse AP Replc; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 430 PO5900045235 eTS 5548701 TL621 Pole CO Z284298, Z284299 City of SD; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 430 PO5900045235 eTS 5548701 TL621 Pole Replacement - Z284298, Z284299; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 360 PO5900045235 eTS 5558103 Boulevard Microgrid - Nava Property - Parcel Bio Recon; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 270 PO5900045235 eTS 5634801 Construction Monitoring CMP TL665 CO 3 Poles San Diego; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045355 eTS 5716201 NON CMP POLE OH WORK 7 POLES RAMONA; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045352 eTS 5858501 CMP POLE C/O P174409 LAKESIDE; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 380 PO5900045235 eTS 5886101 DCRI SBA Repeater Telecom Site (St 82040); San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045350 eTS 5900201 ODS AH Repair UG Conduit to P839968; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045355 eTS 5908701 MPH 37-0294 EZ LIVING MHP; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045354 eTS 5931501 ODS AH Pole CO Car Vs Pole P116357 Vista; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045351 eTS 5971401 RAMP 507 Reg. 1344 Fence/Gas Reg. Station 1344, Chula Vista; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045355 eTS 5986601 CMP P718415 POLE C/O Fallbrook; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 60 PO5900045235 eTS 6051101 ESH DIAR T2 B5 Pole Replacement; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 450 PO5900045235 eTS 6116401 TL 13811 EOC Z619997 Tower Mitigation; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045352 eTS 6127701 Pole C/O P172953, Jamul; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045352 eTS 6137801 CMP POLE C/O P134863; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 400 PO5900045235 eTS 6207901 Nest Survey Prior to Arundo Trimming; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 650 PO5900045235 eTS 6232001 Path to Pole P95158, P95159, P97255 SD; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045356 eTS 6241801 OH NON-CMP POLE C/O P25424; San Diego Gas & Electric; San Diego County, California.**  
*Role: Biological Technician.*

**Item 10 PO5900045351 eTS 6255001 C168: WUI AP P474005J; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045355 eTS 6273801 Precon Nest Survey Request: P162523 & P162524; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 880 PO5900045235 eTS 6327301 CPEN TL6971 POLE REPLACEMENT Z21273; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045355 eTS 6328901 P108035E CMP RFS I238 DUE JUNE; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045355 eTS 6364501 CMP POLE C/O I246 P213504 P233850; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045356 eTS 6397301 P193618 OC JULY 23 OH CMP POLE C/O; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 680 PO5900045235 eTS 6405001 Bear Valley Parkway ECS Relocation; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045351 eTS 6421001 RFS Poles in Lagoon, Chula Vista; San Diego Gas & Electric; San Diego County, California.**  
*Role: Biological Technician.*

**Item 10 PO5900045355 eTS 6490301 P209369 TIER 3 C/O POLE DUE OCT 2023; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045357 eTS 6539401 CMP TIER 3 POLE C/O P162255; San Diego Gas & Electric; San Diego County, California.**  
*Role: Biological Technician.*

**Item 570 PO5900045235 eTS 6540601 TT16296 TL670/ TL13810 Z479541/ Z479542; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 60 PO5900045235 eTS 6562801 NELSON RESIDENCE Intersect Z118069 BIA; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045355 eTS 6565301 EXCAVATE ACC PATH FROM P218416-P218418; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045356 eTS 6572501 VETS 11868 - P39064; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 900 PO5900045235 eTS 6584201 8 Pole PSR and REIR on Camp Pendleton; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045356 eTS 6588301 P321828 SADDLEBACK CHURCH RFS POLE LINE; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045350 eTS 6592001 ESH C1448 A DIAR T2 ENG P\_Z96512\_Anc; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 640 PO5900045235 eTS 6604201 Monitors and Bird Survey Request; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 60 PO5900045235 eTS 6673501 ESH C0221 AK DIAR T2\_3 Poles\_Anza Borrego; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*



**Item 60 PO5900045235 eTS 6684301 C0202 D DIAR T2 NONENG N\_Z21187\_P29875; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 60 PO5900045235 eTS 6713101 ESH C0221 AI DIAR T2\_P478381 Anza Borreg; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045357 eTS 6741201 P410486 CMP TIER 3 POLE CO DECEMBER; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 60 PO5900045235 eTS 6756501 ESH C0079 D DIAR T2 ENG N P273613; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 60 PO5900045235 eTS 6756701 ESH C0079 E DIAR T2 ENG N; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 800 PO5900045235 eTS 6784001 TL649 Z183545, Z183546, Z183547, Z183548; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045355 eTS 6788301 P224336 CMP CO POLE due 22024 Tier 2; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045356 eTS 6790601 P36541 OH DETERIORATED FACILIT - MISC; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045356 eTS 6801401 P21495 OC DEC 23 OH CMP POLE C/O; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 790 PO5900045235 eTS 6825401 TL6971 POLE REPLACEMENT Z21277 & Z21278; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Former Camp San Luis Obispo Rifle Grenade Range MRS; Bristol Environmental Remediation Services, LLC; San Luis Obispo County, California.** Under the USACE's FUDS program, SWCA supported Bristol Environmental Remediation Services, Inc. with a Remedial Investigation and Feasibility Study (RI/FS) at the Former Camp San Luis Obispo Rifle Grenade Range, for unexploded ordnance (UXO) at munitions response site (MRS) 01. As a first step, SWCA conducted natural and cultural background research for the project, surveys, cultural resources recording, two reports, and monitoring, if necessary. Over 80 species of rare plants and several threatened and endangered species are present in the vicinity, including California red-legged frog, California tiger salamander, southwestern willow flycatcher, and Morro Bay kangaroo rat, necessitating focused surveys by highly qualified biologists. Next field surveys were conducted to document existing conditions and identify special status species and cultural resources at the site. SWCA has prepared work plans approved by USACE and other resource agencies and has conducted complete cultural and natural resources surveys of the area. Following the preparation of technical memoranda to guide the RI/FS work in avoiding impacts to sensitive resources, SWCA biologists and archaeologists provided monitoring support to Bristol's team during RI/FS work between May and October of 2021.

*Role: Biological Technician.*

**Item 10 PO5900045351 eTS 52360 MCU-CM District; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045351 Natural Resources-MCU-CM; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045352 Natural Resources-MCU-EA; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045353 eTS 5234101 CNF C442 PSPS SCADA, P259843, Mt Laguna; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045353 eTS 5634401 CNF, OH Extn. Inst. P295784, Alpine; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045353 eTS 5808101 PARKLAND ELECTRIC OH EXT JAMUL; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045353 eTS 5877701 CMP Pole Replc C445 P130371, Boulevard; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045353 Natural Resources-MCU-ME; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045354 eTS 5953901 CMP POLE C/O P254971 ENCINITAS; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045355 eTS 5712601 NON CMP P811534; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045355 eTS 5780201 CMP C/O POLE P714922 San Marcos; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045355 eTS 5867201 ESH APP C0239 SEC A OH & SCADA; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045357 eTS 5743201 POLE CO P107686 SANTA YSABEL; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045357 eTS 5282301 BIA CMP Pole CO P717407J Santa Ysabel; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 10 PO5900045831 TL 649 Phase 2 Wood to Steel; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 110 PO5900045235 Natural Resources Consultant Support; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 120 PO5900045235 Natural Resources Consultant Support; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 130 PO5900045235 Natural Resources Consultant Support; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 140 PO5900045235 eTS 52054.01 TL 6945 & 6930, Tap in Cotter Key, Z181665, Escondido; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 170 PO5900045235 eTS 51554.01 (Escondido) and eTS 50769.01 (Oceanside) Pole Replacement; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 180 PO5900045235 eTS 52224.01 TL99901 Pole Replc Z613906 Escondido; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 190 PO5900045235 eTS 55043.01 TL 668 Nest Removal Z91990; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 20 PO5900045235 Elec Trans OH CMP; San Diego Gas & Electric; California. Role: Biological Technician.**

**Item 220 PO5900045235 eTS 52647.01 TL9990 Pole Replc Z610439 Escondido; San Diego Gas & Electric; San Diego County, California. Role: Biological Technician.**

**Item 270 PO5900045235 eTS 5634801 CMP TL665 CO 3 Poles San Diego; San Diego Gas & Electric; San Diego County, California.**  
*Role: Biological Technician.*

**Item 280 PO5900045235 eTS 5773801 TL13836 TT15897 Anchor Rods Z226466; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 30 PO5900045235 Nesting Bird Surveys; San Diego Gas & Electric; California.** *Role: Biological Technician.*

**Item 300 PO5900045235 eTS 4141901 Pole Replc, Z96505, San Diego - Nest Survey; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 310 PO5900045235 eTS 5279801 CMP Pole Replc P224438, San Juan Capis; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 320 PO5900045235 eTS 5636301 Z219429 Access Rd Erosion Repair; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 330 PO5900045235 eTS 5621401 Repl Ceramic Post Ins Z114460 Z114461; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 350 PO5900045235 eTS 5714601 CMP POLE C/O Z312509 OH Z312510 Z312508; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 40 PO5900045235 Nesting Bird Surveys; San Diego Gas & Electric; California.** *Role: Biological Technician.*

**Item 60 PO5900045235 eTS 52787.01 PSR Request 5278701 BIA DIAR Tier 2 ESH ENG C0445 Campo Non-Critical; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 60 PO5900045235 eTS 5682201 ESH DIAR Tier 2 Eng BIA Los Coyotes; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 60 PO5900045235 eTS 5848401 ESH DIAR T2 3 Poles Black Mountain; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 60 PO5900045235 eTS 5880201 DIAR T2 ENG Private Batch 2; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 60 PO5900045235 Natural Resources Consultant Support; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 70 PO5900045235 eTS 5200601 TIER 2 ESH C0211 AR DIAR NONENG N ,P2047; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 70 PO5900045235 eTS 5574701 175 F DIAR T2 53x274586; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 70 PO5900045235 eTS 5647801 ESH C0200 E DIAR T2 NONENG N; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**JCSD CIP New Water and Wastewater Facilities Projects; Albert A. Webb Associates; Riverside County, California.** *Role: Biological Technician.*

**KMI SWML Integrity Dig Env Svcs; Kinder Morgan Product Pipelines; Harris County, Texas.** SWCA is assisting with environmental permit clearances for roughly 1,800 pipeline anomalies across Kinder Morgan's U.S. liquids assets. SWCA is providing natural and cultural resources, CEQA, wetlands, and permitting services. Several projects are located along the San Francisco Bay shoreline and require Clean Water Act, CDFW Section 1602, and San Francisco Bay Conservation and Development Commission (BCDC) permitting. *Role: Biological Technician.*

**KMI SWML Integrity Dig Env Svcs 6; Kinder Morgan Product Pipelines; Harris County, Texas.** SWCA is assisting with environmental permit clearances for roughly 1,800 pipeline anomalies across Kinder Morgan's U.S. liquids assets. SWCA is providing natural and cultural resources, CEQA, wetlands, and permitting services. *Role: Biological Technician.*

**KMI SWML Integrity Dig Env Svcs SFPP (LS-14, Oregon); Kinder Morgan Product Pipelines; Statewide, Oregon.** *Role: Biological Technician.*

**KMI SWML Integrity Dig Env Svcs SFPP (LS-114, Arizona); Kinder Morgan Product Pipelines; Statewide, Arizona.** *Role: Biological Technician.*

**KMI West Colton DSFLF Support- ILI Digs on LS-8 Richmond – Concord; Kinder Morgan, Inc.; San Bernardino County, California.** *Role: Biological Technician.*

**MEBO Lakeshore Town Center EIR Support; LK Properties Groups; Riverside County, California.** *Role: Biological Technician.*

**MEP SCE120 Mission Canyon Stream Habitat Restoration Project; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**MEP SCE120-001 Mission Canyon Rare Plants Survey; Southern California Edison Company; Los Angeles County, California.** *Role: Biological Technician.*

**Item 470 PO5900045235 Nest Survey for Poles P814707 and P114716; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Newberry Springs Pipeline Evaluation Permitting; Confidential Client; San Diego County, California.** CONFIDENTIAL *Role: Biological Technician.*

**NRCS D.C. 2021 Task Order; American Conservation Experience (ACE); Latah County, Idaho.** *Role: Biological Technician.*

**Otay River Mitigation Bank; HomeFed Otay Land II, LLC; San Diego County, California.** *Role: Biological Technician.*

**Item 210 PO5900045235 eTS 55487.01 TL621 Pole CO Z284298,Z284299; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 10 PO5900045235 Natural Resources Consultant Support; San Diego Gas & Electric; California.** *Role: Biological Technician.*

**SCV Water Phase 2C Recycled Water Line NR&CR-NEPA; Woodard & Curran, Inc; Los Angeles County, California.** *Role: Biological Technician.*

**Item 60 PO5900045235 SDG&E ESH DIAR T2 ENG PSR Species Desktop Review-142 Poles; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Item 690 PO5900045235 SDGE ESH C520 Prelim Design - Sec A-H; San Diego Gas & Electric; San Diego County, California.** *Role: Biological Technician.*

**Seville Solar Project; Apex Energy Solutions, LLC; Imperial County, California.** *Role: Biological Technician.*

**Soda Mountain Solar EIR & Technical Study Updates; Soda Mountain Solar, LLC; San Bernardino County, California.** *Role: Biological Technician.*

**Starlight Solar AES Support; Confidential Client; San Diego County, California.** CONFIDENTIAL *Role: Biological Technician.*

**Starlight Solar Project; Empire II, LLC; San Diego County, California.** SWCA is preparing an EIR assessing the environmental impacts of the construction and operation of a photovoltaic solar facility and battery energy storage project in unincorporated San Diego County. The project is an important component of meeting the County's local renewable energy procurement targets. The EIR will be supported by several technical studies prepared by SWCA, including biological resources, jurisdictional waters, cultural resources, wildfire, noise, air quality, and visual resources (including glare and visual simulations). The project also includes the creation of an offsite biological resources open space easement. SWCA assisted in the design of the project by identifying constraints and working with the design team to limit environmental impacts. *Role: Biological Technician.*

**Suncrest Overhead to Underground Conversion Project; Confidential Client; Alpine, San Mateo County, California.** *Role: Biological Technician.*

**Suncrest SVC Pad Mustard Weed Removal; Confidential Client; Alpine, San Diego County, California.** CONFIDENTIAL *Role: Biological Technician.*

**SWML West, 2022 Ellis SFPP SWML Digs (CA-001 thru CA-049); Kinder Morgan Product Pipelines; Harris County, Texas.** *Role: Biological Technician.*

**SWML West, 2022 Ellis SFPP SWML Digs CO 5; Kinder Morgan Product Pipelines; Harris County, Texas.**

**Titan II and III Solar Projects; ZGlobal; Imperial County, California.** SWCA is assisting with the preparation of technical studies for two solar projects located on private land in unincorporated Imperial County. *Role: Biological Technician.*

**TO1 - On-Call Biological and Archaeological Environmental Services; Confidential Client; Los Angeles County, California.** CONFIDENTIAL *Role: Biological Technician.*

**Trout Canyon to NorthWest Transmission Upgrade Project; Confidential Client; Nye County, Nevada.** CONFIDENTIAL *Role: Biological Technician.*

**Valve Automation Project at MLV 311, Kern Co., CA - Preconstruction DT Survey; Confidential Client; Kern County, California.** CONFIDENTIAL *Role: Biological Technician.*

**Victorville Pipeline Project; Meridian Consultants, LLC; Victorville, San Bernardino County, California.** SWCA conducted a delineation, habitat assessment, and Mitigation Monitoring and Reporting Program (MMRP) for the City of Victorville Water Pipeline Project, and obtained water resources permits and permissions. SWCA is coordinating the species surveys and construction monitoring and reporting. *Role: Biological Technician.*

**West Soda Natural Resource Surveys; Confidential Client; Sweetwater County, Wyoming.** SWCA is conducting wildlife surveys, vegetation surveys, an aquatic resources inventory, soil sampling, and a special-status species habitat suitability assessment for a confidential client in southwestern Wyoming. *Role: Biological Technician.*





## PARIS KRAUSE, M.S., STAFF BIOLOGIST

Ms. Krause is a biologist and environmental scientist at the SWCA Sacramento office, providing technical services in California. She has over 4 years of experience in forest and fire ecology studies, scientific research, technical writing, geospatial analysis (GIS), threatened and endangered wildlife surveys, and botanical surveys. In regard to fire planning, she has experience working with public and private stakeholders, managing field crew for forest health and fire ecology surveys across California. For her graduate studies, she conducted LiDAR and other remote sensing studies on a variety of forest types to evaluate aboveground biomass and forest structure pre and post wildfire. She also routinely works with a variety of land management agencies in California, including the USFS and CalFire, studying fuels reduction treatments, forest stand structure, fire behavior, and monitoring of burned areas with the use of both remote sensing and traditional survey techniques. Within California, Ms. Krause has conducted forest health surveys for the Cleveland, San Bernardino, Angeles, and Los Padres National Forests, as well as in Sonoma, Mendocino, and Shasta counties in both forested and chaparral ecosystems.

### YEARS OF EXPERIENCE

5

### EXPERTISE

Avian nest surveys

Herpetology

Giant garter snake

Geographic Information Systems (GIS)

LiDAR data processing and analysis

Bats

Fire and forestry

Post-fire monitoring and restoration

Remote sensing surveys

Community Wildfire Protection Plan (CWPP)

Biology

Western burrowing owl

Botany (plant biology)

Swainson's hawk

National Environmental Policy Act (NEPA) compliance

Western pond turtle

Foothill yellow-legged frog

California Environmental Quality Act (CEQA) compliance

California red-legged frog

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

**3000 Alexandrite Drive; Ciconia Village, LLC; El Dorado County, California.** SWCA is conducting a Biological Resources Evaluation for the development of a residential community of 45 (1 acre each) lots on a 140-acre property in the community of Rescue. The remainder of the land will be natural reserve and agricultural. *Role: Staff Biologist. Assisted with fieldwork for Aquatic Resource Delineation survey.*

**Arco AM/PM Follow-up Surveys; SJCOG, Inc.; Stockton, San Joaquin County, California.** *Role: Staff Biologist.*

**Briceland Road Over Mattole River Bridge 2012037; Willdan Engineering; Mendocino County, California.** SWCA is providing environmental services for the replacement of the existing one-lane bridge with a modern concrete/steel two-lane bridge on Briceland Road over Mattole River in Mendocino County. The roadway approaches will also be replaced and reconstructed to conform the new wider bridge to the existing roadway and improve geometry. *Role: Staff Biologist. Assisted with preparation of Natural Environmental Study and Biological Assessment.*

**Business Drive APN 109-480-07; Leave It To Us Storage, LLC; El Dorado County, California.** *Role: Staff Biologist.*

**Caldor Fire EIS - ENF - Task Order No. 1; The Great Basin Institute; El Dorado County, California.** *Role: Staff Biologist.*

**Caltrans 05-1Q650 Emergency Environmental Services (Souza); Souza Construction; San Luis Obispo County, California.** *Role: Staff Biologist.*

**Caltrans 05-1Q760 Emergency Environmental Services (Chaves); S. Chaves Construction Inc.; San Luis Obispo County, California.** *Role: Staff Biologist.*

**City of Corona Communication Site Fuel Planning; City of Corona; Riverside County, California.** *Role: Staff Biologist.*

**City of Temecula Community Wildfire Protection Plan; City of Temecula; Riverside County, California.** *Role: Staff Biologist.*

**Crabtree Road Over Dry Creek Bridge (38C-0009) 2014104; WSP USA INC.; Stanislaus County, California.** SWCA provided environmental services, including CEQA/NEPA compliance, Section 7 consultation, Section 106 consultation, and

**EDUCATION**

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

**REGISTRATIONS / CERTIFICATIONS**

Adult First Aid/CPR/AED Certified, California; 2022

**TRAINING**

Yolo HCP/NCCP qualified biologist for: Planning-level habitat surveys, WPT, GGS, SWHA, WHKI, BUOW, Yolo Habitat Conservancy; 2022

permitting, for a bridge replacement project near Warnerville. The SWCA team conducted biological surveys, botanical surveys, and a wetland delineation; prepared an aquatic resources delineation report, an NES, and a BA; and is managing the preconstruction and construction-phase environmental services as the project heads to construction. *Role: Staff Biologist.*

**Desert Senna Solar CIA; Savion Energy; San Bernardino County, California.** *Role: Staff Biologist.*

**Dos Palos Solar Energy Project Initial Study; County of Merced; Merced County, California.** *Role: Staff Biologist.*

**Dutch Charlie Creek Brdg Replacement 2015042; MGE Engineering, Inc.; Mendocino County, California.** SWCA is providing environmental services in support of the replacement of an existing single-span structure comprised of two railroad flatcars with a timber deck on Wilderness Lodge Road (also known as Jack of Hearts Road)

bridge over Dutch Charlie Creek. *Role: Staff Biologist. Assisted with preparation of Natural Environment Study.*

**Freestone Solar CIAs - Seasons 5; Freestone Renewables, LLC; San Bernardino County, California.** *Role: Staff Biologist.*

**GLW Core Upgrades; Confidential Client; Clark County, Nevada.** CONFIDENTIAL *Role: Staff Biologist.*

**Highway 160 Levee Seepage Repair Project; Wagner & Bonsignore; Sacramento County, California.** SWCA is conducting environmental management, preconstruction surveys, and environmental training to ensure Mitigation Monitoring and Reporting Plan compliance for a levee repair project on Sherman Island in southwest Sacramento County. *Role: Staff Biologist. Conducted weekly preconstruction surveys for giant garter snake, migratory nesting birds, nesting Swainson's hawk, and nesting raptors.*

**Hot Pot Access Road EA; Primergy Solar Management, LLC; Humboldt County, Nevada.** *Role: Staff Biologist.*

**Inyo County Community Wildfire Protection Plan Update; County of Inyo, California; Inyo County, California.** *Role: Staff Biologist.*

**Iron Point Access Road EA; Primergy Solar Management, LLC; Humboldt County, Nevada.** *Role: Staff Biologist.*

**Kinect at Southport; Jefferson Village Apartments Associates LLC; Yolo County, California.** *Role: Staff Biologist.*

**KMI SWML Integrity Dig Env Svcs 6; Kinder Morgan Product Pipelines; Harris County, Texas.** SWCA is assisting with environmental permit clearances for roughly 1,800 pipeline anomalies across Kinder Morgan's U.S. liquids assets. SWCA is providing natural and cultural resources, CEQA, wetlands, and permitting services. *Role: Staff Biologist.*

**LS Power Wildfire Mitigation Plan for California; LS Power Grid California, LLC; Shasta County, California.** *Role: Staff Biologist.*

**Maintenance Projects Environmental Constraints Review; PacifiCorp; Modoc County, Multiple States.** SWCA is conducting desktop biological and cultural constraint reviews and cultural and biological surveys in support of Operations and Maintenance activities (primarily pole or structure replacements) on federally and state-managed lands in California, Oregon, and Washington. *Role: Staff Biologist. Conducted rare plant surveys and wetland delineations on transmission poles in Modoc County*

**McKinney Wildfire Response Environmental Services; PacifiCorp; Siskiyou County, California.** *Role: Staff Biologist.*

**Natomas Levee Reach D; Syblon Reid Construction, Inc.; Sutter County, California.** SWCA is monitoring earth-moving activities, inspecting stored material, and preparing reports for submittal to the USACE and USFWS for the protection of giant gartersnake along the approximately 5-mile levee in Sutter County. *Role: Staff Biologist. Conducted preconstruction surveys and construction monitoring for giant gartersnake and migratory birds.*

**Newtown Rd Brdg @ South Fork Weber Crk 2010066; El Dorado County; El Dorado County, California.** SWCA is providing biological resources and permitting services for the replacement of a functionally obsolete bridge, constructed in 1929, on Newtown Road over South Fork Weber Creek, located approximately 2 miles south of the community of Camino in the western Sierra Nevada. *Role: Staff Biologist. Completed Sections 1600, 404, and 401 permit applications.*

## MINERVA LARA, NATURAL RESOURCES TECHNICIAN

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

684 S. New Hampshire Avenue Project; 3240 Wilshire Boulevard Midrise, LLC; Los Angeles County, California.

All Zones - ESDVM-01.1 Desktop Review (WP); Southern California Edison Company; Los Angeles County, California.

Arroyo Conejo Creek Maintenance Agreement; City of Thousand Oaks; Ventura County, California.

Chilocco - Tricolored Bat USFWS Regulatory Support; Confidential Client; Kay County, Oklahoma. CONFIDENTIAL

Daytona NGL Pipeline Environmental Survey and Permitting; Confidential Client; Midland County, Texas. CONFIDENTIAL

ERM Ad-Hoc TROW Support; Southern California Edison Company; Los Angeles County, California.

ERM SCE113.100 DET Pole Intake; Southern California Edison Company; Los Angeles County, California.

ERM SCE113.101 DET Pole Desktop Review; Southern California Edison Company; Los Angeles County, California.

ERM SCE113.102 Det Pole Construction Support; Southern California Edison Company; Los Angeles County, California.

ERM SCE114-100 GRM Intake; Southern California Edison Company; Los Angeles County, California.

ERM SCE114-101 GRM Super IO's; Southern California Edison Company; Los Angeles County, California.

ERM SCE114-200 Covered Conductor Projects (CCP) Distribution; Southern California Edison Company; Los Angeles County, California.

#### YEARS OF EXPERIENCE

2

#### EXPERTISE

Biological Field Surveys

#### EDUCATION

B.S., Organismal Biology, m:  
Environmental Science & Policy;  
California State University Long Beach;  
2021

ERM SCE114.102 Requested IO's; Southern California Edison Company; Los Angeles County, California.

ERM SCE115.101 Det Pole Desktop Review; Southern California Edison Company; Los Angeles County, California.

ERM SCE115.102 Det Pole Construction Support Transmission; Southern California Edison Company; Los Angeles County, California.

ERM SCE116 GRM (GO131D) (Eastern, Metro East, Orange) Transmission; Southern California Edison Company; Los Angeles County, California.

ERM SCE116.100 GRM (GO131D) (Eastern, Metro East, Orange) Transmission; Southern California Edison Company; Los Angeles County, California.

ERM SCE116.101 GRM (GO131D) (Eastern, Metro East, Orange) Transmission; Southern California Edison Company; Los Angeles County, California.

ERM SCE116 GRM (GO131D) (Eastern, Metro East, Orange) Transmission; Southern California Edison Company; Los Angeles County, California.

ERM SCE118 TROW; Southern California Edison Company; Los Angeles County, California.

ERM SCE126.01 Continued Short Term Emergency Response; Southern California Edison Company; Los Angeles County, California.

ERM SCE139 Highland Grid Transmission and Edwards AFB Support; Southern California Edison Company; Los Angeles County, California.

ERM SCE144 TROW-Pre-Clearance Non-Workplan Tasks; Southern California Edison Company; Los Angeles County, California.

**ERM SCE145-100 Dist GRM, Desert - Intake/Desktop Review/Construction Support; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE145-101 Dist GRM, Rurals South - Intake/Desktop Review/Construction Support; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE145-102 Dist GRM, Other - Intake/Desktop Review/Construction Support; Southern California Edison Company; Los Angeles County, California.** *Role: Natural Resources Specialist.*

**ERM SCE145-200 Dist GRM, Desert - CCP; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE145-201 Dist GRM, Rurals South - CCP; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE145-202 Dist GRM, Other - CCP; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE146-100 Dist Det Pole, Desert - Intake/Desktop Review; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE146-101 Dist Det Pole, Rurals South - Intake/Desktop Review; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE146-102 Dist Det Pole, Other - Intake/Desktop Review; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE151-101 Det Pole Desktop Review; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE151-102 Det Pole Construction Support; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE152-100 TR GRM Intake; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE152-101 TR GRM Super IOs; Southern California Edison Company; Los Angeles County, California.**

**ERM SCE152-102 TR G0131D Requested IOs; Southern California Edison Company; Los Angeles County, California.**

**Focused Lily Surveys and Aquatic Resource Delineation Update; SC Land Co Parent LLC; Santa Clarita, Los Angeles County, California.**

**GLO WO #153 Harvey HAP Construction Compliance Migratory Bird Nest Surveys; Texas General Land Office; Harris County, Texas.**

**Matterhorn Pipeline; Confidential Client; Waller County, Texas. CONFIDENTIAL**

**San Francisquito AOP Restoration Phase 2, Powerhouse 2 Site; Resource Institute, Inc.; Los Angeles County, California.** SWCA in partnership with The Resource Institute (RI) is working with the United States Forest Service (USFS) on a National Fish and Wildlife Foundation (NFWF) grant to conduct river restoration at two distinct sites along San Francisquito Creek in the Angeles National Forest (ANF). The work is part of a programmatic, watershed approach to restoring aquatic organism passage (AOP), for the California red-legged frog and unarmored threespine stickleback, both federal and state listed species. Design and implementation of Natural Channel Design (NCD) methodologies is underway at four high priority passage barriers along the creek; three AOP barriers are undersized culverts clogged with sediment and debris after fire activity, and the fourth is located at the site of the failed St. Francis Dam, where dam foundation remnants have blocked natural stream flows. Phase 1 of the Program involves baseline conditions analyses, natural channel design/engineering, road crossing design/engineering, developing all required permitting documents (including NEPA and CEQA), stakeholder and community outreach, and biological and cultural resource

**Soda Mountain Solar EIR & Technical Study Updates; Soda Mountain Solar, LLC; San Bernardino County, California.**



## BRIDGET MANJARREZ, BIOLOGIST

Bridget Manjarrez is an experienced field biologist with over 4 years of experience in performing ecological surveys, identifying species of flora and fauna, collecting biological samples, and monitoring sensitive species. Bridget also has experience regularly handling and conducting health assessments and relocations of Mojave Desert Tortoise (*Gopherus agassizii*) under Authorized USFW biologist guidance. She has worked with federal and state agencies within California including Department of Defense (DOD) and California Department of Parks and Recreation (CDPR) to accomplish research project goals. Additionally, Bridget has performed pre-construction surveys and environmental monitoring for Southern California Edison projects throughout Southern California. She has experience coordinating projects between multiple agencies and partnerships both on-site and remotely and has demonstrated her ability to learn new subjects quickly and to work with minimal supervision.

### YEARS OF EXPERIENCE

4

### EXPERTISE

Technical writing: biological technical reports, proposals, contracts, budgeting, desktop assessments

Biological surveys: protocol burrowing owl and desert tortoise surveys, nesting bird surveys

Construction monitoring: burrowing owl, desert kit fox, desert tortoise, and nesting birds

### EDUCATION

B.S., Environmental Biology and Conservation Management; California Polytechnic University;

### REGISTRATIONS / CERTIFICATIONS

HAZWOPER Certified; 2024

### TRAINING

Wetland Training Institute Inc. Wetland Delineation; 2022

### SELECTED PROJECT EXPERIENCE

**TO3 - Mead Victorville Transmission Line Right of Way Road Grading Project Clearance Surveys; Confidential Client; San Bernardino County, California.** SWCA was retained by the Los Angeles Department of Water and Power (LADWP) to conduct a clearance survey at the Mead to Victorville Transmission Line Right-of-Way Road Grading Project (project). As part of this project, SWCA provided natural and cultural resources background research, surveys, and cultural resources recording. The natural resources support included wildlife and botanical surveys. *Role: Lead Biologist.*

**DVNP CR Monitoring; Steve Manning Construction, Inc.; Furnace Creek, San Bernardino County, California.** SWCA provided natural resources support for the DVNP CR Monitoring project located in San Bernardino County, California. The project included road repairs of a 7-mile segment of road in Death Valley National Park. SWCA conducted biological monitoring for desert tortoise for the project. *Role: Approved desert tortoise monitor.*

**Soda Mountain Solar EIR & Technical Study Updates; Soda Mountain Solar, LLC; San Bernardino County, California.** SWCA is managing regulatory permitting for the Soda Mountain Solar Project. Services provided include agency outreach and coordination to establish a new California Environmental Quality Act (CEQA) lead agency. Agencies that have been consulted include the CDFW, Lahontan Regional Water Quality Control Board, and San Bernardino County. SWCA prepared an Incidental Take Permit, and is currently preparing the Environmental Impact Report, performing fieldwork, and preparing technical studies for the project in coordination with CDFW, the current lead agency. *Role: Lead Desert Tortoise Biologist.*

**Rand Historic Mining Complex, Confidential Client; San Bernardino County, California.** SWCA provided environmental support for remediation work in Randsburg, California. Biological field surveys were performed to characterize existing habitat and identify special-status species presence. Field surveys performed included vegetation mapping, general and species-focused surveys, and camera trapping for Mohave ground squirrel. *Role: Biologist.*

**UMEP 2023: Field Surveys & Analysis/Report; Upper Columbia United Tribes (UCUT); Spokane, Okanogan County, Washington**  
SWCA is working with the Upper-Columbia United Tribes to restore tribal lands. SWCA conducts vegetation surveys and data collection on several tribal government's properties to aid in restoration and wildlife monitoring. *Role: Biologist.*

**TROW JD Pilot Project; Confidential Client; Inyokern, CA\*** Forde Biological Consulting was retained by SWCA to facilitate construction monitoring efforts for 100 miles of utility line road grading. The project was in Inyokern, CA to Bishop, CA and required pre-activity surveys and biological monitoring. The species-specific surveys included Mojave desert tortoise, snow plover, Western Joshua tree, and Mohave ground squirrel. *Role: Biologist.*

## OMAR MOQUIT, GENERAL WILDLIFE SURVEY

Omar Moquit is a biologist and associate project manager for the Natural Resources group in SWCA's San Diego office. He is responsible for leading and conducting field surveys, authoring technical reports, and providing biological services for industries such as renewable energy, private and public development, transportation, and energy/utilities. His professional experience includes conducting focused surveys for special-status species, conducting preliminary desktop reviews for aquatic and natural resources, aquatic resource delineations, habitat impact assessments, preparation of various biological documents, and project management.

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

#### YEARS OF EXPERIENCE

5

#### EXPERTISE

Ornithology  
Wetland delineation  
Habitat assessments  
Vegetation mapping  
Biological surveys  
Natural resource surveys  
Wildlife surveys and monitoring  
Avian ecology, surveys, and monitoring

#### EDUCATION

M.S., Ecology and Evolutionary Biology;  
University of California Irvine; 2020  
B.S., Natural Resources and  
Environmental Science; University of  
Illinois Urbana-Champaign; 2016

#### TRAINING

Pacific Gas & Electric Company Gold  
Shovel Standard Training; 2020  
Basic Wetland Delineation, Wetland  
Training Institute, Inc.; 2022  
Advanced Lead Awareness for  
Construction Training; 2020  
Natural Resources Permit Management  
Consultant Training, SDGE; 2022

#### MEMBERSHIPS

Member, The Wildlife Society (Central  
Coast and Southern California  
Chapters)

**749 Mays Hollow Lane Natural Resources Assessment; MFG Mays Hollow, LLC; San Diego County, California.** This property development project involves the construction of three new single-family homes and the renovation of an existing home at the site. SWCA performed a biological resources assessment. The fieldwork included surveying the entire project area, inventorying plant and wildlife species, delineating vegetation communities and habitat types, and documenting other environmental characteristics, paying particular attention to delineating areas of suitable habitat for any special-status plant or wildlife species identified during the initial study phase. The biological resources assessment report for the project provided baseline information for analyzing potential impacts and recommending avoidance, minimization, and mitigation measures for sensitive resources. *Role: Project Biologist. Conducted preliminary studies and field site assessment to map the vegetation communities present on site; authored the biological resources assessment report.*

**Soda Mountain Solar; ZGlobal; San Bernardino County, California.** The project consists of the construction and operation of a 358-megawatt solar energy plant and related facilities at a 2,634-acre project site. Biological resource surveys, including for western burrowing owl (*Athene cunicularia* ssp. *hypugaea*), were conducted in support of the project. Burrowing owl protocol survey methods were consistent with the guidelines for take avoidance provided in the 2012 California Department of Fish and Game *Staff Report on Burrowing Owl Mitigation*. *Role: Survey Lead. Led focused western burrowing owl protocol field surveys; authored the relevant portion of the biological resources technical report.*

**\*Daley Ranch Hydrotest Project; San Diego Gas & Electric Company (SDGE); San Diego County, California.** Natural and aquatic resources mapping and surveys were conducted in support of permitting and hydrostatic testing of approximately 3.3 miles of existing 16-inch gas pipeline as part of the SDGE Line 1600 Pipeline Safety Enhancement Plan Project in San Diego County. The surveys determined the special-status plant and wildlife species with the potential to occur in suitable habitats within the project area. *Role: Project Biologist. Mapped vegetation communities and wetlands present within the project assessment areas.*

**\*Line 1600 Pipeline Safety Enhancement Plan Project; SDGE; San Diego County, California.** Biological resources surveys, jurisdictional aquatic resource delineations, and habitat assessments, and vegetation community mapping were conducted in support of the development of a test and replacement plan for an existing, approximately 50-mile-long natural gas pipeline in San Diego County. Special-status species included coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii*),

southwestern willow flycatcher (*Empidonax traillii extimus*), and arroyo toad (*Anaxyrus californicus*). Additionally, mitigation measures to protect natural resources potentially impacted by construction activities were recommended. *Role: Lead Biologist. Conducted desktop reviews; led surveys for special-status plants and wildlife, nesting birds; authored biological resource survey reports and biological resources sections of detailed environmental review documents; prepared mitigation recommendation reports.*

**\*Strategic Undergrounding Program; SDGE; San Diego County, California.** Biological and aquatic resource consulting services were provided on an SDGE project to assess potential impacts to special-status plant and wildlife species, natural vegetation communities, and aquatic resources by the underground installation of distribution lines to key community facilities, which served to increase wildfire resiliency and electric reliability in San Diego County. *Role: Lead Biologist. Conducted desktop and field reviews for special-status species at multiple circuit segments, mapped sensitive vegetation communities and biological and aquatic resources, developed biological constraints maps, and reviewed and prepared technical memorandums.*

**\*Del Mar Reconfiguration Project; SDGE; City of San Diego and City of Del Mar, California.** SDGE removed Transmission Line 666D from service and reconfigured it to eliminate ongoing operation and maintenance work in environmentally sensitive areas within the coastal zone near the San Dieguito Lagoon, Los Peñasquitos Lagoon, and Torrey Pines State Natural Reserve. Wildlife species of concern included Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), California least tern (*Sternula antillarum browni*), coastal California gnatcatcher, light-footed Ridgway's rail (*Rallus longirostris levipes*), least Bell's vireo, and western snowy plover (*Anarhynchus nivosus nivosus*). *Role: Project Biologist/Avian Lead. Conducted pre-activity surveys, including habitat assessment, vegetation mapping, focused surveys for special-status species; led efforts for raptors and nesting bird surveys and focused surveys in adherence to the project's nesting bird management plan; authored the final preconstruction survey report.*

**\*Biological Support Services; Southern California Edison (SCE); Multiple Counties, California.** Biological services were provided for multiple projects within the SCE service territory. Special-status plant and wildlife species of concern included coastal California gnatcatcher, southwestern willow flycatcher, least Bell's vireo, western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), tricolored blackbird (*Agelaius tricolor*), LeConte's thrasher (*Toxostoma lecontei*), golden eagle (*Aquila chrysaetos*), western burrowing owl, and desert tortoise (*Gopherus agassizii*). Services included recommendation and implementation of species-specific impact avoidance and minimization measures, environmental training, nest monitoring, and restricted work buffers. *Role: Project Biologist. Developed project costs and scopes; responsible for client communication and coordination for staffing fieldwork; conducted desktop analyses and focused surveys; prepared and submitted final resource reports.*

**\*Transmission Line Replacement Project; San Diego Gas & Electric Company; Cleveland National Forest (CNF), San Diego County, California.** An electric infrastructure replacement project included wood-to-steel conversion, line relocation, undergrounding, and reconductoring of electrical distribution lines that served the U.S. Forest Service, emergency service facilities, campgrounds, homes, businesses, and other customers within the CNF and surrounding areas. Biological services in support of the project included habitat assessments and vegetation mapping; focused surveys for special-status species: arroyo toad, western spadefoot (*Spea hammondi*), western burrowing owl, coastal California gnatcatcher, least Bell's vireo, bald eagle (*Haliaeetus leucocephalus*), golden eagle, and California spotted owl (*Strix occidentalis occidentalis*). *Role: Project Biologist. Performed habitat assessments and vegetation mapping; conducted focused surveys for special-status species and general nesting bird surveys; prepared preconstruction/post-construction technical reports in accordance with the Master Special Use Permit and Permit to Construct for the project.*

**\*On-Call Environmental Compliance; SDGE; San Diego County, California.** Environmental support provided for SDGE on various projects in San Diego County included habitat assessment, vegetation mapping, jurisdictional delineation, and focused surveys for special-status species such as coastal California gnatcatcher, bald and golden eagle, least Bell's vireo, arroyo toad, western burrowing owl, western spadefoot, Stephen's kangaroo rat (*Dipodomys stephensi*), tricolored blackbird, Migratory Bird Treaty Act–protected species, and rare plants. *Role: Project Manager. Managed and led focused survey efforts for special-status and nesting birds prior to construction activities; analyzed and prepared preconstruction and post-construction habitat impact reports to meet project mitigation requirements.*

## RYAN MYERS, B.S., LEAD BIOLOGIST/BOTANIST

Mr. Myers is a lead biologist/botanist with 10 years of professional experience working throughout California supporting utility, development, habitat restoration, and renewable energy projects. Mr. Myers has extensive experience across California utilizing the Manual of California Vegetation (MCV) to map a wide array of vegetation communities and habitats. Mr. Myers is familiar with California Native Plant Society (CNPS) and California Department of Fish and Wildlife (CDFW) guidelines and protocols in conducting floristic surveys. Mr. Myers is intimately familiar with the 2nd Edition of the Jepson Manual and key plant family character traits. Additionally, Mr. Myers has extensive experience leading rare plant surveys, aquatic resource delineations and habitat assessments targeting special-status species. Mr. Myers has authored key sections for multiple biological technical reports, habitat restoration and revegetation plans, mitigation plans, weed management plans and permit applications.

### YEARS OF EXPERIENCE

10

### EXPERTISE

Rare plant identification and surveys

Habitat restoration

Vegetation Mapping

Sensitive and general biological resource surveys

### EDUCATION

B.S., Biological Sciences; California Polytechnic State University, San Luis Obispo; 2013

### PERMITS

Rare Plant Collections Permit No. 2081(a)-21-022-V, California Department of Fish and Wildlife, 2021

### TRAINING

Wetland Delineation Training, Richard Chinn Environmental Training, Inc; 2019

California Fairy Shrimp Identification, Belk Fairy Shrimp ID; 2019

### MEMBERSHIPS

Association of State Wetland Managers; 2019-present

California Native Plant Society

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

**Starlight Solar Environmental Impact Report and Surveys, Empire II, LLC., San Diego, County, California.** SWCA is preparing an EIR assessing the environmental impacts of the construction and operation of a 700 acre solar energy storage project in unincorporated San Diego County. The project is an important component of meeting the County's local renewable energy procurement targets. The EIR will be supported by several technical studies prepared by SWCA, including biology, jurisdictional waters, cultural resources, wildfire, noise, air quality, and visual resources (including glare and visual simulations). SWCA assisted in the design of the project by identifying constraints and working with the design team to limit environmental impacts. *Role: Biologist/Botanist. Mr. Myers led the jurisdictional delineation efforts and conducted rare plant surveys.*

**Soda Mountain Solar Project Permitting Support, ZGlobal, San Bernardino County, California.** SWCA is managing regulatory permitting for the 2.670-acre Soda Mountain Solar Project after the project was delayed in 2016. Services provided include agency outreach and coordination to establish a new California Environmental Quality Act (CEQA) lead agency. Agencies that have been consulted include the California Department of Fish and Wildlife (CDFW), Lahontan Regional Water Quality Control Board (RWQCB), and San Bernardino County to establish a workable permitting pathway for the project. SWCA prepared an Incidental Take Permit, and is currently updating the Environmental Impact Report, performing field work, and preparing technical studies for the project in coordination with CDFW, the current lead agency. Examples of technical studies and field work efforts included rare plant surveys, vegetation mapping and the jurisdictional delineation survey. *Role: Biologist/Botanist. Mr. Myers led the rare plant surveys and vegetation mapping efforts and supported the jurisdictional delineation efforts.*

**North Star 4 & 5 Solar Project; Apex Energy Solutions, Riverside County, California.** SWCA will conduct a literature and database search followed by field survey for biological resources, cultural resources, and aquatic resources to determine environmental conditions that may pose constraints to development of the project site. Constraints will be used for avoidance and to determine the buildable area of the site. *Role Biologist/Botanist. Mr. Myers led the vegetation mapping efforts and the general biological resource surveys.*

**Suncrest Dynamic Reactive Power Support Project; Confidential Client; San Diego County, California.** Confidential Transmission Project, California: Confidential Client – SWCA is 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. *Role: Botanist. Mr. Myers led the rare plant survey efforts over several seasons.*



## AMY PARLETTE, B.S., BIOLOGIST

Amy Parlette is a biologist in SWCA's Las Vegas office with more than 4 years of experience conducting field research and data collection. Ms. Parlette has performed protocol-level surveys for Mojave desert tortoise for projects throughout the Mojave Desert and is an approved U.S. Fish and Wildlife Service (USFWS) desert tortoise monitor. Additionally, her role involves desert tortoise monitoring and environmental compliance inspection efforts that include oversight of mitigation measures, review and implementation of permit stipulations, documenting compliance activities, and working with permitting agencies to ensure compliance.

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

#### YEARS OF EXPERIENCE

4

#### EXPERTISE

Re-vegetation treatments  
Environmental assessments  
Biological survey reports  
Data entry  
Impact assessments  
Endangered Species Act

#### EDUCATION

B.S., Outdoor Recreation and Leadership Management; Northern Michigan University, Marquette, Michigan; 2008

#### PERMITS

Arizona Game and Fish Department Scientific Collecting Permit (SP402191); La Paz, Mohave, Yuma counties

#### MEMBERSHIPS

Member, Desert Tortoise Council

#### Former Mojave Gunnery Range "C" MSR-04 CR & NR Services; Bristol

**Environmental Remediation Services, LLC; Kern County, California.** SWCA was contracted by Bristol Environmental Remediation Services, Inc. (Bristol) to provide natural and cultural resources services for an unexploded ordnance (UXO) removal actions (RA) for three projects in the Former Mojave Gunnery Range "C" area: munitions response sites (MRSs) 04, 06 and 07. These MRSs are being subjected to a Military Munitions Response Program (MMRP) under the U.S. Army Corps of Engineers' (USACE's) Formerly Used Defense Sites (FUDS). As part of this project, SWCA provided natural and cultural background research for the project, surveys, cultural resources recording. The natural resources surveys included a wetland delineation, rare plant survey, vegetation community mapping, desert tortoise protocol survey, and a survey for nests of birds protected under the Migratory Bird Treaty Act. SWCA's workplans were approved by USACE with minimal comment, field surveys for cultural and natural resources, and SWCA is slated to provide survey reports (two for each MRS) and monitoring for all three MRSs in summer 2020. This project is on-going. *Role: Desert Tortoise Monitor.*

**Confidential Solar Project; Clark County, Nevada; Client Confidential.** SWCA completed surveys for Mojave desert tortoise on BLM-administered land. SWCA has also begun the process of conducting desert tortoise health assessments and tracking of desert tortoises to be translocated. *Role: Biologist. Conducted clearance Mojave desert tortoise surveys, visual health assessments, and attached transmitter.*

**VEA Beatty Airport FO Monitoring; Valley Electric Association, Inc.; Beatty, Nye County, Nevada.** SWCA was contracted by Valley Electric Association to provide environmental compliance monitoring and worker environmental awareness program training for during the installation of fiber optic cable outside the Sandy Valley Substation.

*Role: Biologist. Monitored and escorted work crews during fiber optic installation in Agassiz's (Mojave) desert tortoise habitat. Provided worker environmental awareness training.*

**Sloan to Mead Rebuild Environmental Permitting and Monitoring; GridLiance West Transco LLC; Boulder City, Clark County, Nevada.** SWCA prepared the POD, Determination of NEPA Adequacy documentation, provided permitting support, and led regular meetings with the client and BLM staff. Our team also conducted complete natural resources surveys, including for Mojave desert tortoise (*Gopherus agassizii*) and other identified sensitive wildlife and plant species, and cultural resources surveys. SWCA is currently providing environmental construction monitoring for the project, deploying up to 14 biologists daily to monitor construction activities. *Role: Biologist. Construction monitoring, desert tortoise monitoring, escorting duties. Compliance monitoring.*

**Valley Electric Association Desert View Substation Road Maintenance; GridLiance West LLC; Nevada.** SWCA was contracted by Valley Electric Association to provide environmental compliance monitoring and worker environmental awareness program training for



during the road maintenance for the Desert View Substation. *Role: Biologist. Monitored and escorted work crews during fiber optic installation in Agassiz's (Mojave) desert tortoise habitat. Provided worker environmental awareness training.*

**Valley Electric Association Sandy Valley Substation Environmental Compliance Monitoring, Clark County, Nevada.** SWCA was contracted by Valley Electric Association to provide environmental compliance monitoring and worker environmental awareness program training for during the installation of 200-feet of fiber optic cable outside the Sandy Valley Substation. *Role: Biologist. Monitored and escorted work crews during fiber optic installation in Agassiz's (Mojave) desert tortoise habitat. Provided worker environmental awareness training.*

**Reid Gardner Groundwater Monitoring; NV Energy; Clark County, Nevada.** SWCA provided environmental compliance monitoring services on an on-call basis for the Reid Gardner Power Plant. Services included Mojave desert tortoise monitoring and worker environmental awareness program training. *Role: Biologist. Monitored and escorted work crews during well monitoring in Agassiz's (Mojave) desert tortoise habitat near Moapa, Nevada.*

**GridLiance Sloan Switchyard and 230-kV Transmission Line, Eldorado Valley, Clark County, Nevada.** SWCA prepared the Plans of Development (POD) in support of the construction of a new 30-acre switchyard and associated access road and 230-kV transmission line within the BLM Las Vegas Field Office. SWCA prepared the Determination of NEPA Adequacy documentation for the project components and led regular meetings with the client and BLM staff. Currently, SWCA is providing environmental construction monitoring for the project, deploying up to eight biologists daily to monitor construction activities. *Role: Biologist. Provided worker environmental awareness program training. Construction monitoring, desert tortoise monitoring, escorting duties. Compliance monitoring.*

**Valley Electric Association Valley to Johnnie Fiber Optic Installation Environmental Compliance Monitoring, Armargosa Valley, Nye County, Nevada.** SWCA was contracted by Valley Electric Association to provide environmental compliance monitoring and worker environmental awareness program training during the installation of fiber optic cable on the Valley to Johnnie Transmission Line. *Role: Biologist. Provided worker environmental awareness program training. Monitored and escorted work crews during the installation of fiber optic cable in Agassiz's (Mojave) desert tortoise habitat.*

**Silicon Exploration Project Baseline Studies; Anglo Gold Ashanti North America; Nye County, Nevada.** SWCA completed Baseline Studies for the expansion of mineral exploration activities on 3,582 acres of land managed by the BLM Tonopah Field Office. The baseline surveys included collecting defensible data for biological resources, including the Mojave Desert tortoise and other identified sensitive wildlife and plant species, as well as cultural resources. SWCA is also assisting with the preparation of Monitoring and Management Strategies for the various resources for the proposed exploration. SWCA continues to support the project by providing mitigation and monitoring assistance. *Role: Biologist. Conduct protocol level presence/absence survey for the Mojave desert tortoise.*

**White Hills Wind Construction Compliance; Confidential Client; Mohave County, Arizona.** CONFIDENTIAL *Role: Biologist. Collapsed burrows and checked to make sure each burrow was occupied. Conducted Joshua Tree density surveys. Escorted vegetation crews to removed Joshua Trees for replanting.*

## PARKER RICHARDSON, M.S., FIELD BIOLOGIST

Parker Richardson is an environmental consultant experienced in performing biological surveys throughout southern California. Mr. Richardson has an extensive analytical background, including a wide array of field data collection methods for vegetation monitoring and habitat assessments, as well as data processing and analyses. Mr. Richardson's experience includes independently organizing and implementing biological surveys by managing teams of researchers. In addition, Mr. Richardson is an excellent communicator and has demonstrated technical writing skills including survey reports.

### YEARS OF EXPERIENCE

5

### EXPERTISE

Biological Monitoring

Wetland Ecology

Wetland Restoration

Science communication

Report writing

### EDUCATION

M.S., Biology; California State University Long Beach; 2022

B.S., Biology; University of California, Santa Cruz; 2014

### REGISTRATIONS / CERTIFICATIONS

California Rapid Assessment Method (CRAM) Practitioner

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

**Otay River Pre-Bank Restoration and Mitigation Bank Expansion and Trails; HomeFed; Chula Vista, California.** *Role: Natural Resources Technician.* Parker supports the ecological restoration of 200-plus acres of riparian and adjacent upland habitat by performing biological surveys, vegetation monitoring, site maintenance, and biological monitoring. He collaborates with the habitat design team by collecting and interpreting field data on species distribution and geomorphologic attributes. Vegetation surveys for this project include vegetation transects, habitat quality assessments for least Bell's vireo, and vegetation analyses as part of CRAM assessments of wetland habitat function. Additionally, Parker has supported the permitting process for the project through analyzing impacts to protected species for a U.S. Endangered Species Act Section 7 consultation, and other research efforts for collaboration with State and Federal wildlife agencies.

**\*Seal Beach National Wildlife Refuge Sediment Augmentation Pilot Project; U.S. Fish and Wildlife Service; Seal Beach, California.** *Role: Biologist.* Parker supported the research of a sediment augmentation pilot project within the Seal Beach National Wildlife Refuge, in Seal Beach, CA, aimed at minimizing salt marsh habitat loss to sea-level rise. Parker was a key researcher for the project, whose responsibilities included organizing and implementing field data collection, laboratory data processing, and data analysis for the long-term assessment of the impacts of sediment augmentation to salt marsh biota. Biological surveys for this project included salt marsh vegetation cover,

species richness and diversity, as well as analyses of benthic invertebrate communities and abiotic habitat characteristics. Parker also supported the writing of project reports which were presented to State and Federal wildlife agencies. Additionally, Parker conducted an independent research project for his M.S. thesis on the abundance and species richness of plant propagules within the seed bank of the sediment augmentation site, as well as strategies for restoring salt marsh vegetation into this site. Parker is in the process of publishing his research in a peer-reviewed journal, and has presented the results at multiple international conferences.

**\*San Onofre Nuclear Generating Station (SONGS) Mitigation Monitoring Program; Southern California Edison; Carlsbad, California.** *Role: Laboratory/Field Technician.* Parker provided field and laboratory support for a long-term study investigating the performance of a restored wetland (San Dieguito Lagoon) used to mitigate the loss of bight-wide fish standing stock caused by the operation of the San Onofre Nuclear Generation Station. Parker conducted fieldwork including surveys of vegetation, hydrology, water quality, fish communities, benthic invertebrates, and topography. Additionally, he performed laboratory analyses of benthic infauna and soil metrics, as well as data management and processing using Navicat for MySQL and Excel. Parker created maps and performed automated vegetation classifications using ArcGIS software.

**\*North Coast Corridor Program, Interstate-5 Expansion; Caltrans; San Diego, California.** *Role: Research Biologist.* Parker implemented environmental monitoring protocols specifically designed for the San Elijo Lagoon pursuant to the SCC.

## PAULINE ROBERTS, Ph.D., NATURAL RESOURCES TECHNICAL DIRECTOR

Dr. Roberts is a biologist with 27 years' tenure in wildlife ecology and 12 years of experience in environmental consulting as a multidisciplinary project manager. With a research background in avian ecology, her expertise includes assessment of impacts and risks to birds and other wildlife from renewable energy and transmission infrastructure and endangered species issues. She has worked in both the public and private sectors and established good working relationships with state and federal agencies and non-profit agencies. Dr. Roberts' project management experience includes energy, transportation, and remediation projects on public and private lands in the western United States, for which she has designed and coordinated field studies; prepared and reviewed technical reports; overseen staff, budgets and deliverables; and provided strategic support through the permitting process. Dr. Roberts has specialized knowledge and experience with birds, including eagle take issues relating to energy projects, including field surveys, reporting, and preparation of Bird and Bat Conservation Strategies and Eagle Conservation Plans. She has designed, conducted, and statistically analyzed the results of biological surveys of birds, vegetation communities, and mammals throughout the United States and abroad. Dr. Roberts has led the preparation of and reviewed complex technical documents related to the National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and various state and federal regulatory requirements.

### YEARS OF EXPERIENCE

24

### EXPERTISE

Wildlife and renewable energy  
Biological resources inventories  
Agency coordination and consultation  
Raptor surveys  
Avian studies  
Eagle conservation planning  
Statistics/analysis  
Permitting strategy  
Postconstruction monitoring  
Bird and bat conservation strategies

### EDUCATION

Ph.D., Ecology and Evolutionary Biology; Dartmouth College, Hanover, New Hampshire; 2006

B.A., Biology; Wesleyan University, Middletown, Connecticut; 1996

### PERMITS

California Department of Fish and Wildlife Scientific Collecting Permit (SC11906), Sr. Natural Resources Project Manager; California

### SELECTED PROJECT EXPERIENCE

**Suncrest Dynamic Reactive Power Support Project; Horizon West Transmission; San Diego County, California.** SWCA provided routing/siting, planning, permitting, compliance, and restoration support work for a new 6-acre reactive power support facility and 1-mile-long underground 230-kilovolt electric transmission line. *Role: Natural Resources Lead. Duties included field surveys, biological resources technical report, responded to data requests from the California Public Utilities Commission, and construction compliance coordination.*

**Moorpark-Pardee No. 4 Project; Southern California Edison (SCE); Ventura and Los Angeles Counties, California.** SWCA provided SCE with environmental services for a 26-mile large capital transmission project. SWCA conducted field surveys for natural and cultural resources, including habitat assessments and protocol surveys for San Fernando Valley spineflower, coastal California gnatcatcher, southwestern willow flycatcher, arroyo toad, and least Bell's vireo, as well as a jurisdictional delineation. *Role: Project Manager and Natural Resources Lead. Coordinated all technical studies and preparation of the GO 131-D evaluation. Identified measures to avoid all permitting for the project and coordinated environmental compliance during construction.*

**Lee Vining Substation Modification Project; SCE; Mono County, California.** SWCA worked collaboratively with SCE to provide environmental support and input to the design of upgrades to the substation and electrical distribution lines that provide power to the town of Lee Vining. The current substation upgrades require removal of obsolete facilities, construction of new substation features on the east side of Lee Vining Creek, and partial undergrounding of the distribution lines. *Role: Project Manager. Coordinated and reviewed natural and cultural resources technical studies, advised SCE on environmental strategy, and ensured fulfillment of monitoring and reporting requirements for permit compliance.*

**SCE Fort Irwin Reliability Project Environmental Assessment; SCE; San Bernardino County, California.** SWCA provided support for this transmission line improvement project located on lands administered by the Bureau of Land Development (BLM) and Department of Defense as well as private land owners. Services include the development of the BLM plan of development (POD), preparation of the environmental assessment (EA), and biological, jurisdictional waters, cultural, and paleontological technical studies and reports to support the

EA, POD, and environmental permits. *Role: Natural Resources Lead. Duties included biological technical report preparation, biological monitoring compliance plan review, and CEQA memorandum review.*

**Moss Landing Interconnection Constraints Analysis; Clearway Energy Group, LLC; Monterey County, California.** SWCA conducted a desktop site assessment, constraints and risk analysis for the Wind Energy Area and proposed cable routes, as identified in the Mott MacDonald report, as well as potential landfall, battery energy storage system, and generation tie-line (gen-tie) locations. *Role: Natural Resources Lead. Reviewed the natural resources technical report.*

**Acorn Solar Environmental Technical Studies; sPower Development Company, LLC; El Centro, Imperial County, California.** SWCA conducted studies of potential environmental constraints including biological studies to support compliance with CEQA and NEPA. *Role: Project Manager. Oversaw preparation of the biological resources work plan for California Department of Fish and Wildlife and BLM review, biological surveys, survey report, jurisdictional delineation report, and land evaluation site assessment.*

**Vikings Solar Project Environmental Services; ZGlobal; Imperial County, California.** SWCA prepared biological resources, cultural resources, aquatic resources, air quality/greenhouse gas emissions, traffic, agricultural land conversion, and paleontological resources studies on an accelerated schedule for a 100-megawatt (MW) solar and storage project in Imperial County. SWCA also provided the client with permitting strategy and CEQA support for the project as it moved through the permitting phase with Imperial County. *Role: Natural Resources Lead. Provided burrowing owl reporting information for the biological resources technical report.*

**Kumeyaay Wind Repower Project; Leeward Renewable Energy Development, LLC; San Diego County, California.** SWCA provided pre-application support with the Bureau of Indian Affairs and San Diego County for this repower wind project. *Role: Natural Resources Lead. Prepared the biological and waters information for the permit matrix and provided site implications from the U.S. Fish and Wildlife Service (USFWS) proposal eagle rule.*

**City of Carlsbad Permitting Services; Southern California Gas Company; San Diego County, California.** SWCA provided planning support including a Coastal Development Permit (CDP) application including a project-path memorandum to identify CDP requirements and steps required to obtain the CDP and other necessary permits, noise memorandum, and archaeological and paleontological report for the natural gas pipeline project. *Role: Natural Resources Lead. Provided project oversight and project-path memorandum review.*

**Biology Environmental Analysis/Biology Construction Support/Wetlands Construction Support, Metro East, Metro West, Deserts, San Jacinto, and Rural Regions; SCE; Multiple Counties, California.** Under a 3-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Natural Resources Lead. Provided subject matter expert input and review of biological deliverables.*

**Camino Solar Environmental Support; Aurora Solar, LLC; Kern County, California.** This proposed 44-MW solar photovoltaic project sited on a combination of BLM and private lands is expected to be one of the first approved under the streamlined permitting of the Desert Renewable Energy Conservation Plan (DRECP). SWCA is providing comprehensive environmental permitting support for the project, including preparation of the POD for the BLM, conditional use permit application for Kern County, and the environmental technical studies for the project, including natural, cultural, and paleontological resources; noise; greenhouse gases; air quality; and traffic. SWCA's resource studies have informed project design and impact minimization: avoidance of jurisdictional waters has been incorporated, and minimization of impacts to Joshua Tree Woodlands will be addressed in the alternatives analysis. SWCA and Aurora Solar worked closely with the BLM at public meetings and in regular phone calls to support the NEPA process and work through the DRECP-specific permitting requirements. *Role: Project Manager. Duties include overall project coordination; schedule management; technical report QA/QC; coordination with BLM, Kern County, and USFWS; and constraints analysis and strategic support.*

**Lake Elsinore Lakeshore Town Center Permitting; LK Properties Groups; Riverside County, California.** SWCA worked with Mebo Properties Development, LLC, to perform biological, jurisdictional waters, cultural, and paleontological resources studies on approximately 25 acres of combined dry land and lake acres. The studies supported the preparation of an environmental impact report for the development of recreation, business, and residential use of the property. The project is located with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) area, and so impacts to biological resources will be permitted through the Riverside Conservation Authority (RCA). SWCA conducted biological field studies and a jurisdictional delineation and prepared a biological resources technical report that meets the MSHCP technical requirements. *Role: Project Manager. Managed SWCA cultural resources and natural resources studies, and coordinated with the RCA and regulatory agencies.*



## BONNIE ROGERS, M.S., NATURAL RESOURCES AND WATER PROJECT MANAGER

As a scientist and Natural Resources Project Manager at SWCA, Bonnie Rogers is responsible for managing waters permit efforts, preparing technical documents, providing recommendations, and conducting agency and client coordination. Bonnie is a former Region 9 Environmental Protection Agency Enforcement Officer, Los Angeles District (LAD) U.S. Army Corps of Engineers (USACE) Senior Project Manager, and National Marine Fisheries Service Scientist III, also with experience working in the private sector, all in California. Bonnie is a Subject Matter Expert in federal permitting, NEPA, wetland delineation, coastal actions, and mitigation, among multiple other topics. While at USACE Bonnie managed highly visible and complex projects, including Environmental Impact Statements and Mitigation Banks, where she carried out informal and formal consultations, led interagency coordination, prepared technical documents, and issued permit decisions.

### YEARS OF EXPERIENCE

10

### EXPERTISE

Ocean and coastal processes, and marine and freshwater systems science

National Environmental Policy Act (EA and EIS) and environmental law

Habitat condition assessments and ecosystem mitigation plans (permittee-responsible, banks)

Project tracking, compliance, investigations, enforcement, and resolution

### EDUCATION

M.S., Biology; CSU Long Beach, California; 2010

B.S., Aquatic Biology; UC Santa Barbara, California; 2005

Marine Science; University of Queensland, Australia; 2003

### TRAINING

National Environmental Policy Act, NOAA; 2010

Endangered Species Act, NOAA; 2010

Regulatory I, USACE, ERDC; 2013

Leadership Development Program Tier I, USACE, LAD; 2013

Hydric Soils, USACE, ERDC; 2013

Cultural Resources, USACE, ERDC; 2013

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

**Camino Solar Jurisdictional Delineation; Avangrid Renewables, LLC; Kern County, California.** *Role: Project Manager.*

**Carlsbad/Carroll Canyon Habitat Restoration; Kinder Morgan Contracting Services LLC; San Diego County, California.** *Role: Project Manager. Permitting*

**City of Sacramento Pump Outfalls Regulatory Permitting; Sycamore Environmental Consultants, Inc.; Sacramento County, California.** *Role: Project Manager. Biological Assessment; Permitting*

**CWA SCE106 TLRR Analysis, Permitting, and Execution; Southern California Edison Company; California.** *Role: Project Manager.*

**SCE EC 007 Biology Environmental Analysis, Metro East, Metro West, Deserts, San Jacinto; Southern California Edison Company; Multiple Counties, California.** Under a three-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Project Manager.*

**SCE EC 011 Wetlands Environmental Analysis; Southern California Edison Company; Multiple Counties, California.** SWCA is providing waters support for multiple tasks and areas within the SCE region, such as multiple Deteriorated Pole Replacement Projects throughout San Bernardino, California. SWCA is assisting with USACE 404 Permits and State Water Board 401 Permits which includes waters and habitat avoidance measures. *Role: Project Manager. Preparation of Jurisdictional Delineation Report, permit application materials, and permit strategy recommendations.*

**SCE EC 012 Wetlands Construction Support; Southern California Edison Company; Multiple Counties, California.** Under a three-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Project Manager. Review of Delineation Report, application materials, and preparation of permit strategy recommendations.*



Leadership Development Program Tier II, USACE, ERDC; 2014

Ordinary High Water Mark, USACE, ERDC; 2014

California Rapid Assessment Method (CRAM), USACE, SCWRP; 2014

Regulatory IIB Decision Making, USACE, ERDC; 2015

Regulatory IIA Procedural Issues, USACE, ERDC; 2015

Regulatory IV Wetland Delineation, USACE, ERDC; 2016

Dredging Fundamentals, USACE, ERDC; 2016

Regulatory III Enforcement, USACE, ERDC; 2017

Third-party Compensatory Mitigation for Southern California, USACE, USEPA, USFWS, CDFW; 2017

Coastal Processes, USACE, ERDC; 2018

Professional Project Management (PMP) California Prep Track, USACE; 2018

Plant Identification Workshop, USACE, ERDC; 2018

## AWARDS / HONORS

Team Member of the Year in Scientific Integrity

Commander Coin Award

Commander Coin Award

USACE Rising Star

Army Commander's Award for Civilian Service Medal

Army Achievement Award for Civilian Service Medal

First Rate Notable, SSURO

## MEMBERSHIPS

Member, Society for Ecological Restoration; 2021

Member, American Institute of Fishery Research Biologists; 2007

Member, Fresno Wildlife Rehabilitation Service; 1999

**Oak Creek Delivery Meter Station Project; Kinder Morgan Contracting Services LLC; Kern County, California.** *Role: Project Manager.*

**Victorville Pipeline Project MMRP Implementation; Meridian Consultants, LLC; Victorville, San Bernardino County, California.** *Role: Project Manager. Preparation of Jurisdictional Delineation Report and data.*

**\*Ballona Wetlands Restoration Project; CDFW/LA County; California.** Large-scale coastal ecological restoration and flood management project. *Role: Senior Project Manager, WRDA Manager. Led EIR/EIS process and coordination.*

**\*Colorado Lagoon Mitigation Bank; City of Long Beach; Long Beach, CA.** First Southern California Mitigation Bank in a coastal wetland lagoon, involving local, state, and federal partners. Planning, application of Mitigation Rule and Interagency Joint Mitigation Bank Guidelines, completion of Bank Enabling Instrument, Public Notice, assessment of ecological resource mitigation credits and scheme, approval of sediment testing plan, guidance for long-term protection, finalization of Mitigation Bank. *Role: IRT Chair. Federal Mitigation Bank Chair, Senior Project Manager, Marine Ecologist, Permitting Lead*

**\*Van Norman Reservoir Water Project; LADWP; Los Angeles, CA.** Installation of new water pipelines and tanks crossing aquatic resources and wetlands. *Role: Senior Project Manager. Senior Project Manager completing complex field evaluation, coordination with USEPA regarding nearby prior violation, and resolution of delineation resulting in non-jurisdictional feature determination and No Permit Required letter.*

**\*Broad Beach shoreline protection; BBGHAD; California.** Controversial shoreline protection project in marine protected area. *Role: Senior Project Manager. Led IP permit process, alternatives analysis, EFH/ESA consultations, marine mitigation and monitoring plan, close coordination with Coastal Commission, issued IP.*

**\*Soft-bottom channel maintenance; LADPW; California.** Conduct maintenance in WOUS channels across Los Angeles County in compliance with ESA permit conditions, and triggers. *Role: Senior Project Manager, WRDA Manager. Evaluated all County maintained soft-bottom channels, ESA/EFH consultations, species monitoring requirements, compensatory mitigation, issue GP.*

**\*Devil's Gate reservoir flood management; LADPW; California.** Controversial sediment removal project in occupied flood control reservoir. *Role: Senior Project Manager, WRDA Manager. Led permit process, public notice/comments, ESA consultation, 404 alternatives, HMMP, issued IP.*

**\*Marina del Rey Dry Dock Storage; Applicant; California.** Visible project to install a dry boat storage and docks. *Role: Senior Project Manager. Led rare Public Hearing meeting, permit process, addressed comments, prepared navigability analysis, and issued Section 10 IP.*

**\*Irvine 405 Widening Projects; CalTrans; Orange County, California.** Multiple freeway widening projects along Interstate 405. *Role: Senior Project Manager. Field condition assessments using California Rapid Assessment Method (CRAM).*

## MARISOL SANCHEZ, B.S., STAFF BIOLOGIST

Marisol Sanchez is an experienced biologist with 2 years of experience in natural resources. Her research interests include native plant propagation, habitat restoration, threatened and endangered species surveys and monitoring, and invasive species eradication. Marisol has experience implementing and monitoring Southern California habitat restoration efforts and conducting special-status species surveys in a variety of local habitats. She also has extensive experience conducting biological desktop reviews and drafting reports for Southern California Edison improvement projects. Marisol has a strong background in native plant maintenance and in managing exotic and weedy plant species. Her academic training enables her to provide a range of services to municipal planning and public works departments.

### YEARS OF EXPERIENCE

2

### EXPERTISE

Habitat restoration

Native plant propagation

Bat acoustic monitoring

Sensitive and general biological resource surveys

### EDUCATION

B.S., Ecology, Behavior, and Evolution;  
University of California, Los Angeles;  
2021

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

**Soda Mountain Solar Project; Confidential Client; San Bernardino County, California.** SWCA is managing regulatory permitting for the Soda Mountain Solar Project. Services include agency outreach and coordination to establish a new California Environmental Quality Act (CEQA) lead agency and create a workable permitting pathway for the project. Agencies consulted include the California Department of Fish and Wildlife (CDFW), Lahontan Regional Water Quality Control Board, and San Bernardino County. SWCA prepared an incidental take permit and is preparing the Environmental Impact Report, performing fieldwork, and preparing technical studies for the project in coordination with CDFW, the current lead agency. *Role: Staff Biologist. Conducted presence/absence surveys for special-status species Crotch's bumble bee (*Bombus crotchii*) and burrowing owl (*Athene cunicularia*). Assisted with bat acoustic monitoring survey efforts. Assisted in the preparation of the biological assessment report for Crotch's bumble bee.*

**Otay River Mitigation Bank; HomeFed Otay Land II, LLC; Carlsbad, California.**

SWCA is leading the restoration design and permitting of approximately 1.5 miles of Otay River mainstem through an area historically disturbed by sand mining and now invaded with tamarisk. The project team worked with regulatory agencies, the City of Chula Vista, and the private developer (HomeFed Corporation [HomeFed]) to finalize the design, obtain regulatory authorization, and implement the first phase (approximately 40 acres of restoration) in fall 2017. In addition, SWCA is working with HomeFed and the City of Chula Vista to implement the Mitigation Bank (approximately 140 additional acres of restoration directly downstream of the first phase). As part of the Mitigation Bank, the project team is designing the surrounding trails to be installed. The final trail design seeks to maintain access to facilities while maximizing the experience for the public and protecting natural resources. Educational kiosks, signage, and select trail closures have been proposed, and all designs will follow the local guiding documents. In 2020, HomeFed contracted SWCA to continue the work that their staff had facilitated, with a focus on monitoring and maintaining the initial phase installed in 2018 and finalizing and constructing the next phase. Tasks under this contract include baseline habitat surveys and data collection, oversight of plans and specifications, mitigation bank development, permitting, and construction oversight and monitoring. As part of the design and monitoring of the project, the team has completed surveys for over 2 miles of river and the associated watershed. Surveys include California Rapid Assessment Method assessments, benthic invertebrate community, geomorphology, endangered species, vegetation mapping, and aquatic resource delineation, as well as surface and subsurface hydrology. This data is being used for baseline, reference, and post-restoration condition and have been used to inform design and ecological success standards for permit compliance. *Role: Staff Biologist. Conducted annual quantitative monitoring of the restoration sites by performing vegetation transects and capturing photo point data.*

**\*Multiple Projects; Michael Baker International; Orange County, California.** Michael Baker International is a leading provider of engineering and consulting services, including design, planning, architectural, environmental, construction and program management, and has been solving complex infrastructure challenges for more than 80 years. The Southern California Natural Resources team partners with clients and stakeholders to foster a balanced ecosystem that leaves the land, water, air and communities more socially, economically and

environmentally sustainable. They ensure that projects comply with the National Environmental Policy Act (NEPA) as well as a host of other environmental requirements related to CEQA, state-specific voluntary remediation and redevelopment, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Resource Conservation and Recovery Act (RCRA). *Role: Ecosystem Restoration Intern. Participated in qualitative and quantitative monitoring of restoration sites, provided oversight on replanting efforts at restoration sites, evaluated plant material to ensure specimens were healthy prior to installation, participated in bird nesting surveys and rare plant surveys to clear project sites for future construction work, collected photographs and detailed notes from work sites to capture project progress, and assisted with report writing by developing photograph exhibits.*

**\*Multiple Projects; Fullerton Arboretum; Orange County, California.** Fullerton Arboretum is a 26-acre botanical garden that serves students, faculty and the broader community as an urban oasis, an outdoor laboratory for research and environmental education, and a steward of worldwide plant conservation and regional agricultural heritage. As one of only three arboreta in California accredited at the highest level by ArbNet—an international program recognizing an arboretum's professionalism and capacity for scientific and conservation-related collaboration—Fullerton Arboretum is home to rare and endangered species, historically significant cultivars, and a nationally recognized citrus collection. *Role: Horticulturist. Communicated regularly with staff and supervisors to ensure timely completion of projects; propagated common and rare California native plants by seed and cuttings in the nursery; identified weedy species for eradication using physical and chemical means; maintained five sections of the 26-acre arboretum by pruning plants, installing plants, and watering.*

**\*San Francisquito Canyon Chaparral Restoration; TreePeople; Los Angeles County, California.** TreePeople is an environmental nonprofit organization based in Southern California. In 2018, TreePeople began restoring about 25 acres of the San Francisquito Canyon chaparral that was impacted by the 2002 Copper Fire. Partnering with U.S. Forest Service, California Botanic Garden, Santa Clarita Valley Water Agency, and RECON Environmental, and thanks to funding from the National Fish and Wildlife Foundation, TreePeople and more than 5,000 volunteers have planted over 18,000 native trees, grasses, and shrubs. This work aims to improve watershed health and ecosystem function by removing invasive species and restoring native habitat in areas of the canyon that struggled most to recover from the fire. At the beginning of 2022, work expanded to include a substantial riparian habitat with unprecedented success, showing rapid growth rates of the nursery plants and cuttings installed. Helping restore a portion of this creek will benefit water sequestration and amphibian populations, including habitat for the endangered red-legged frog (*Rana draytonii*). *Role: Angeles Forest Habitat Restoration Intern. Assisted in the reintroduction of native plants to restoration sites impacted by the Copper Fire; conducted mortality surveys on various restoration sites, including sites with the rare species Nevin's barberry (Berberis nevinii), to monitor long-term survival of plants; collected detailed notes on work site conditions for communication to partner organizations and supervisors.*

## HEATHER ROTHBARD, B.S., ENVIRONMENTAL SPECIALIST

As an Environmental Professional, Ms. Rothbard has multi-disciplinary experience in wetlands and environmental services which include: wetland delineations and permitting, environmental inspection, habitat assessment, enhancement, restoration planning, and site development, rare, sensitive, threatened and endangered species surveys, preparation of NEPA documents, integrated management plans, and biological reviews and assessments.

### YEARS OF EXPERIENCE

16

### EXPERTISE

Wetland delineation  
Environmental inspection  
Environmental permitting  
Special Status Species  
Restoration management  
Section 404/401 permitting  
Environmental Site Assessments (ESAs)

### EDUCATION

B.S/Botany: Emphasis in Environmental Science and Ecology; Arizona State University, Tempe, Arizona; 2003

### REGISTRATIONS / CERTIFICATIONS

CDFG Voucher Collection Permit, Threatened and Endangered Plant Species, 2010

### TRAINING

Advanced Wetland Soils (WTI), Houston, TX; 2014  
Wetland Delineation Training (WTI), San Diego, CA; 2008  
USFWS Biological Assessment Workshop, Phoenix, AZ; 2006  
DoD Plant Conservation Workshop, Berkley, CA; 2009  
Desert Waters and Wetlands Field Training; 2013  
Arid Saline Wetlands Field Training, 2012  
40-hour HAZWOPER Training, 2008 and 8-hr Refresher 2009-2014

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

**\*Senior Botanist – Rare Plant Surveys, Pure Water San Diego Program North City Projects, Miramar and Lakeside, San Diego County, CA.** Team Lead for botanical survey efforts on a 1,000-acre site for construction of transmission, gas, water and wastewater lines, and associated facilities, stations, and substations. Surveys included plant and habitat inventory, and sensitive, rare, threatened, and endangered plant mapping.

**\*Senior Botanist/Biologist – High Speed Train (HST), Bakersfield to Palmdale Section, California High Speed Rail Authority, Kern County, CA.** Team Lead for T&E and other special status plant species along a corridor planned for the development of the California High Speed Train. Joshua tree density mapping and early and late spring and early summer botanical surveys were conducted along a 40-mile proposed ROW for construction of the train for the stretch between Bakersfield and Palmdale, CA.

**\*Senior Biologist – Flat-Tailed Horned Lizard Surveys, Cahuilla Gold Mine, Imperial County, CA.** Senior Biologist for flat-tailed horned lizard (*Phrynosoma mcallii*), a California species of special concern. Surveys were performed for plans to widen existing roads and develop new roads on an existing mine site on Torres Martinez Cahuilla Band of Indian's tribal land.

**\*Senior Biologist – Desert Tortoise Surveys, Calico Mine, Barstow, CA.** Senior Biologist for protocol level surveys for Mojave Desert Tortoise, a federally and state listed threatened species. Surveys were conducted, on a current mine site, along 30 1 mile long transects for electrical, conductive testing and bore drilling sites.

**\*High Speed Train (HST), Palmdale to Los Angeles Section, California High Speed Rail Authority, Los Angeles County, CA.** Team Lead for T&E and other special status plant species along a corridor planned for the development of the California High Speed Train. Early and late spring and early summer botanical surveys were conducted along a 35-mile proposed ROW for construction of the train for the stretch between Palmdale to Santa Clarita, CA.

**\*Staff Biologist - San Diego Air Force Space Surveillance Station Revegetation, Brown Field, San Diego, CA.** Performed biological surveys and is assisted with compliance with the revegetation requirement and Biological Opinion at this lead clean-up site at Brown Field in south San Diego County.

**\*Task Manager/Botanist - Vegetation mapping and rare plant survey, Sunset Cliffs Park, San Diego, CA.** Managed and performed biological surveys and prepared a biological report and revegetation plan for this park improvement project on Point Loma in San Diego.

**\*Staff Biologist - Mira Sorrento Parkway, San Diego, CA.** Monitoring ecologist responsible for annual and semi-annual monitoring and reporting. This project involves the revegetation of several acres of coastal sage scrub along a newly created road on property managed by the City of San Diego.

**\*Task Manager/Biologist - Thurgood Marshall Middle School Wetland Revegetation, San Diego, CA.** Project Manager and monitoring ecologist responsible for annual and maintenance monitoring and reporting. This project involves the revegetation of a creek bed and adjacent wetlands along Carroll Canyon Creek as part of mitigation requirements for the San Diego Unified School District.

**\*Staff Botanist - Endangered Species Surveys, San Diego Air Force Space Surveillance Station, CA.** Field botanist for Otay tarplant (*Deinandra conjugens*) endangered species surveys for the US Air Force which includes on-going monitoring for this 100-acre antenna array site. Tasks included transect surveys and mapping of Otay tarplant individuals and populations.

**\*Task/Field Manager/Botanist - Spring Canyon Riparian Restoration Project, US Army Corps of Engineers, San Diego County, CA.** /Field manager for this 5-acre site that has restored, enhanced, and created riparian habitat mitigation associated with impacts from border fence projects. Long-term activities include habitat enhancement, monitoring, and reporting. Yearly surveys included belt, point, and transect surveys to evaluate tree survivorship, health of the ecosystem and create a botanical inventory of present species.

**\*Task/Field Manager/Botanist - Endangered Willow Monardella Habitat Enhancement, MCAS Miramar, San Diego, CA.** Field manager for this enhancement project with the overall goal to protect existing populations of willow monardella (*Monardella viminea*) and improve current habitat conditions so that these populations can expand. She managed and participated in censusing, mapping, and conducting habitat assessments of existing willow monardella populations and assisted in the development of on-going enhancement and monitoring techniques.

**\*Assistant Project Manager/Botanist - Imperial Irrigation District Managed Marsh Planting, Calipatria, CA.** Assistant Project Manager for developing, planning, and planting of a 365-acre created marsh. The Imperial Irrigation District is developing over 900 acres of a Managed Marsh for the benefit of certain listed species, including the Yuma Clapper Rail and the California Black Rail. This project encompasses 365 acres in 20 cells and is Phase 1 of the larger 900-acre project. The team began the planting in early September 2009, with a required completion date of October 31, 2009, which was met. This schedule required the development of a planting and water management plan that would assure the plants adequate water during the hot weather, yet without excessively inundating plants in the lower portions of the cells. The team completed the project on schedule, and with excellent survivorship and health of the introduced plant material. Ms. Rothbard supervised the field crews in the planting activities and handled daily water management tasks in accordance with the needs of the plants and in collaboration with the client.

**\*Task Manager/Staff Botanist - Invasive Plant Species Control at Marine Corps Air Station Miramar, San Diego, CA.** Staff botanist and coordinator for the control of invasive weeds in the canyon environments of MCAS Miramar. Target species were sought, mapped, treated, and evaluated in the riparian areas of San Clemente and Rose Canyons on the Base. Ms Rothbard participated in thoroughly surveying all areas of San Clemente Canyon and Rose Canyon on the Station to which access was granted. The purpose was to locate and treat invasive weeds and move towards their total eradication from these selected areas of the Station. Target species included trees, perennial herbs, and annual species. Ms Rothbard served as a biological monitor to assure that sensitive species were protected during treatment events. When new weed species were identified, Ms Rothbard aided in consultation with the Station botanist to determine a plan of action for their treatment. Ms Rothbard also provided photo documentation of the treatment activities, and submitted quarterly reports for this project, including maps, geodatabase updates, and photographs.

**\*Biologist - Dye Road Burrowing Owl Clearance Surveys, Ramona, CA.** Performed biological surveys in the right of way footprint for the realignment of Dye Road. These surveys included summer and wintering presence/absence surveys for burrowing owl (*Athene cunicularia*) Ms Rothbard followed CDFW Burrowing Owl Consortium Guidelines.

**\*Staff Botanist - Rare Plant Survey for San Diego County, San Vicente Road, Poway, CA.** Performed rare plant surveys along 7 miles of right of way along San Vicente Road in Poway, California. Plants surveyed for included a dozen species on the San Diego County Sensitive Species List.

**\*Biologist - Palmdale Power Plant Biological Surveys, Palmdale, CA.** Performed biological surveys in the right of way of a high voltage power line. These surveys included rare and sensitive plants, desert tortoise (*Gopherus agassizii*), and burrowing owl (*Athene cunicularia*) surveys.



## PAR SINGHASENI, M.S., PROJECT BIOLOGIST

Par Singhaseni is a biologist with more than a decade of professional and academic/research experience, including service as a field biologist on environmental and development projects across California. A graduate of California State Polytechnic University, Pomona, she has worked extensively in Kern, San Bernardino, Santa Barbara, and Los Angeles Counties. Assignments have included biological surveys and monitoring for multiple solar power projects, unexploded ordnance remedial investigations, and large-scale utility projects. Par is proficient at writing technical documents including biological technical reports, work plans, California Environmental Quality Act (CEQA) documents, nesting bird management plans, Bird and Bat Conservation Strategies, Incidental Take Permit applications, Biological Assessments, and species-specific relocation plans. She is an accomplished wildlife biologist and specializes in herpetology and ornithology. Additionally, Par has extensive experience monitoring nesting birds, desert tortoise, burrowing owls, and desert kit foxes.

### YEARS OF EXPERIENCE

14

### EXPERTISE

Technical writing: biological technical reports, CEQA documents, permit applications, management plans

Biological surveys: protocol burrowing owl and desert tortoise surveys, nesting bird surveys

Construction monitoring: burrowing owl, desert kit fox, desert tortoise, and nesting birds

### EDUCATION

M.S., Biological Sciences; California State Polytechnic University, Pomona; 2011

B.S., Biology; California State Polytechnic University, Pomona; 2007

### TRAINING

Introduction to Desert Tortoises & Field Techniques, Desert Tortoise Council; 2018

Western Burrowing Owl Workshop, Coastal Training Program, Elkhorn Slough, 2019

Fairy Shrimp Identification Course, Mary Belk, 2019

### MEMBERSHIPS

Host Committee Staff and Member, Desert Tortoise Council 2010-2023

### SELECTED PROJECT EXPERIENCE

**Green Beanworks B Construction Support; sPower Development Company, LLC; Lancaster, Los Angeles County, California.** SWCA was retained by sPower to provide biological resources services in support of the proposed Green Beanworks Solar Projects located in the City of Lancaster, California. SWCA was tasked with providing a biological constraints analysis (BCA) for the projects, which consists of proposed solar generation facility and a 500 foot buffer surrounding the project site. The BCA 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 support the Conditional Use Permit from the City of Lancaster. After completion of the BCA, SWCA was retained by sPower to prepare two Initial Study/Mitigated Negative Declarations (IS/MNDs) satisfying the CEQA review for two solar facilities at the proposed Green Beanworks site. *Role: Biologist. Conducted pre-construction surveys for desert tortoise, desert kit fox, burrowing owl, and American badger, and prepared biological reports.*

**Antelope Expansion 3 Project Environmental Services; sPower Development Company, LLC; Los Angeles County, California.** SWCA prepared an MND for a 150-acre solar project in unincorporated Los Angeles County. Our specialists conducted technical studies to support the findings of the MND, including rare plants, jurisdictional delineation, and general biological resources. SWCA project managers and planners worked closely with the project applicant, sPower, Los Angeles County staff, CDFW, and the Audubon Society to identify appropriate on-site and off-site compensatory mitigation for project impacts. Following the receipt of a high volume of technically complex comments to the Draft MND, SWCA staff worked closely with Los Angeles County staff to respond to public comments in an efficient and legally defensible manner. Our project manager and key staff also provided support for public meetings and Planning Commission hearing. The Project was approved by the Los Angeles County Board of Supervisors in September 2019. *Role: Biologist. Conducted field surveys and prepared biological reports.*

**Confidential Project; Confidential Client; Lancaster, Los Angeles County, California.** SWCA provided natural resources support for a 1,500-acre solar project in Los Angeles County. SWCA conducted wildlife and botanical surveys, including a nesting raptor survey, at the project site, the results of which were incorporated into a comprehensive biological technical report. SWCA also conducted a jurisdictional delineation of hydrological features potentially subject to the jurisdiction of the USACE,

Regional Water Quality Control Board, and the California Department of Fish and Wildlife (CDFW), and prepared a jurisdictional delineation report. SWCA's biological reports were used to analyze the project impacts in an environmental impact report pursuant to the CEQA. SWCA provided environmental compliance support for construction; conducted protocol surveys for burrowing owl, Swainson's hawk, rare plants, and other resource; and coordinated with CDFW to avoid impacts to burrowing owls. *Role: Biologist. Conducted reconnaissance-level surveys, protocol burrowing owl surveys, and biological monitoring. Conducted avian and bat mortality surveys and reporting during the operations phase of the project. Drafted and implemented a CDFW-approved burrowing owl relocation plan. Lead author of biological technical reports.*

**Southern California Edison Company (SCE) Environmental Clearance On-Call Contract, Metro East, Metro West, Deserts, San Jacinto; SCE; Multiple Counties, California.** Under a 3-year on-call contract, SWCA is providing environmental compliance and management support for thousands of operations and maintenance projects across SCE's transmission and distribution systems and generation facilities in Los Angeles, Kern, San Bernardino, Riverside, Ventura, Orange, Mono, Inyo, and Tulare Counties. *Role: Environmental Specialist. Conducted field surveys, conducted desktop analysis for projects on private and public lands. Conducted numerous biological reviews and drafted desktop assessment reports for the SCE Bureau of Land Management desert district.*

**Former Mojave Gunnery Range "C" MRS-04; Bristol Environmental Remediation Services, LLC; Kern County, California.** SWCA was contracted by Bristol Environmental Remediation Services, LLC, to provide natural and cultural resources services for unexploded ordnance (UXO) removal actions (RAs) for three projects in the former Mojave Gunnery Range "C" area: MRSs 04, 06, and 07. As part of this project, SWCA provided natural and cultural resources background research, surveys, and cultural resources recording. The natural resources surveys included a wetland delineation, rare plant survey, vegetation community mapping, desert tortoise protocol survey, and a survey for nests of birds protected under the Migratory Bird Treaty Act. SWCA's work plans, survey reports, and post-monitoring report were approved by USACE with minimal comment. *Role: Biologist and Assistant Project Manager. Conducted comprehensive biological field surveys for special-status plants and wildlife, including desert tortoise, burrowing owl, and American badger, and rare plants. Lead author of biological technical reports. Coordinated field teams during monitoring.*

**Baldy Mesa Solar Natural Resources Study; sPower Development Company, LLC; Adelanto, San Bernardino County, California.** SWCA provided natural resources surveys and reports for a 1,100-acre proposed utility-scale solar project in the city of Adelanto, San Bernardino County, California. Studies conducted included a protocol survey for desert tortoise (which identified occupied desert tortoise burrows), a rare plant survey, Mohave ground squirrel survey, Mojave fringe-toed lizard habitat assessment, and vegetation community mapping. In addition, SWCA conducted unmanned aerial vehicle (drone) flights to collect high-resolution aerial imagery and used the resulting data to map off-highway vehicle tracks, trash dumps, and other disturbances throughout the site. These data were analyzed to create detailed geographic information system (GIS)-based habitat assessments for Mohave ground squirrel and desert tortoise using information from range maps, local records, local disturbance, soil types, and vegetation information. SWCA coordinated with the California Department of Fish and Wildlife (CDFW) to review project permitting requirements and potential mitigation. *Role: Biologist. Conducted reconnaissance-level and protocol desert tortoise surveys. Lead author of technical reports.*

**Sand Canyon Plaza Mitigation Compliance; Sand Canyon Plaza LLC; Santa Clarita, Los Angeles County, California.** SWCA was retained by Sand Canyon Plaza LLC to provide natural resources support for a mixed-use project that includes residential, commercial, and retail use. SWCA prepared mitigation monitoring plans, conducted preconstruction wildlife surveys, and provided biological monitoring during construction. *Role: Biologist. Conducted mammal trapping and biological monitoring and prepared reports.*

**RFCS46 - eTS 46872 Prado Dam Relocation Line 2000; Southern California Gas; Riverside County, California.** SWCA is providing ongoing environmental compliance support for the Prado Dam Relocation Line 2000 Project located in Chino Hills, CA. The project involves the relocation of an existing pipeline to accommodate the future modifications of the Prado Dam spillway. The services include biological surveys for nesting birds, least Bell's vireo, coastal California gnatcatcher, and fairy shrimp; biological monitoring; and sound level monitoring. SWCA provided WEAP training documents, developed a nesting bird management plan, and developed a restoration plan. *Role: Project Manager. Coordinate field teams for surveys and biological monitoring, draft nesting bird management plan and restoration plan.*

## ERICH SCHICKENBERG, B.S., NATURAL RESOURCES SUPPORT

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 extensive knowledge of the vegetation communities, flora, and special-status plant species that occur in California and the western portion of the United States including the Mojave Desert. His experience includes special-status plant and wildlife surveys, invasive species management, tree inventories, arborist assessments, restoration monitoring, native seed collection, restoration planting, mitigation land monitoring, vegetation community mapping, and fuel load assessments. Mr. Schickenberg Additionally, he 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, Ridgway's rail, and Alameda whipsnake. He is also an

### YEARS OF EXPERIENCE

13

### 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

ISA Qualified Tree Risk Assessor

### TRAINING

40-hour basic wetland delineation

California Department of Fish and Wildlife rare plant survey protocols

Forest Diseases Workshop

Flora of the Sierra Nevada Workshop

Carex Workshop

Brassicaceae Workshop

Forest Diseases Workshop

International Society of Arboriculture (ISA)-certified arborist and an expert in environmental compliance, including biological monitoring and stormwater inspection.

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

**Los Gatos Vegetation Management Plan; Town of Los Gatos - Dept of Parks and Public Works; Los Gatos, Santa Clara County, California.** SWCA is currently assisting the Town of Los Gatos with the development of a comprehensive Vegetation Management Plan, using the California Vegetation Treatment Program guidance, to promote wildfire safety along the town's roadways and open space areas. Given that the Town is situated on the Wildland Urban Interface (WUI), this plan is critical for the Town of Los Gatos and its residents to ensure that public and private resources are protected to the greatest extent feasible in the event of a wildfire.

*Role: Arborist/Biologist. Conducted the field surveys for the project.*

**\*San Vicente Redwoods Public Access Plan; Land Trust of Santa Cruz; 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; City of Half Moon Bay; 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 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). Results of analysis were incorporated into trail location and design planning to limit impacts to ESHAs and wildlife species.*

**\*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 Ridgway's (California) clapper rail. *Role: Biologist. Approved by USFWS project biological monitor; monitored for salt marsh harvest mouse and Ridgway'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 vegetation removal process.*

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

**\*Permanente Quarry; Lehigh Hanson; Cupertino, Santa Clara County, California.** Managed multiple aspects of Santa Clara County Surface Mining and Reclamation Act (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, stormwater management and compliance, Best Management Practice 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 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.*

**\*Mare Island Dry Dock Fish Salvage; Allied Defense Recycling; Vallejo, Solano County, 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, that would restore approximately 600 acres of palustrine wetlands on lands owned by the California 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, oversaw several special-status plant surveys, and assisted with associated reports.*

**Purisima-to-the-Sea Parking Area & Trails Feasibility Study; MidPeninsula Regional Open Space District; San Mateo County, California.** SWCA is currently working with the MidPeninsula Regional Open Space District to assess the feasibility of creating a new regional trail that will connect the Purisima Creek Redwoods Open Space Preserve to the San Mateo coast. *Role: Botanist and biologist. Led special-status plant surveys for Choris' popcorn flower, conducted biological resource surveys, and assisted with the preparation of the biological resources evaluation to identify sensitive biological resources along the proposed trail alignments.*

\* Jack and Laura Dangermond; **Santa Barbara County, California.** This approximately 25,000-acre property includes diverse coastal scrub, chaparral, woodland, grasslands, dune, and beach strand communities. *Role: Botanist. Completed several years of special-status plant surveys and vegetation community mapping in support of BRA and permit applications.*

**Sanborn Solar Expansion Project; Mojave County, California.** This project is a proposed solar expansion in Sanborn, California. SWCA has conducted protocol level Joshua tree surveys and botanical surveys in support of this project. *Role: Botanist. Surveyed and mapped Joshua trees and special-status plants in the 1000+ acre proposed Sanborn solar expansion site in Mojave County.*

**Soda Mountain Solar Project; San Bernadino County, California.** This project is a proposed solar electrical generation and storage facility in the Mojave Desert, California. SWCA has conducted a wetland delineation in support of this project. *Role: Botanist. Delineated wetlands and mapped waters in the approximately 2,67- acre proposed Soda Mountain solar site in San Bernadino County.*



## LAUREN STRONG, B.S., BIOLOGIST

Lauren Strong is biologist from SWCA's San Diego office with extensive experience in field surveying and monitoring sensitive/endangered species. Ms. Strong received her B.S. in Biology from Roanoke College in 2014. Ms. Strong's project experience includes both large and small-scale projects across San Diego County, California. Her areas of expertise include avian point counts, nest monitoring, target banding, avian territory mapping, and botanical surveys.

### YEARS OF EXPERIENCE

10

### EXPERTISE

Avian Point-Count Surveys

Environmental Inspector/Specialty Monitor Training

Avian Point Count Surveys and Monitoring

Avian Nest Searching and Monitoring

Burrowing Owl Protocol Surveys

SWFL Protocol Surveys (pending CA permits)

LBVI Protocol Surveys

Botanical Surveys

### EDUCATION

B.S., Biology; Roanoke College, Virginia; 2014

### PERMITS

U.S. Fish and Wildlife Service, Threatened & Endangered Species Recovery Permit (ESPER0009523): AZ, CA, CO, MT, NV, NM, TX, UT, WY (Regions 2-6 & Region 8); Permittee: Southwestern willow flycatcher (CA, NV)

### TRAINING

Environmental Inspector/ Specialty Monitor Training, SWCA Environmental Consultants; 2020

HAZWOPER Dress Out, Compliance Solutions; 2022

CP231: Qualified Preparer of Storm Water Pollution Prevention Plans (QPswppp) - California, StormwaterONE; 2022

NEPA Regulatory Training Series, SWCA Environmental Consultants; 2021

### SELECTED PROJECT EXPERIENCE

**Wildlife Hazard Assessment of Redlands Municipal Airport, City of Redlands, San Bernardino County, California.** *Roles: Wildlife Specialist.* Ms. Strong assisted with the development of a Wildlife Hazard Assessment in accordance with Federal Aviation Regulations. Ms. Strong conducted point count surveys twice per month for 12 consecutive months. She collected wildlife data while traveling between survey points, set up camera stations, and conducted nighttime spotlighting surveys to document wildlife movement through the airfield.

**Ocean Knoll Canyon Habitat Restoration; San Diego Botanic Garden (SDBG); San Diego County, California.** *Role: Avian Specialist.* Ms. Strong assisted SDBG with qualitative monitoring visits to assess the progress and success of invasive species management and native plant installation and coordinated and conducted seasonal avian point-count surveys. Recruited volunteers to assist in removing invasive plants from restoration areas.

**KMI SWML Integrity Dig Env Services; Kinder Morgan Product Pipelines; San Diego, Riverside, and Imperial County.** *Role: Avian Specialist.* Ms. Strong reviewed potential environmental resources at project locations prior to scheduled work to determine what surveys and permits are required for work to begin. She conducted pre-construction burrowing owl surveys to determine habitat suitability. Ms. Strong was responsible for promptly preparing an environmental assessment report for the client.

**MEBO Lakeshore Town Center EIR Support; LK Properties Groups; Riverside County, California.** *Role: Avian Specialist.* Ms. Strong conducted a season of Least Bell's vireo protocol surveys, provided potential impact analysis, developed mitigation measures, and provided client and lead agency reporting for a land development project adjacent to Lake Elsinore..

**Suncrest Overhead to Underground Conversion Project; Confidential Client; Alpine, San Mateo County, California.** *Role: Biological Monitor.* Ms. Strong conducted biological sweeps prior to work activities, performed tailboard training, identified on-site biological concerns, ensured workers adhere to nesting bird buffers, conducted bird nest surveys and monitored active nests. She completed survey reports at the end of each day and communicates with designated personnel.

**Biological and Cultural Support-Irvine Park, CA FUDS Munitions Response Site; Confidential Client; Orange, Orange County, California.** *Role: Avian Specialist.* Ms. Strong monitored crews working in critical habitat for California Gnatcatcher and delineated areas to avoid. She is also conducted nesting bird surveys and monitored resources when found and provided real time nesting bird avoidance measures.

## CHRISTINA TORRES, B.S., WILDLIFE BIOLOGIST

Ms. Torres' experience includes field surveys, biological monitoring, and report preparation for terrestrial biological resources in southern California. She has participated in a variety of surveys for sensitive biological resources such as pre-construction, nesting bird, rare plant, habitat assessments as well as protocol and focused surveys for arroyo toad, coastal California gnatcatcher, burrowing owl, Crotch bumble bee, western snowy plover, California least tern, least Bell's vireo, Arizona Bell's vireo, desert tortoise, Joshua tree, Quino checkerspot butterfly, and rare plants. Ms. Torres has monitored construction activities and restoration projects throughout southern California within a variety of vegetation communities. Ms. Torres also has experience in leading aquatic resources/wetland delineations.

### YEARS OF EXPERIENCE

5

### EXPERTISE

Avian Nest Surveys & Monitoring  
 Aquatic Resources & Wetland Delineations  
 Botanical & Fauna Identification  
 Burrowing Owl Surveys & Monitoring  
 California Gnatcatcher Survey Assistance & Construction Compliance  
 Construction & Restoration Monitoring  
 Desert Tortoise Surveys & Monitoring  
 Entomology & Pollinator Surveys  
 Environmental Compliance (CEQA, CWA, ESA, MBTA)  
 Habitat Assessments  
 Least Bell's Vireo Survey Assistance & Construction Compliance  
 Sensitive Biological Resources Surveys  
 ArcGIS Online  
 GIS Data Collection

### EDUCATION

B.S., Wildlife, Fish, and Conservation Biology; University of California, Davis  
 A.S., Biological Science; San Diego Mesa College

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

**Soda Mountain Solar Project Permitting Support, ZGlobal, San Bernardino County, California.** The Soda Mountain Solar Project (Project) is a utility-scale photovoltaic (PV) solar facility on approximately 2,670 acres of land managed by the Bureau of Land Management (BLM) in San Bernadino County, California. Existing infrastructure surrounding the Project site includes the four-lane I-15 highway, two high-voltage electric transmission lines, a distribution line, wireless cellular telephone towers, two fiber optics cables, and two fuel pipelines. *Role: Biologist. Ms. Torres was a lead biologist for a desktop habitat assessment and subsequent focused field surveys for Crotch bumble bee and authored the corresponding report.*

**On-Call Environmental Compliance Projects; San Diego Gas & Electric Company; San Diego County and Orange County, California.** Multiple environmental on-call projects throughout SDG&E's service territory, including the Drone Investigation Assessment and Repair (DIAR), Corrective Maintenance Program (CMP), Electric System Hardening (ESH), Transmission Construction and Maintenance (TCM), Wood to Steel, and Distribution Communications Reliability Improvement (DCRI) programs. *Role: Biologist. Responsible for conducting habitat assessments, pre-construction surveys, and construction monitoring in support of Covered Species under SDG&E's Subregional Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP) Amendment, including but not limited to arroyo toad (Anaxyrus californicus), western spadefoot (Spea hammondi), coastal California gnatcatcher (Poliptila californica californica), least Bell's vireo (Vireo bellii pusillus), and narrow endemic plant species.*

**MEBO Lakeshore Town Center EIR Support; LK Properties Groups; Riverside County, California.** A borrow site is required to supply imported fill to support a development site in western Riverside County, California. *Role: Biologist. Conducted a least Bell's vireo protocol survey along Lake Elsinore.*

**Death Valley National Park Road Repairs; Steve Manning Construction; Inyo County, California.** Cultural and Natural Resources monitoring required for road repairs to fix damage caused by recent flooding throughout Death Valley National Park, per the National Park Service and Federal Highway Administration. *Role: Biologist. Ms. Torres conducted construction monitoring in support of the desert tortoise within areas above 2000 feet' of elevation within the park.*

**\*Broadband SR-79 and SR-371 Project; Caltrans District 8; Riverside County, California.** The California Department of Transportation (Caltrans) proposes to install a Fiber Optic Cable System along SR-79 and SR-371, totaling approximately 31 miles. *Role: Biologist/Delineation Specialist. Ms. Torres assisted with a Western Riverside County Multiple Species Habitat Conservation Plan Survey*

**TRAINING**

Arroyo Toad Workshop, The Wildlife Society; 2022

California Bumble Bee Atlas Survey Protocol Training, The Xerces Society and CDFW; 2022 & 2023

Field Botany of San Diego, San Diego State University; 2022

Field Techniques for the Mojave Desert Tortoise, Desert Tortoise Council; 2021

Introduction to the Mojave Desert Tortoise, Desert Tortoise Council; 2020

Bumble Bee Field Survey Techniques and Identification Workshop, SD Natural History Museum; 2020

Intermediate Bird Identification Course, San Diego River Park Foundation; 2020

Wintering Shorebird Identification Workshop, The Wildlife Society; 2020

Riparian Restoration & Tamarisk Beetle Workshop, River's Edge West; 2020

Snowy Plover and Least Tern Survey Protocol Training, Sea and Sage Audubon Society; 2019

First Aid/CPR/AED Certified

**MEMBERSHIPS**

Member, The Wildlife Society: Western Section, Southern California Chapter

Member, California Native Plant Society

*Area amphibian species habitat suitability assessment for arroyo toad (Anaxyrus californicus) within USFWS-designated arroyo toad critical habitat and a mountain yellow-legged frog (Rana muscosa) habitat suitability assessment in potentially suitable habitat within the San Jacinto Mountains. Ms. Torres also served as the field lead for the aquatic resources/wetland delineation survey.*

**\*West Colton Pedestrian and Bike Trail Project; Sub to KOA; San Bernardino County, California.** Consultant provided CEQA Documentation and supporting technical studies for the project in the City of Colton, CA. The proposed project would include the construction of an approximately 1-mile-long Class I pedestrian bike trail along an unimproved corridor. *Role: Biologist. Ms. Torres assisted with a habitat assessment for the federally-listed (endangered) Delhi Sands flower-loving fly (Rhaphiomidas terminatus abdominalis).*

**\*Crossroads North Storm Drain Improvement; Diamond Valley, LLC.; Riverside County, California.** The Crossroads North Storm Drain Improvement Project will permanently fill three man-made drainages and construct stormwater infrastructure to allow for commercial and residential development on approximately 50 acres of land in Winchester, CA. *Role: Biologist. Ms. Torres assisted with nighttime clearance surveys for adult, metamorphs, and tadpoles of the western spadefoot (Spea hammondi). Ms. Torres observed approximately 90 western spadefoot tadpoles, 10 metamorphs, and two adults.*

**\*Technical Studies for the Vega SES 4 Solar Project Access Road; Zglobal; Imperial County, California.** Consultant provided biological services for the proposed Vega SES 4 Solar project located in Imperial County. The proposed project would encompass an approximately 20.25 linear mile vehicle access route from Interstate 8 at Gordon's Well Road to the main solar field. *Role: Biologist/Delineation Specialist. Ms. Torres served as biological resources task manager and conducted a biological resources assessment, aquatic resources delineation, and co-authored accompanying reports.*

**\*Piraeus Point Townhomes Project; Lennar Homes; San Diego County, California.** Planned construction of a 149-townhome complex on an 11.8-acre property located within the City of Encinitas, California. *Role: Biologist. Ms. Torres assisted a permitted biologist with protocol surveys for coastal California gnatcatcher during the 2022 breeding season; surveys were positive for the species.*

**\*Barstow Sanitary Landfill Pre-Development of Phase 1C Cell and Ancillary Facilities Project; San Bernardino County Department of Public Works; San Bernardino County, California.** Biological surveys for an approximately 127-acre space to be cleared for expansion of Barstow Landfill's boundary for future refuse disposal. *Role: Delineation Specialist. Ms. Torres served as lead delineator for an aquatic resources delineation survey and co-authored the aquatic resources delineation report. During the survey, Ms. Torres incidentally observed three potential desert tortoise burrows. Desert tortoise scat was observed at two of the burrow locations. In addition, the location of one desert tortoise pallet was recorded.*

**\*Fox Point Farms Project; Nolen Communities; San Diego County, California (March 2022-2023).** Planned construction of a 250-unit residential community on a 21.48-acre site located within the City of Encinitas, California. *Ms. Torres assisted a permitted biologist with protocol surveys for coastal California gnatcatcher during the 2022 breeding season.*

**\*Clinton Keith Road Extension Project; Riverside County Transportation Commission (RCTD); Riverside County, California.** The project will construct the last segment of the new Clinton Keith roadway, from Leon Road to SR-79 in Murietta, CA. *Role: Biological Monitor. Ms. Torres conducted pre-construction burrowing owl and nesting bird surveys and monitored construction activities. Ms. Torres incidentally observed a least Bell's vireo pair during construction monitoring and located an active least Bell's vireo nest; she continued to monitor the status of the nest throughout the construction phase.*

## MASON TOWNLEY, B.S., BIOLOGIST

Mason Townley is an Assistant Project Manager and biologist in SWCA's San Diego office. Mr. Townley has multiple years of experience working on large-scale and small-scale environmental projects throughout southern and central California and has a wide array of field and project management experience. Mr. Townley is experienced in construction monitoring, nesting bird surveys, pre-construction, and post-construction surveys, and writing daily reports.

Mr. Townley has monitored and surveyed for special status species such as California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, golden eagle, burrowing owl, Stephens' kangaroo rat, San Bernardino kangaroo rat, Quino checkerspot butterfly, desert tortoise, arroyo toad, and a multitude of rare plants occurring in California.

### YEARS OF EXPERIENCE

3

### EXPERTISE

Has conducted thousands of hours of onsite construction monitoring and surveys for various listed species, bird nests, and water features.

### EDUCATION

B.S., Biology; Humboldt State University; 2018

### REGISTRATIONS / CERTIFICATIONS

Certified Rescue Diver, California; NAUI Worldwide; 2019

HAZWOPER Certified, California No. BEZJJUC; HRL Compliance Solutions, Inc.; 2022

### TRAINING

Yellow-billed Cuckoo Workshop, Southern Sierra Research Station; 2021

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

**On-Call Environmental Compliance Projects; San Diego Gas & Electric Company; San Diego, CA.** Multiple environmental on-call projects including Wildfire Safety & DIAR (Drone Investigation, Assessment & Repair Program) in San Diego and Orange County. *Role: Biologist. Responsible for conducting in-depth desk-based Pre-Activity Survey Reports for multiple DIAR projects across SDG&E's service territory.*

**\*Proposed Commercial Development; Tapo Street, City of Simi Valley, Ventura County, CA.** Biologist responsible for conducting a biological inventory and desktop jurisdictional delineation at this property. Summary of findings, recommendations, and minimization measures were provided to the client within the biological inventory report and addendum letter. *Role: Biologist.*

**\*Proposed Residential Development; Pacific Coast Highway, City of Malibu, Los Angeles County, CA.** Biologist responsible for conducting a biological assessment at this property. Summary of findings, recommendations, and minimization measures were provided to the client within the biological assessment report. *Role: Biologist.*

**\*Restoration Plan Implementation; Pacific Coast Highway, City of Malibu, Los Angeles County, CA.** Biologist responsible for overseeing compliance of a five-year restoration plan at this property. Duties include conducting biological monitoring during weed removal and native tree planting, and providing recommendations as needed. Reports are submitted annually for five years; biologist ensures project meets mitigation and success criteria. *Role: Biologist.*

**\*Proposed Residential Development; Kanan Dume Road, City of Malibu, Los Angeles County, CA.** Biologist responsible for conducting a biological assessment at this property. Summary of findings, recommendations, and minimization measures were provided to the client within the biological assessment report. *Role: Biologist.*

**Large Capital Environmental Consulting Services; SCE; Multiple Counties, California.** SWCA is a prime contractor under an on-call contract to provide environmental consulting services (biological, cultural and paleontological, water quality/wetland permitting, licensing), for moderate to large-scale utility system upgrades and improvements for SCE's Transmission and Distribution Organizational Unit. Projects include support for California Public Utilities Commission (CPUC)-licensed projects, proponent's environmental assessment (PEA) development, National Environmental Policy Act (NEPA) projects, renewable interconnections, execution of environmental mitigation, and environmental oversight during construction. *Role: Biologist.*



## YEARS OF EXPERIENCE

4

## EXPERTISE

Habitat assessment

Botanical surveys

Bird banding (nestlings)

Invasive species management, wildlife identification

Special-status species and nesting bird surveys, identification, and monitoring

ArcGIS/ArcMap/ENVI software

Yosemite Toad (*Anaxyrus canorus*; YOTO) and Sierra Nevada yellow-legged frog (*Rana sierrae*; SNYLF) site assessment, surveys, and monitoring as a USFS approved Qualified Biologist

GIS and remote sensing mapping

Environmental compliance and construction monitoring

## EDUCATION

M.S., Ecology and Evolutionary Biology; Tulane University, New Orleans, Louisiana; 2019

B.S., Environmental Biology; Tulane University, New Orleans, Louisiana; 2018

## TRAINING

**Master-Level CRLF Field Workshop (Feb-Oct 2024)– The Wildlife Project with Jeff Wilcox and Jeff Alvarez– El Dorado, Marin, Sonoma, Santa Clara, and San Benito Counties**

Riparian Bird Workshop, Central Coast Chapter of the Wildlife Society – Santa Paula, CA (June 2023)

**Declining Aquatic Herps of the Central Coast Workshop with Jeff Alvares and Robert Cooper– Central Coast Chapter of The Wildlife Society (April 2023)**

**CRLF Level I workshop – The Wildlife Project with Jeff Wilcox and Jeff Alvarez (July 2023) – Sonoma County**

Wetland Training Institute: Basic Wetland Delineation Certificate (40 hours) – Sacramento, CA (April 2022)

Yosemite Toad and Sierra Nevada Yellow-legged frog workshops – Stephanie Barnes; District Aquatic/Fisheries Biologist US Forest Service - (August 2021 and May 2021)

## REBECCA WANG, M.S., STAFF BIOLOGIST

**Ms. Wang** is a biologist in SWCA's San Luis Obispo office with biological resource experience throughout California and specialized experience within the Central Coast and Central Valley regions. Ms. Wang has over 4 years of experience conducting biological assessments, special-status species surveys, and environmental compliance for a wide variety of projects with an emphasis on transmission and distribution line vegetation management and the planning and construction phases of development projects. Ms. Wang's responsibilities have included compliance monitoring and training, special-status species site assessments, surveys, and monitoring, and the preparation of technical reports. Ms. Wang has conducted habitat assessments, protocol-level or equally intensive surveys, and/or monitoring for the following relevant special-status species: American badger (*Taxidea taxus*; AMBA), blunt-nosed leopard lizard (*Gambelia sila*; BNLL), burrowing owl (*Athene cunicularia*; BUOW), California red-legged frog (*Rana draytonii*; CRLF), California tiger salamander (*Ambystoma californiense*; CTS), giant kangaroo rat (*Dipodomys ingens*; GKR), northern California legless lizard (*Anniella pulchra*), San Joaquin antelope squirrel (*Ammospermophilus nelson*; SJAS), San Joaquin kit fox (*Vulpes macrotis mutica*; SJKF), southwestern pond turtle (*Actinemys pallida*), Tidewater goby (*Eucyclogobius newberryi*), steelhead trout (*Oncorhynchus mykiss*), Swainson's hawk (*Buteo swainsoni*; SWHA), western spadefoot toad (*Spea hammondi*; WST), Yosemite Toad (*Anaxyrus canorus*; YOTO), Sierra Nevada yellow-legged frog (*Rana sierrae*; SNYLF), Spotted Owl (*Strix occidentalis*; SPOW), and Pacific Fisher (*Pekania pennanti*). In addition, Ms. Wang provides workers' environmental awareness trainings, compliance monitoring for construction of various project types, habitat restoration monitoring and reporting, preliminary site assessments, environmental impact analysis, development of project-specific mitigation strategies, and assists with environmental inspection and technical document preparation, including task specific reports and emergency permit application packages for CDFW, RWQCB, and USACE. Ms. Wang has also supported collecting data for and creating GIS figures for project reports including project vicinity, project location, species occurrence, vegetation mapping, and jurisdictional delineations.

- **California red-legged frog:** ± 100 hours of focused survey, ± 500 hours of biological monitoring. **Ms. Wang has acquired a total of 33 hours of focused CRLF field time and handling experience under permitted biologists from workshops, observed 14 CRLF egg masses, observed 138 and handled 82 CRLF adults from workshops and projects collectively, and also handled ~28 CRLF larval forms, observed 14 and handled 4 metamorphs, and observed 6 subadults from workshops and projects.** Handling was under the supervision of 10a1a Recovery Permit holders Jeff Alvarez and Jeff Wilcox.



- **California Tiger Salamander:** Handled 98 CTS larval forms and 2 hybrid CTS adults and observed 1 CTS native adult under the supervision of permit holder Jeff Alvarez (TE-27427) with 6 hours of field experience. Handled 107 CTS larval forms on April 20, 2024 and 6 hours of field experience under permit holder Jeff Wilcox (TE-068745), bringing **total to 205 CTS larval forms handled, 2 hybrid CTS adults handled, and 12 hours of field handling experience with CTS.**
- **Western pond turtle:** ± 100 hours of focused surveys, habitat assessment, and biological monitoring. Handled 1 northwestern pond turtle and handled 4 southwestern pond turtles of a total of 24 observed southwestern pond turtles during the CRLF Level I workshop with The Wildlife Project conducted by Jeff Alvarez and Jeff Wilcox. Handled and relocated 2 SW pond turtles in Gaviota Secant Wall Emergency Repair Project. Observed 5 more SW pond turtles during Master Level CRLF workshops, bringing **total to 29 SW pond turtles observed and 6 SW pond turtles handled, and 1 NW pond turtle handled.**
- **Nesting birds:** Over 4 years of experience with surveys, avoidance delineation and monitoring for the species. Over 1,000 hours of biological monitoring.
- **Rare Plants:** Over 50 hours of focused rare-plant surveys for Springville clarkia (*Clarka springvillensis*; 1B.2), red hills soaproot (*Chloroalum grandiflorum*; CRPR 1B.2), black flowered figwort (*Scrophularia atrata*; CRPR 1B.2), La Panza mariposa lily (*Calochortus simulans*; CRPR 1B.3), Tompkin's sedge (*Carex tompkinsii*; CRPR 4.3), Congdon's woolly sunflower (*Eriophyllum congdonii*; CRPR 1B.2) and Congdon's Lewisia (*Lewisia congdonii*; CRPR 1B.3).
- **Blunt-nosed leopard lizard:** Conducted BNLL surveys according to protocol established by California Department of Fish and Wildlife (CDFW) to detect species occupancy on project sites of clients. Ms. Wang has 3 confirmed sightings of BNLL from surveys conducted during juvenile and adult BNLL seasons in 2020. Ms. Wang is a qualified Level II BNLL Surveyor with 100+ surveys and crew lead experience.
- **Swainson's hawk:** Conducted nesting bird surveys for Swainson's hawk for various clients including SCE. Ms. Wang has observed multiple individuals and has found Swainsons' hawk nests with nestlings in Madera.
- **San Joaquin Kit Fox:** Participated in SJKF den monitoring and camera checks (12 cameras) for 7 earthen dens, 2 known pipe dens and 4 natal dens. Accumulated 4 hours of SJKF focused monitoring as a Seasonal Biological Technician at McCormick Biological Consulting, Inc. (MBI), and 50+ SJKF biological monitoring hours.
- **Burrowing Owl:** Conducted 6 days of protocol surveys (AM & PM) for burrowing owl for Lake Success Reservoir Expansion Project in 2021 and observed 2 individuals at this project location. Ms. Wang also has conducted pre-activity surveys for BUOW during other projects while working at other environmental consulting firms.
- **San Joaquin Antelope Squirrel:** Conducted 100+ pre-activity surveys for wildlife including SJAS and made 16 personal observations of SJAS during BNLL surveys as a seasonal biological technician for MBI in 2020.

Qualified monitor; ConocoPhillips' USFWS ITP (ESPER4671392) and CDFW CD (2080-2023-016-05) for 2800 Telephone Road Soil Remediation Project.

#### Other

U.S. Forest Service approved qualified biologist to independently survey and monitor for Yosemite Toad and Sierra Nevada yellow-legged frog.

#### SURVEY AND HANDLING

California red-legged frog; 300+ hours of biological monitoring and 24 hours of focused handling experience from workshops

Western pond turtle; 100+ hours of focused surveys, habitat assessment, monitoring, and handling

California tiger salamander; 12+ hours of field handling experience and 50+ hours monitoring.

Nesting birds; 1000+ hours with surveys, avoidance delineation, and

Rare plants; 50+ hours of focused rare-plant surveys for Springville clarkia, red hills soaproot, black flowered figwort, La Panza mariposa lily, Tompkin's sedge, Congdon's woolly sunflower, and Congdon's Lewisia

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

**El Camino Real Bridge Replacement Project (08EVEN00-2018-F-0490); City of Atascadero; San Luis Obispo County, California.** SWCA Environmental Consulting provided environmental service to support the replacement of the El Camino Real Bridge over Santa Margarita Creek. *Role: Wildlife Biologist/Authorized Biologist.* Ms. Wang provided pre-activity surveys, biological monitoring, and environmental awareness training. Ms. Wang was authorized to independently capture, handle, and survey for CRLF through the Programmatic Biological Opinion for Projects Funded or Approved Under the Federal Highway Administration's (FHWA) Federal Aid Program (PBO 8-8-10-F-58).

**Toro Creek Road Exposure Repair; Southern California Gas; San Luis Obispo County, California.** SWCA Environmental Consulting provided biological monitoring services to support the repair of an exposed SCG pipeline. *Role: Authorized biologist.* Ms. Wang assisted with providing biological services including pre-activity surveys and biological monitoring for special-status species including CRLF and prepared daily monitoring reports. Ms. Wang was authorized under the SCG Company's USFWS BO (2022-0041548 S7) to independently survey and handle all life stages for CRLF.

**Runway Ranch Improvement Project; Paso Robles, San Luis Obispo County, California.** SWCA Environmental Consultants provided biological services including a reconnaissance-level survey documenting suitable habitat and potential for CRLF occurrence. *Role: Wildlife Biologist.* Ms. Wang assisted with pre-activity daytime and nighttime surveys for CRLF and observed 6 subadults and 2 breeding adults in the drainages and ponds on the project site.

**2800 Telephone Soil Road Remediation Project; Atlas Technical Consultants; Santa Barbara County, California.** SWCA provided environmental consulting services to Atlas Technical Consultants for the Conoco Phillips 2800 Telephone Road Soil Remediation Project in Santa Maria, Santa Barbara County, California. *Role: Wildlife Biologist/Surveyor.* Conducted preconstruction surveys, environmental trainings, and construction monitoring.

**Arroyo Grande Creek Channel Emergency Capacity Restoration Project, Phase I; County of San Luis Obispo Department of Public Works; Arroyo Grande, San Luis Obispo County, California.** SWCA Environmental Consulting provided biological

monitoring services to support the County's Arroyo Grande Creek Channel Waterway Management Program which is a comprehensive flood control and habitat improvement project constructed within the lower reaches of Arroyo Grande Creek and the Los Berros Creek diversion channel. This project was comprised of emergency sediment removal activities along Arroyo Grande Creek and Los Berros Creek Diversion Channel and occurred in existing sediment management zones as well as areas where the main channel has migrated to the secondary channel due to sediment deposits from the 2022-2023 winter season. *Role: Biological Monitor.* Ms. Wang provided pre-activity surveys and biological monitoring, and assisted Sara Snyder and Brian Dugas in relocating 4 CRLF metamorphs and adult frogs during dewatering and creek diversion activities. She also observed a total of 14 CRLF during biological monitoring and submitted sightings to CDFW.

**Gaviota Creek Secant Wall Emergency Repair; Caltrans; Gaviota, Santa Barbara County, California.** Caltrans and Cal Portland performed emergency repairs to damaged existing revetments and creek scouring that has resulted in over-steepened slopes compromising the stability of Highway 101 postmile 47.3. SWCA Environmental Consultants conducted pre-activity surveys and biological monitoring during the construction of the secant pile wall and barrier slab, removal and replacement of the concrete barrier, roadway restoration, dewatering and water diversion activities, and relocation of fish and frog species. *Role: Wildlife Biologist.* Ms. Wang provided pre-activity surveys, biological monitoring for Steelhead – southern California DPS (*Oncorhynchus mykiss irideus*) and California red-legged frog (*Rana draytonii*, CRLF), and assistance with fish and amphibian relocation during project activities. Ms. Wang handled one

two-striped garter snake, two SW pond turtles, one adult CRLF (July 12, 2023) and ~24 CRLF tadpoles from July 12 (~20 tadpoles), July 15 (1 tadpole), and July 19 (3 tadpoles), and 14 steelhead trout along with other species of tadpoles (including CRLF larvae) and fish.

**Highway 41 – PM 10.03; Emergency Culvert and Headwall Repair Project; Caltrans; Atascadero, San Luis Obispo County, California.** Caltrans and Souza Construction replaced a culvert and headwall that had been damaged during the winter 2023 storms. SWCA Environmental Consultants conducted biological monitoring in support of these repairs. *Role: Wildlife Biologist. Ms. Wang provided biological monitoring for California red-legged frog (Rana draytonii, CRLF).*

**Highway 101 -PM47.5 Gaviota Landslide Emergency Repair Project; Caltrans; Santa Barbara County, California.** SWCA Environmental Consultants conducted biological monitoring for California Department of Transportation for the Caltrans Emergency Repairs 05-1Q6704 in Gaviota, Santa Barbara County, CA, where a landslide occurred on the steep canyon wall along Highway 101, at Postmile (PM) 47.5 northbound in Gaviota Pass, endangering motorists and the functionality of the culvert and water channel. SWCA was retained by John Madonna Construction (JMC) to provide biological survey and monitoring. *Role: Wildlife Biologist. Provided biological monitoring for California red-legged frog (Rana draytonii, CRLF) and nesting bird surveys.*

**Rincon Creek Exposure Emergency Repair; SoCalGas; Santa Barbara County, California.** SoCalGas performed emergency repairs to an exposed section of a natural gas pipeline on the bank of Rincon Creek that became exposed during January 2023 winter storms and subsequent flood events that eroded the creek's western slope. SWCA Environmental Consulting provided biological monitoring services on behalf of Southern California Gas Company in support of the Rincon Creek Exposure Emergency Repair Project located in the city of Carpinteria in unincorporated Santa Barbara County.

*Role: Wildlife Biologist. Provided biological monitoring for California red-legged frog (Rana draytonii, CRLF), southwestern pond turtle (Actinemys pallida), Northern California legless lizard (Anniella pulchra), Steelhead – Southern California DPS (Oncorhynchus mykiss irideus), yellow warbler (Setophaga petechia), and two-striped garter snake (Thamnophis hammondi).*

**Exposure Emergency Repair; SoCalGas; San Luis Obispo County, California.**

SoCalGas performed an emergency repairs at two project sites, including a culvert repair in Santa Maria and a pipeline exposure HDD replacement in Cayucos which had become exposed and damaged following the January 2023 winter storms and flood events.

*Role: Biologist. Provided pre-activity surveys and biological monitoring for CRLF.*

**Del Rio Road Bridge Stabilization; City of Atascadero, San Luis Obispo County, California.** The City of Atascadero completed emergency repairs to the abutment of Del Rio Bridge at Graves Creek following damage sustained as a result of winter 2023 storms. Work occurred within waters of the U.S. and included dewatering a work area within Graves Creek that provides suitable habitat for CRLF and steelhead trout. The City of Atascadero completed embankment repair and construction of scour protection for approximately 90 linear feet along the eastern abutment below Del Rio Road Bridge over Graves Creek.

*Role: Wildlife Biologist. Ms. Wang provided biological monitoring for CRLF and steelhead trout.*

**\*California red-legged frog surveys at Los Padres National Forest; Aspen; Goleta, Santa Barbara County, California**

Terra Verde Environmental Consulting, now part of SWCA provided biological services to Aspen and conducted herpetofauna surveys throughout the Los Padres National Forest for species including California red-legged frog. Survey areas included Gaviota Peak, Cachuma Lake, Happy Canyon/Sunset Valley, Aguajita Canyon/Refugio Pass, Paradise Rd/Red Rocks, and Figuerora Mountain. Biologists conducted protocol surveys for CRLF following the guidelines detailed in USFWS's *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog August 2005*. *Role: Wildlife Biologist. Conducted protocol-level surveys for California red-legged frog.*

## AUSTIN XU, M.S., FIELD TECHNICIAN

Mr. Xu is a staff biologist in SWCA's Pasadena, California, office with over 6 years of experience conducting field work in a variety of California ecosystems; designing and implementing research projects; working as a member of a close-knit team; and organizing and interpreting data. Mr. Xu is proficient at identifying North American birds by sight and sound, handling common Southern California passerine species as well as banding, aging, and sexing birds. Mr. Xu has particular experience surveying and monitoring southwestern willow flycatchers (SWFL) and is competent at identifying Southern California flora and butterflies. He is proficient in the use of field equipment such as kestrel meters, global positioning system (GPS) devices, and sound recording apparatus.

### YEARS OF EXPERIENCE

6

### EXPERTISE

General biological resource surveys

Avian ecology

North American bird identification and handling

Butterfly identification

Avian surveys and monitoring

Southwestern willow flycatcher surveys and monitoring

Nesting migratory birds

Mist netting

Southern California flora

Data analysis

Geographic information system (GIS) mapping

### EDUCATION

M.S., Biology; California State University, Los Angeles; 2020

B.S., Biology; c: Ecology and Evolutionary Biology; California State University, Fullerton; 2017

### PERMITS

Arizona Game and Fish Department Scientific Collecting Permit (SP406826), Southwestern Willow Flycatcher Activities in Mohave, La Paz, and Yuma Counties

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

**\*2021 SWFL Project; Bureau of Land Management; Alamo Lake State Park, Arizona.** Mr. Xu served as a biological field technician for monitoring the federally endangered SWFL for a population restoration project along the Lower Colorado River. *Role: SWFL Field Technician.* Mr. Xu conducted SWFL territory surveys followed by intensive nest searching and monitoring if pairs were found. Mr. Xu conducted all surveys following rigorous safety and survey guidelines to reduce habitat disturbance to the federally listed SWFL. Additionally, his work included the preparation of thorough site mapping and descriptions throughout the project area.

**Confidential Solar Project; Confidential Client; Lancaster, Los Angeles County, California.** SWCA provided natural resources support for a 1,500-acre solar project in Los Angeles County. SWCA conducted wildlife and botanical surveys, including a nesting raptor survey, at the project site, the results of which were incorporated into a comprehensive biological technical report. SWCA also conducted a jurisdictional delineation of hydrological features potentially subject to the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and the California Department of Fish and Wildlife (CDFW) and prepared a jurisdictional delineation report. Based on this information, the project was designed to avoid impacts to jurisdictional waters and avoid lengthy permitting. SWCA's biological reports were used to analyze the project impacts in an environmental impact report pursuant to the California Environmental Quality Control Act. SWCA is now providing environmental compliance support for construction; conducting pre-construction protocol surveys for burrowing owl, Swainson's hawk, rare plants, and other resources; and coordinating with CDFW to avoid impacts to burrowing owls. *Role: Staff Biologist. Conducted plant and burrowing owl pre-construction protocol surveys.*

**Mojave Desert Land Trust Palisades Ranch Restoration Assessment; California Desert Land Conservancy DBA Mojave Desert Land Trust; San Bernadino County, California.** SWCA is working with Mojave Desert Land Trust to draft restoration designs to return a portion of the Mojave River to its floodplain and restore riparian habitat for special-status birds, amphibians, and fish along the Mojave River at Palisades Ranch near Helendale, California. SWCA has conducted topographic data processing, historical aerial photograph analysis, hydrologic and hydraulic analyses and modeling, geomorphic assessment, installation of shallow groundwater wells and groundwater monitoring, soils and vegetation mapping, and breeding bird surveys to inform restoration planning and river restoration designs of a 150-acre abandoned agricultural field along the Mojave

River. *Role: Staff Biologist. Conducted bird surveys for breeding riparian birds and other species in the Mojave River.*