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CALIFORNIA ENERGY COMMISSION

JAMES
ACKERMAN

Education & Certifications

- Bachelor of Science, Geology, California State University Sacramento (1988)
- OSHA HAZWOPER and 8-hour OSHA HAZWOPER supervisor training
- Qualified SWPPP Developer (QSD) #GO6493

Overview

Mr. Ackerman has over 30 years of professional experience in the fields of energy resource exploration, geotechnical consulting, environmental consulting and construction. His Professional career began as a well-site geologist (commonly known as a mudlogger) working on natural gas exploration in the Sacramento Valley and geothermal resource exploration in the California Geysers area of Lake County, California and Kyushu, Japan. Mr. Ackerman's three years of geotechnical experience included assessing geologic hazards in the greater South San Francisco Bay Area following the Loma Prieta earthquake and slope stability study of an embankment that failed during construction of a new landfill cell.

His sixteen years of environmental consulting experience involved all aspects of implementing and managing remedial investigation and soil/groundwater remediation at military, commercial and industrial facilities. Constituents of concern investigated/remediated include total petroleum hydrocarbons (TPH), chlorinated solvents, poly-aromatic hydrocarbons (PAHs), metals, pesticides, chemical weapons degradation compounds, perchlorate and unexploded ordinance (UXO) compounds in soil and/or groundwater.

Most recent State service includes applying my professional skills at the California Geologic Energy Management Division (Cal-GEM) to assist in the implementation of well stimulation treatment regulation and the California Energy Commission (CEC) to assess the environmental impacts of proposed power plant projects during the certification process.

Experience

California Energy Commission – Engineering Geologist - 2022 to Present

To support the CEC process to certify prospective power plants, assess the potential environmental impacts with respect to water resources, solid waste, utility services, geologic hazards, and paleontological resources.

California Geologic Energy Management Division - Engineering Geologist – 2015 to 2022

As part of the Cal-GEM SB-4 Unit staff to implement well stimulation treatment (WST) regulation in California, took the technical lead in developing the form and process for oil & gas operators to disclose WST data in a manner that would facilitate creation of a reliable database. Prepared guidance documents for operator submission of the disclosure form and supporting analytical data.

Worked with technical, IT and management staff to prepare a searchable website for WST disclosure data. The Well Stimulation Disclosure Website team was recognized by the DOC with a Superior Accomplishment Award for achieving the goal of creating a searchable website prior to the January 1, 2016, deadline.

Also participated with other WST Unit staff to provide technical support during the design of the WellSTAR tracking and reporting system.

Reviewed online disclosure and analytical data forms submitted by operators into the WellSTAR system. Work with operators to resolve errors in on-line forms and uploaded documents. As part of the WST permit application evaluation, review operator's analysis of the presence of faults in the 5xADSA and the risk of fluid migration out of the well stimulation zone. Review operator provided geologic evaluations, structural contour maps and cross-sections. Evaluate queried disclosure data for quality and accuracy in support of preparing the WST Program Annual Report.

Turn-Key Construction Services, Inc - Senior Geologist – 2010 to 2014

Supplied office support for construction projects by preparing pre-construction documents including work plans, health & safety plans, quality control plans and storm water pollution prevention plans. Coordinated project logistics with field staff in remote locations. Obtained encroachment permits and provided submittals on construction projects. Assisted in tracking budgets on large construction projects. Prepared proposals for various construction and demolition projects.

While serving as Quality Control (QC) Manager on a project to restore the embankment at Success Dam for the USACE, monitored work quality with respect to project specifications and used the Quality Control System to (QCS) to track construction progress. Served as QC Manager on numerous infrastructure construction projects at both Sierra Army Depot and Fallon NAS. Served as Site Safety Officer for installation of groundwater treatment system conveyance pipeline at the PG&E Hinkley facility and the removal action at a future school site near Marysville, California.

In support of a voluntary removal action at a former manufactured gas plant (MGP) site for PG&E during 2012, monitored dust, noise and VOCs; and sampled air particulates for PAH concentration to evaluate the risk to surrounding residents. Collected confirmation soil samples to verify completion of soil remediation. Inspected BMPs and storm water discharge in accordance with the SWPPP to comply with the SWRCB Construction General Permit.

Jacobs Engineering - Project Geologist/Project Manager – 2004 to 2010

Provided technical expertise and project/task management for various DOD projects. During 2010, managed the USACE task order to implement the groundwater monitoring program at the Deseret Chemical Depot facility in Utah. This project included tasks to improve the groundwater monitoring program as more appropriate for a federal facility on the 2005 BRAC list. As part of a hydrogeologic assessment, statistical analysis was used to demonstrate arsenic and molybdenum in groundwater were naturally occurring and could be removed from the list of analytes for groundwater monitoring. Operating out of a home office coordinated a multi-disciplined team from various offices under different time zones to complete the various tasks associated with this project.

As part of the Jacobs team implementing the Long Term Groundwater Sampling Program (LTGSP) to remediate TCE from groundwater at the former Castle AFB Superfund site, managed the task of groundwater treatment plant sampling/reporting and semiannual water level measurement of 220 wells, coordinated fieldwork, managed groundwater database, prepared monthly O&M reports of groundwater treatment plants, assisted in preparing semiannual and annual reports, and attended quarterly Remedial Project Manager (RPM) meetings. As of the end of 2009, approximately 2,730 lbs. of TCE had been removed from groundwater at Castle Airport since groundwater remediation began in 1997. As an example of fate and transport analysis, correlated the sporadic increase of TCE concentration observed in one monitoring well with the periodic use of a nearby auxiliary municipal water supply well. The program was continually evaluated and reduced to minimize cost to the client. In fall 2009, coordinated staff and subcontractors to decommission 64 monitoring well sites and 17 SVE sites in optimizing soil/groundwater remediation at Castle Airport.

During the summer of 2007, managed a project to clean and inspect (8) 60K gallon JPTS fuel USTs at Beale AFB to comply with CCR Title 23 requirements.

Other project work at the Castle Airport included providing technical support on a performance-based task order to remediate and close 10 fuel release sites; conducted soil sampling to assess effectiveness of existing SVE system, installed additional multi-screened SVE wells to optimize vapor recovery, prepared monthly O&M reports monitoring remediation progress, conducted soil sampling to assess the completion of remediation, assisted in preparing closure reports. During fall 2006, coordinated and implemented closure of ten existing or former UST/AST/ OWS sites by removal, soil excavation or investigation.

Overseas work in the PAC RIM included conducting a soil/groundwater investigation of a POL facility at Kunsan AB in Korea. Responsibilities to implement this project included procuring/shipping equipment and supplies, meeting with Base staff and Korean environmental agencies regarding project implementation, conducting fieldwork, evaluating analytical results and site geology with respect to off-base migration of petroleum compounds, and preparing the soil/groundwater investigation report. Based on the results and recommendations of the investigation report, the Air Force implemented a plan to remediate petroleum compounds in groundwater beneath Korean land adjacent the base, thereby improving community relations.

In addition to supplying technical expertise and managing projects, aided the Regional Program Manager in developing DOD, State and municipal business opportunities for the Sacramento office. Attended job walks for RFPs solicited by the USACE on the SAC ERS contract. Assumed lead and supporting roles on various AFCEE, AFCESA and USACE proposal efforts.

Risk-Based Decisions, Inc. - Project Geologist – 2002 to 2003

Provided technical expertise on behalf of a firm inexperienced with field work by implementing and conducting soil/soil gas/groundwater investigations of chlorinated solvent releases at commercial properties in support of litigation. While preparing a soil/groundwater investigation report for PCE release from a dry-cleaning facility, determined that PCE was primarily affecting the top of the deeper target aquifer, based on an evaluation of previous groundwater monitoring data. This information was used in focusing subsequent groundwater investigation. Conducted random soil sampling as part of the PEA process to assess potential future school sites. Perform groundwater monitoring of a petroleum hydrocarbon plume at a retail fueling facility in the environmental sensitive region of South Lake Tahoe.

Augeas Corporation - Project Geologist/Project Manager – 2000 to 2002

Managed projects, conducted site investigations, evaluated aquifer characteristics, and implemented groundwater remediation associated with the environmental compliance program for retail fuel facilities under California State UST Cleanup Fund (USTCF) reimbursement protocols. Reviewed and approved groundwater monitoring reports prepared by staff geologist. Brief clients on project progress and aid them with reimbursement claims process. Maintained good rapport with State regulatory representatives regarding scheduling for work plan submittals, remedial investigation and progress of remediation efforts. Constructing a GAC groundwater treatment system with other team members at a retail fueling facility and obtained a NPDES permit to discharge treated water into a nearby creek.

Anderson Consulting Group - Project Geologist/Project Manager – 1999 to 2000

Managed projects and conducted site investigations of various commercial properties, industrial facilities, municipal roadways, and LUST sites. Conducted remedial investigation at an explosive manufacturing facility to determine the lateral and vertical extent of perchlorate in groundwater. Oversaw soil remediation in preparation of expansion construction at a high school. Used non-parametric statistical analysis to evaluate groundwater analytical data from a former land impoundment site to select monitoring parameters.

Terranext/ERM-West - Project Geologist/Project Manager – 1994 to 1998

Coordinated the UST removal program for Union Pacific Railroad Company (UPRR) in the California/Oregon region to comply with RCRA Subtitle I UST removal deadline of December 1998. Managed projects and conducted field work associated with UST fuel release sites and Phase II investigations at UPRR properties. Conducted remedial investigations, supervised soil remedial excavations, and administered groundwater monitoring of (7) LUST sites in support of Southern Pacific Transportation Co. involvement with the I-880 freeway replacement project.

Harding Lawson Associates - Staff Geologist– 1994

Supervised the installation of temporary well points and the collection of Hydro-Punch grab groundwater samples in support of groundwater characterization at the Hunter's Point Naval Shipyard Superfund site.

Golder Associates Inc. - Staff Geologist– 1993

Served as technical lead to monitor quality control of clay liner construction for a new cell at Kirby Canyon Landfill, Morgan Hill, California. To support the slope stability study of a failed embankment during the construction of a new cell at Altamont Landfill, assisted in logging trenches, oversaw the installation of pressure transducer piezometers and evaluated joint orientation using the DIPs software. As a technician, monitored quality control for construction of clay liner, HDPE/geotextile membranes and leachate collection system.

Harding Lawson Associates - Staff Geologist– 1991-1992

Supervised drilling crews advancing soil borings and installing monitoring wells, collected samples and logged soil cuttings to characterize soil and groundwater as part of the Fort Ord Super Fund site remedial investigation. Constituents of concern at various sites included petroleum compounds, VOCs, SVOCs, pesticides and explosives. All work was conducted under CERCLA regulation with oversight by local, state, and federal agencies.

Earth Systems Consultants - Staff Geologist– 1989-1991

Provided field technical assistance in evaluating geologic hazards for residential development or to secure FEMA funding for damaged residents following the Loma Prieta earthquake in the South Bay Area, South Santa Clara Valley and the Santa Cruz Mountains. Served as field technical lead and prepared reports for foundation and pavement design investigations.

Energylog – Well Site Geologist– 1988-1989

While drilling for either geothermal or natural gas energy resources, produced a record or "mudlog" of lithology, physical parameters, and gas concentration, versus depth drilled to aid further exploration. Performed chemical abatement of hydrogen sulfide gas produced during geothermal drilling operations when emissions exceeded regulatory thresholds. Project locations included the Geysers (Lake County), Northern Sacramento Valley and Coso Junction in California, and Kyushu, Japan.

Eileen Allen

ENERGY EXPERT

PROFILE: Ms. Allen has extensive experience addressing the environmental impacts and benefits of renewable energy facilities in California as well as conventional fossil fuel facilities. She also has many years of dealing with existing and proposed transmission lines in California and the broader western states region.

EDUCATION:

- MA, Urban Planning, University of California, Los Angeles, 1979
- AB Rhetoric, University of California, Berkeley, 1977

PROFESSIONAL EXPERIENCE

For Aspen Environmental Group, Ms. Allen has been a consultant to the California Energy Commission, local governments, and a private energy project developer. She serves as a co-senior supervisor in Aspen's Planning and Public Policy Group. She has supervised staff addressing the Socioeconomic, Population & Housing, Traffic & Transportation, and Land Use impacts of proposed energy facilities (e.g., back up generation at data storage centers, battery energy storage, wind and solar energy facilities).

REPRESENTATIVE EXPERIENCE

CALIFORNIA ENERGY COMMISSION (1987-2018)

- Retired Annuitant (in 2018) representing Commission on panel evaluating Proposition 1 desalination project proposals for CA Dept. of Water Resources; natural gas power plant retirement analysis
- Energy Commissioners' Advisor for Facility Siting regarding environmental & engineering impacts of large, thermal electric power plants, including air quality, biological and cultural resources, and water supply and quality
- Policy Advisor to Chair Weisenmiller regarding generation and transmission facility siting
- Manager of Siting & Compliance Office directing California Environmental Quality Act (CEQA) lead agency staff analyses of proposed electric power plants & related facilities including water supply (i.e., alternatives to surface or groundwater use) and water quality assessments
- Directing staff work on Amendments to Conditions of Certification including compliance oversight of facility construction and operation
- Negotiation with developers/owners re project changes and impact mitigation measures
- Siting Program Manager directing project managers leading multi-disciplinary, environmental staff teams

  Evidentiary hearing expert witness testimony

ENVIROSPHERE COMPANY (1985-1987)

Analysis of local/regional land use impacts of the California-Oregon Transmission Project (COTP); co-author of COTP Draft Environmental Impact Statement/Draft Environment/Draft Environmental Impact Report (DEIS/DEIR)

CALIFORNIA DEPARTMENT OF CONSERVATION (1981-1985)

- Acting Program Manager, Farmland Mapping & Monitoring Program
- Presentations to forty County Boards of Supervisors; conducting public workshops on draft county farmland maps

Brewster Birdsall

SENIOR ASSOCIATE, AIR QUALITY AND ENGINEERING

Aspen environmental group

PROFILE: Mr. Birdsall is an engineer and environmental scientist who specializes in analyses of air quality and greenhouse gas (GHG) emissions with extensive experience in the areas of energy facility siting and infrastructure planning, permitting, analysis, and special studies. He has over 25 years of consulting experience focusing on climate change, air resources, and air quality and noise-impact modeling, and assessment under the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and the Clean Air Act. He occasionally serves as project manager for environmental documents addressing unique or complex energy and planning issues.

EDUCATION:

- MS, Civil Engineering, Colorado State University, 1993
- BS with High Honors, Mechanical Engineering, Lehigh University, 1991

PROFESSIONAL EXPERIENCE

SITING CASES – REVIEW OF APPLICATIONS TO CONSTRUCT POWER PLANTS

California Energy Commission, 2001-present

Mr. Birdsall assists the California Energy Commission (CEC) as a technical specialist by reviewing and providing testimony on Applications for Certification (AFC) for new power plants throughout California, including natural gas-fired, solar, and geothermal facilities and installations of standby backup generators. This work addresses the potential effects of new power plants on overall electricity system operation, achieving California's GHG goals, avoiding deterioration of air resources, and offsetting air pollutant emissions.

- Fountain Wind (2023-2024). Air quality, public health, and GHG assessment for 205 MW of wind generation.
- Martin Backup Generating Facility (2023). Air quality and GHG assessment of standby backup generators.
- CA3 Backup Generating Facility (2021-2022). Air quality and GHG assessment of standby backup generators.
- San Jose City Data Center (2019-2022). Air quality and GHG assessment of standby backup generators.
- Sequoia Data Center (2019-2020). Air quality and GHG assessment of standby backup generators.
- Mission College Data Center (2019-2020). Air quality and GHG assessment of standby backup generators.
- Walsh Data Center (2019-2020). Air quality and GHG assessment of standby backup generators.
- Laurelwood Data Center (2019). Air quality and GHG assessment of standby backup generators.
- Humboldt Bay Generating Station (2016-2018). Air quality review of changes in diesel fuel firing.

TECHNICAL STUDIES AND CONSULTANT REPORTS

California Energy Commission, 2002-present

Mr. Birdsall authors and edits special studies on energy issues.

- Transmission Corridor Evaluation, Humboldt Wind Area (2024). Co-author for high-level study of onshore transmission corridors to access wind energy in federal waters offshore of Humboldt County.
- Planning Support Contract: Siting, Transmission, and Environmental Protection Division (2022-present). Mr. Birdsall is a technical lead in studies mandated by Assembly Bill 525 (2021) related to assessment of the electric transmission system and renewable energy planning services. Mr. Birdsall provides support for preparation of the AB 525 Strategic Plan for Offshore Wind and the transmission investments and upgrades necessary to meet offshore wind planning goals, including potential subsea transmission options.

- Energy Systems Planning: Siting, Transmission, and Environmental Protection Division (2016-2018). For the Strategic Transmission Planning Office, Mr. Birdsall provided deputy program management, engineering support, and technical assistance for energy facility and infrastructure planning, including technical support for the RETI 2.0 process.
- Transmission Options in Southern California (2013-2015). Prepared an environmental feasibility study for electric transmission options and potential corridor designations from Imperial County and Riverside County to Orange County and San Diego in response to closure of San Onofre Nuclear Generating Station (SONGS). Documented potential overland transmission line corridors and the feasibility of building offshore submarine high voltage direct current (HVDC) cable corridors in the Pacific Ocean to connect the Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E) electrical transmission systems.
- Biomethane Additionality Study (2012). Developed comparisons of landfill gas, digester gas, and other biogas emission factors in various applications as an alternative to pipeline quality gas.
- California Credit Policies: Lowering the Effective Cost of Capital for Generation Projects (2006). Prepared workshop report exploring policy options for transforming power procurement and credit policies to encourage power plant development in California and manage the risk of project failure.

PREVIOUS EMPLOYMENT

EIP Associates (1998-2001). As a Senior Environmental Scientist at EIP Associates, Mr. Birdsall performed comprehensive analyses of air quality and noise impacts for Environmental Impact Reports/Statements and independent studies.

Trinity Consultants (1994-1998). Mr. Birdsall prepared compliance strategies, evaluated modeled impacts, and negotiated air permits while a Project Supervisor at Trinity Consultants, an environmental firm specializing in air quality. Mr. Birdsall advised clients in the industries of municipal solid waste landfills and landfill gas to energy, independent power production, open-pit metallic mineral mining, major natural gas pipelines, and upstream natural gas processing.

PROFESSIONAL AFFILIATIONS AND AWARDS

- Professional Engineer (Mechanical, California #32565)
- Qualified Environmental Professional (QEP), Board for Global EHS Credentialing (#03030005)
- Panelist, Offsets for Environmental Mitigation, Navigating the American Carbon World 2014
- 2001 Outstanding Performance Award presented by the California Energy Commission
- Air and Waste Management Association since 1994
- Tau Beta Pi, National Engineering Honor Society

Jon Davidson

SENIOR PROJECT MANAGER

Aspen environmental group

PROFILE: Jon Davidson is an environmental professional with more than 35 years of experience in providing consulting services to government agencies. Mr. Davidson has managed or had a major role in the preparation of more than 140 EIRs, EISs, and EAs, and has prepared over 30 plans and planning studies. He has a diverse background in land use planning, environmental review, technical writing, public presentation, and project management.

EDUCATION:

- Master of Urban and Regional Planning, California State Polytechnic University, Pomona, 1985
- BA, Urban Planning, University of Washington, 1981

PROFESSIONAL EXPERIENCE

STRAUSS WIND ENERGY PROJECT

County of Santa Barbara

Project manager for the preparation of an EIR for wind energy project on the coast near the City of Lompoc and Vandenberg Air Force Base. This 102-MW project includes 30 wind turbine generators (WTGs) located on 2,970 acres, comprised of 11 properties. The WTGs ranged up to 492 feet in height. The project also includes a 7.3-mile, 115-kV transmission; 1-acre substation; 1.4-acre switchyard; and operations & maintenance building.

SAN ONOFORE NUCLEAR GENERATING SYSTEM (SONGS) DECOMMISSIONINIG PROJECT EIR

California State Lands Commission

EIR project manager for the decontamination and demolition of the SONGS on the northern San Diego County coast, including removal of offshore intake and discharge conduits. Demolition waste and low-level radioactive waste will be hauled to out-of-state disposal facilities and high-level radioactive waste will be stored on site until a waste repository is identified by the federal government.

TEHACHAPI RENERWABLE TRANSMISION PROJECT

California Public Utilities Commission and USDA Forest Service

Project manager for the preparation of an EIR/EIS for the California Public Utilities Commission (CPUC) and USDA Forest Service for an extensive series of transmission system upgrades spanning Kern, Los Angeles, and San Bernardino Counties. These upgrades will increase transmission system capacity and reliability in order to allow wind energy generated in the Tehachapi area to be delivered to California load centers.

OCTILLO WIND ENERGY FACILITY

County of Imperial

Project manager for the preparation of an EIS/EIR for the Bureau of Land Management and the County of Imperial for a 465-MW wind energy project near the town of Ocotillo. The project is spread across a 12,400-acre site and consists of the installation of 155 wind turbine generators and construction of a substation.

TRANSPACIFIC FIBER-OPTIC CABLES PROJECT

City of Hermosa Beach

Project manager for preparation of an EIR for installation of four fiber-optic telecommunications crossing the Pacific Ocean, including onshore facilities in California. Onshore facilities include cable landing sites, power feed

equipment facilities, and terrestrial fiber-optic cable. The four cables are planned to land in Hermosa Beach, California, and are planned connect the Los Angeles area with Southeast Asia, China, Japan, and Australia.

COOLWATER-LUJO TRANSMISSION PROJECT
California Public Utilities Commission

Project manager for the preparation of an EIS/EIR for a 64-mile transmission line traversing remote desert lands administered by the BLM, as well as populated areas in Hesperia, Apple Valley, and Lucerne Valley. Due to changes in circumstances affecting project need, the project was cancelled before the EIR/EIS process was completed.

ANTELOPE-PARDEE 500-KV TRANSMISSION PROJECT
California Public Utilities Commission

Project manager for the preparation of an EIR/EIS for the CPUC and USDA Forest Service for a 25.6-mile 500-kV transmission line proposed by Southern California Edison to serve wind power projects in the Tehachapi area in Kern County and Antelope Valley in Los Angeles County.

ANTELOPE TRANSMISSION PROJECT, SEGMENTS 2 AND 3
California Public Utilities Commission

Project manager for the preparation of an EIR for the CPUC for a new transmission line project. The project includes 46.6 miles of 500-kV line, 9.6 miles of 220-kV line, and two new substations. The project is proposed by Southern California Edison to serve future wind energy projects in the Tehachapi and Mojave areas of Kern County.

SANTA CLARA RIVER LEVEE (SCR-3) IMPROVEMENTS
Ventura County Watershed Protection District

Project manager for the preparation of an EIR for improvements to an existing levee and construction of a floodwall along a two-mile stretch of the Santa Clara River in Oxnard. Aspen conducted biological surveys and jurisdictional delineations for the project, and also prepared applications for the Clean Water Act and California Fish and Game Code permits.

MISCELLANIOUS ENVIRONMENTAL SERVICES CONTRACTS
U.S. Army Corps of Engineers

Program Manager for three consecutive multi-year environmental services contracts with the Corps' Los Angeles District. He also manages environmental impact analyses for flood control, riparian restoration, and water resources projects:

- Matilija Dam Ecosystem Restoration Project EIS/EIR. Project manager for an EIS/EIR to support a feasibility study for the removal of Matilija Dam on Matilija Creek, a tributary of the Ventura River. The feasibility study evaluated alternatives for removing the dam to allow passage for steelhead trout and allow sediment to move downstream to replenish sand on area beaches. Aspen also prepared vegetation mapping for the Ventura River corridor and Matilija Creek through aerial photo interpretation and field surveys. Aspen supported the project's Environmental Working Group in evaluating the quality of existing habitat and projecting habitat conditions under a future without-project scenario.
- Prado Basin Final Supplemental EIS/EIR. Project manager for the Final Supplemental EIS/EIR for the Prado Dam, Norco Bluffs, and Reach 9 components of the Santa Ana River Mainstem Project — a major project to provide flood protection for Orange, Riverside, and San Bernardino Counties. The components addressed in the SEIS/EIR included improvements to Prado Dam and Prado Basin in order to increase the capacity of the Basin, channel improvements downstream to accommodate increased releases from the dam, and toe stabilization along the banks of the river at Norco Bluffs. Aspen also provided support to the Corps in their consultation with the US Fish and Wildlife Service pursuant to the Endangered Species Act.

- Rio Salado Environmental Restoration Project EIS. Project manager for an EIS for the restoration of the Salt River in the Cities of Phoenix and Tempe, Arizona. The project involves the re-introduction of flows to a five-mile stretch of the river near downtown Phoenix and three river segments adjacent to Town Lake in Tempe. Native vegetation will be planted within the river bottom and along the riverbanks to re-establish natural habitat.
- Whitewater River Basin (Thousand Palms) Flood Control Project EIS/EIR. Project manager for an EIS/EIR for a flood control project in the Thousand Palms area of the Coachella Valley. The flood control improvements have been designed to avoid impacts on sensitive natural habitats in the area, while also protecting these habitats from the destructive effects of flooding. Of particular concern is the endangered Coachella Valley fringe-toed lizard which relies on sediment deposited by flood flows and distributed by local winds to replenish its habitat.
- Tucson (Ajo) Detention Basin Ecosystem Restoration Report. Project manager a plan for the restoration of wildlife habitat at the Ajo Detention Basin in Pima County, Arizona, near the City of Tucson. The basin is being modified to incorporate a small lake, riparian habitat, and recreational uses. Aspen prepared a plan for habitat in the Basin that provides guidance for vegetation planting, stream and marsh design, wildlife features, and maintenance.
- San Antonio Creek Erosion Repair EAs. Project manager for two environmental assessments for erosion repair projects at five locations along San Antonio Creek at Vandenberg Air Force Base. Key issues addressed are cultural, biological, and visual concerns. The assignment also involves the preparation of environmental restoration plans for each site and the implementation of each restoration project.
- Los Angeles River Improvement Project. Project manager for preparation of an environmental assessment associated with increasing the capacity of the Los Angeles River by raising levees and floodwalls. The EA addressed design modifications to the segment between Whittier Dam and the confluence with the Rio Hondo Channel.
- Santa Cruz River Watershed Management Plan. Project manager for the preparation of a management plan covering environmental and cultural issues along 65 miles of the Santa Cruz River in Pima County, Arizona.

ENVIRONMENTAL ASSESSMENT SERVICES CONTRACT

Los Angeles Department of Water and Power

Program Manager for two multi-year contracts to provide CEQA/NEPA compliance, biological surveys, environmental permitting, and mitigation monitoring for LADWP water and power projects. In this role, he developed work programs and budgets for new task orders, made task order manager assignments, and oversaw the quality of products and services to LADWP, which is the largest municipal utility agency in the United States. Under these contracts, Aspen completed 41 task orders.

ENVIRONMENTAL AND TECHNICAL SUPPORT SERVICES FOR SOUTHERN REGION PROJECTS

California Department of Water and Power

Deputy Program Manager for this contract to provide on-call environmental assessment, compliance, and monitoring services for projects associated with the State Water Project in southern California. In this role, he developed work programs and budgets for new task orders, made task order manager assignments, and oversaw the quality of products and services to DWR.

MONTERY ACCELERATED REWSEARCH SYSTEM (MARS) CABLED OBSERVATORY

California State Lands Commission

Project manager for the preparation of an EIR/EIS for the California State Lands Commission and the Monterey Bay National Marine Sanctuary that analyzed a proposal to install an advanced undersea cabled observatory in Monterey Bay that will provide researchers with long-term, real-time data access to deep-sea benthic communities and ocean processes. The project consists of a science node located on the sea floor 51 km off the

coast of Monterey Bay connected to shore by a cable to provide electricity to power undersea experiments and a fiber-optic cable to transmit data.

TEHACHAPI EAST AFTERBAY

California Department of Water Resources

Project manager for the preparation of an EIR for the Department of Water Resources for a project to construct and operate a storage reservoir (afterbay) on the East Branch of the California Aqueduct. The new afterbay provides 1,159 acre-feet of additional operational storage that allows downstream facilities on the East Branch and, to a lesser extent, the West Branch to operate for short periods without relying on the pumping operations of the Valley String Pumping Plants. The project reduces pumping during peak electrical demand periods and provides increased operational flexibility.

SAN ONOFRE NUCLEAR GENERATING STATION (SONGS) STEAM GENERATOR REPLACMENT PROJECT

California Public Utilities Commission

Project manager for the preparation of an EIR for the CPUC for a project to replace the steam generators at SONGS Units 2 and 3. The original steam generators needed to be replaced because they were degraded from stress and corrosion cracking. The replacement steam generators arrived by barge at Camp Pendleton's Del Mar Boat Basin and were transported 15 miles overland to SONGS using prime movers. The original steam generators were transported by rail to a licensed low-level radioactive waste disposal facility for long-term storage. The EIR was prepared in close coordination with an EIR prepared by Aspen for steam generator replacement at Diablo Canyon Power Plant.

NEWHALL RANCH CEQA CONSULTATION SERVICES

California Department of Fish and Wildlife

Under contract to the California Department of Fish and Wildlife (CDFW), Mr. Davidson assisted the CDFW and Corps of Engineers in the preparation of an EIR/EIS for a master Streambed Alteration Agreement, Section 404 Permit, and Section 2081 Take Permit for the Newhall Ranch Specific Plan. The Specific Plan, approved by Los Angeles County in 2003, allows the construction of 20,885 homes on 11,963 acres in northwestern Los Angeles County near the City of Santa Clarita. CDFW contracted with Aspen for assistance in administering the EIR process and to provide expert technical review services for all issue areas.

EIR FOR THE DIVESTITURE OF PG&E'S HYFROELECTIC GENERATION ASSETS

California Public Utilities Commission

Land Use issue manager for the CPUC's EIR evaluating the Pacific Gas & Electric Company's proposal to divest their hydroelectric facilities in California. Situated in the Sierra Nevada, Southern Cascade, and Coastal Mountain ranges, this system is spread across 16 river basins and annually generates approximately five percent of the power consumed each year in California. The proposed sale of assets also included approximately 140,000 acres of land with the hydroelectric system. The EIR analyzed the range of operational changes that could occur under new ownership, including complex integrated models that analyze power generation and water management.

TECHNICAL ASSISTANCE TO THE CALIFORNIA ENERGY COMMISSION IN APPLICATION FOR CERTIFICATION REVIEW

California Energy Commission

As part of Aspen's on-call contract with the California Energy Commission, Mr. Davidson has served as an expert technical specialist in the analysis of land use and socioeconomics for new power plant projects. In addition, Mr. Davidson served as project manager for the preparation of two studies for the Energy Commission: Coastal Power Plant Study and Hydroelectric Power Plant Inventory.

DIGITAL 395 MIDDLE MILE PROJECT
California Public Utilities Commission

Project manager for the provision of CEQA review and support services to the CPUC for the installation of approximately 593 miles of fiber-optic cable and associated infrastructure to provide broadband service in unserved and underserved areas of the Eastern Sierra Nevada region, with a proposed service area encompassing 36 communities, 7 Native American reservations, and 2 military bases. Aspen provided CEQA advice during the development of the environmental analysis, reviewed a CEQA Initial Study and NEPA Environmental Assessment prepared for the project by the proponent, prepared a Mitigated Negative Declaration, and assisted the CPUC with public noticing.

BOLSA CHICA DOMESTIC WATER TRANSMISSION LINE AND WASTEWATER SERVICE PROJECT
California Public Utilities Commission

Project manager for the preparation of an EIR for the CPUC for an application to construct and operate a 6.7-mile water transmission line in western Orange County to supply domestic water to the Bolsa Chica Planned Community, a proposed residential development project on Bolsa Chica Mesa.

VIEJO SYTEM PROJECT
California Public Utilities Commission

Project manager for the preparation of an Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring Program for the CPUC for a new 220/66/12-kV substation and 3.1-mile 66-kV subtransmission line proposed by Southern California Edison in south Orange County. The proposed subtransmission line traverses residential and recreational areas in the City of Mission Viejo and the proposed substation would be located in a business park adjacent to a wilderness area in the City of Lake Forest.

ENVIRONMENTAL SERVICES CONTRACT FOR 50-200KV TRANSMISSION LINES AND SUBSTATIONS
California Public Utilities Commission

Under this three-year contract to provide environmental services for the CEQA analysis of applicable facilities proposed in the Southern California Edison region, Mr. Davidson served as Project Manager for the following projects: Six Flags Power Line and Substation Project and Valley-Auld Power Line Project.

YELLOWSTONE PIPELINE REROUTE EIS
USDA Forest Service

Performed critical review and technical editing of Specialist Reports covering Socioeconomics, Public Services, and Minority and Low-Income Populations in western Montana and northern Idaho for a petroleum products pipeline and related facilities. He also prepared the sections of the EIS relating to these issue areas.

ENVIRONMENTAL DOCUMENT CONTRACT
Los Angeles Unified School District

Program manager for environmental services to the Los Angeles Unified School District. Aspen assisted the district in completing CEQA review for a major new school building program. Mr. Davidson also managed the preparation of environmental documents for several new school projects, including primary centers, elementary schools, and high schools. He supervised overall services to the district and oversaw other Aspen project managers.

EAST VALLEY NEW HIGH SCHOOL NO. 18
Los Angeles Unified School District

Project manager for the preparation of an EIR for the Los Angeles Unified School District for a new high school on a 10-acre site in North Hollywood. The new school helped alleviate overcrowding at other area high schools

and allowed students to attend school in their own neighborhood. The campus also includes a continuation high school.

ENVIRONEMNTAL BASELINE SURVEY AND PHYSICAL CONDITIONS REPORT

Space Launch Complex and Vandenburg Air Force Base

Project manager for a Phase I investigation of physical and environmental conditions at SLC-6 prior to The Boeing Company entering into a lease agreement with the Air Force for commercial launches at the facility.

PROFESSIONAL AFFILIATIONS

- American Planning Association
- Association of Environmental Professionals

PREVIOUS EXPERIENCE

- EIP Associates (1993-1996). At EIP Associates, Mr. Davidson was a senior project manager for the preparation of EIRs. Some of these projects are listed below.
  - Santa Barbara Long-Term Water Supply Plan and Seawater Desalination Facility EIR
  - San Sevaine Redevelopment Project EIR
  - City of Pasadena Land Use & Mobility Elements EIR
  - City of Irvine Comprehensive General Plan Update (Phase 2) Master EIR
  - Cajon Pipeline EIR/EIS and Technical Studies
  - California Speedway EIR
- Willdan Associates (1984-1993 and 1996-1997). Mr. Davidson advanced from Assistant Planner to Principal Planner while at Willdan Associates. He worked on urban planning projects for municipal agencies and also prepared numerous EIRs.
  - City of Santa Monica, Local Coastal Program
  - Colorado River Water Allocation EAs
  - Grove Avenue Corridor Specific Plan EIR
  - City of Irvine Conservation and Open Space Element Revision EIR
  - Mojave River Corridor Land Use Study
  - Jungleland Specific Plan and EIR
- From 1982 to 1984, Mr. Davidson worked at Urban Futures, Incorporated, where he assisted in redevelopment plan formulation and the preparation of planning studies and EIRs. In 1981, Mr. Davidson worked as an intern with the City of Seattle's Office of Neighborhood Planning.

Selected Experience

Engineering Geologist (since 2024)

Geo Sciences Unit, Siting, Transmission, and Environmental Planning Division, California Energy Commission

- Evaluate the geologic hazards that may impact, and the geological, paleontological, and mineral resources that may be impacted by, the construction of new power plants and energy storage projects in California.

Engineering Geologist (2024-2015)

Instream Flow Unit, Division of Water Rights, State Water Resources Control Board, CalEPA

- Watershed science and modeling, outreach, and long-term and emergency flow policy to protect endangered fish.
- Division of Water Rights lead for Ventura River Watershed, Ventura County, CA (2024-2016)
  - Contract manager and technical lead of $2.4 million contract to develop GSFLOW and MT3D-USGS models.
  - Contributing author, and lead technical and accessibility editor, for eight (8) reports, including study plans, geologic analyses, data compilations, and calibration results. Skilled in MS Office and Adobe Acrobat.
  - Organized and evaluated hundreds of boring logs for conceptual geologic model of Upper Ojai, Upper Ventura, and Lower Ventura groundwater basins. Reviewed geologic analysis reports.
  - Managed compilation, QA/QC, and analyses of geology, hydrology, water demand, ecology, and land use datasets in ArcGIS and MS Excel. Compiled datasets and prepared maps in ArcGIS and Illustrator.
  - Executed rigorous outreach plan with seven comment periods. Formed technical advisory committee of local experts.
  - Solved technical and contract management problems while adapting to wildfire, pandemic, and litigation.
  - Lead technical reviewer and comment author of four (4) SGMA Groundwater Sustainability Plans.
  - For litigation mediation, helped write flow policy to protect endangered fish. Briefed State Water Board Chair and Members, executive office, and attorneys.
- Scott River and Shasta River Drought Emergency Regulations, Siskiyou County, CA (2024-2021)
  - Contributing author and lead technical editor for scientific digest and emergency regulation to protect endangered fish on two tributaries to the Klamath River. Wrote geology sections.
  - Designed and led implementation of groundwater local cooperative solution program.
  - Managed and organized drought voicemail and inbox hotlines. Resolved hundreds of calls.
- Other Responsibilities:
  - Acting supervisor of the Instream Flow Unit.
  - Led and trained streamflow gaging crews in South Fork Eel River and Mark West Creek watersheds.
  - Organized unit-wide ArcGIS geodatabases. Trained staff on ArcGIS.

M.S. Graduate Student and Teaching Assistant: Structural Geology and Mapping (2015-2013)

Dept. of Geological Sciences, Central Washington University (CWU)

- Published new detailed geologic mapping, structural studies, and AR^{40}/AR^{39} geochronology of the Black Mountain area, River Springs area, and Volcanic Tableland that constrained the geometry, kinematics, and rates of active faulting in the transition between the eastern CA shear zone and Mina deflection.
- Combined field investigations, ArcGIS, and Illustrator, to complete 1:12000 scale geologic mapping of Pliocene to Quaternary normal faults, igneous rocks, and alluvial deposits of the ~93km^2 Black Mountain area and 1:12000 scale lidar mapping of Quaternary normal faults exposed in the Pleistocene Bishop Tuff of the Volcanic Tableland.
- In Illustrator, drafted present-day and palinspastically restored cross-sections and calculated ~0.5 mm/yr of horizontal extension across the Black Mountain area.
- Drafted composite stratigraphic column that unified the stratigraphy (Mesozoic plutonic basement, Miocene to Pleistocene volcanic rocks) of the Black Mountain and River Springs area.
- Led two-month expedition for data collection in eastern California shear zone.
- Taught undergraduate geology and STEM courses in the field and lab.

Student Engineering Aid (2013-2012)

Office (now Division) of Mine Reclamation, CA Dept. of Conservation

- In ArcGIS, digitized and analyzed 350 mine reclamation plans. Drafted maps for inspections and reports.
- Led office-wide ArcGIS procedure and database upgrade. Trained staff on ArcGIS.

B.S. Senior Thesis: Alaskan Tectonics (2012-2011)

Dept. of Earth and Planetary Sciences, UC Davis

- Collected slickenline data for structural studies of the Denali fault.
- Fixed and rotor-wing supported fieldwork in the Alaskan wilderness.
- Taught undergraduate geology in the field and lab.

NASA Planetary Geology and Geophysics Undergraduate Intern (2010)

Laboratory for Atmospheric and Space Physics, University of Colorado, Boulder

- In ArcGIS and MS Excel, mapped and evaluated intracrater sediments bordering theorized ancient Martian ocean.

Selected Short Courses

Borehole geophysics (2020) • United soil classification system (2015) • Tripod mounted lidar surveying (2014)

Selected Publications

Author:

K. DeLano, J. Lee, R. Roper, A. Calvert. 2019. *Dextral, normal, and sinistral faulting across the eastern California shear zone–Mina deflection transition, California-Nevada, USA.* Geosphere; 15 (4): 1206–1239. June 2019.

K. DeLano, B. Hynek. *Intracrater Layered Deposits Support Ancient Ocean on Mars [abstract]*. In: Proceedings of the 42nd the Lunar and Planetary Science Conference; 2011 Mar 7-10; The Woodlands, TX. Abstract nr 2636.

Contributing Author, Lead Technical and Accessibility Editor:

Geosyntec Consultants and Daniel B. Stephens & Associates. 2024. *Groundwater-Surface Water Model and Model Documentation Report of the Ventura River Watershed.* Prepared for State Water Resources Control Board and Los Angeles Regional Water Quality Control Board. June 2024.

State Water Resources Control Board. 2024. *Proposed Scott River and Shasta River Watersheds Emergency Regulation: Finding of Emergency and Informative Digest.* California Environmental Protection Agency: State Water Resources Control Board: Division of Water Rights. January 2024.

Education

M.S., Geology, Central Washington University (2015) — Summa Cum Laude, GPA: 3.88

B.S., Geology, University of California, Davis (2012) — Cum Laude, GPA: 3.558, History Minor

Selected Certifications and Awards

- Professional Geologist #10178 (since 2023) – CA Board of Professional Engineers, Land Surveyors, and Geologists
- Vice President (Rank and File) for Collective Bargaining (since 2023) – River City Chapter, PECG
- Superior Accomplishment Award (2022) – State Water Resources Control Board
- Honorable Mention - Best Graduate Student Geologic Map Competition (2016) – Cordilleran Section Meeting, Geological Society of America
- Graduate Scholar of the Year (2015) – Symposium of University Research and Creative Expression – CWU
- Teaching Assistant of the Year (2013-2014) – Dept. of Geological Sciences, CWU
- Graduate Student ASLM Seed Proposal (2014) – National Center for Airborne Laser Mapping

Lauren DeOliveira

CULTURAL RESOURCE SPECIALIST

PROFILE: Lauren DeOliveira has more than 14 years of academic and professional experience in research and archaeological fieldwork in southern California. She has 12 years of both supervisory and project management experience encompassing all phases of archaeological investigations, including compliance with CEQA, NEPA, Section 106 and Section 110 of the NHPA, and AB 52 Tribal consultations. Ms. DeOliveira is a Registered Professional Archaeologist and a BLM Permitted Principal Investigator for the state of the California and southern Nevada, with experience working on CA State Park Land. She currently oversees Aspen's cultural resources team, including all tasks related to paleontology.

EDUCATION:

- MS, Geographic Information Science, California State University Northridge, 2018
- BA, Liberal Studies, Emphasis on Archaeology, California State University Channel Islands, 2010

PROFESSIONAL EXPERIENCE

CAMP PENDLETON PROJECT

California Energy Commission; 2024

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for coordinating and overseeing cultural record search, survey of the project area, recordation and evaluation of identified resources, assisting the CEC with AB-52 Tribal Consultation, and CEQA document analysis. The CEQA document was prepared in order for an applicant to receive grant funding from CEC to build a battery energy storage system on Camp Pendleton.

VALLEY CHILDREN'S HOSPITAL PROJECT

California Energy Commission; 2024

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for coordinating and overseeing cultural record search, survey of the project area, recordation and evaluation of identified resources, assisting the CEC with AB-52 Tribal Consultation, and CEQA document analysis. The CEQA document was prepared in order for an applicant to receive grant funding from CEC to build a battery energy storage system.

EAST ROAD STORAGE PROJECT

California Energy Commission; 2023

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for coordinating and overseeing cultural record search, survey of the project area, recordation and evaluation of identified resources, assisting the CEC with AB-52 Tribal Consultation, and CEQA document analysis. The CEQA document was prepared in order for an applicant to receive grant funding from CEC to build a multi-day energy storage system.

HAYSTACK SPPE PROJECT

California Energy Commission; 2024

Ms. DeOliveira serves as archaeological lead and project manager for this project and was responsible for reviewing applicant technical reports and materials for adequacy and assisting the CEC in preparation of an EIR for a small power plant exemption (back up generation system) project located in Hayward, CA.

MICROSOFT SJ04 SPPE PROJECT
California Energy Commission; 2023-present

Ms. DeOliveira serves as archaeological lead and project manager for this project and was responsible for reviewing applicant technical reports and materials for adequacy and assisting the CEC in preparation of an EIR for a small power plant exemption (back up generation system) project located in Santa Jose, CA.

STACK SPPE PROJECT
California Energy Commission; 2022

Ms. DeOliveira serves as archaeological lead and project manager for this project and was responsible for reviewing applicant technical reports and materials for adequacy and assisting the CEC in preparation of an EIR for a small power plant exemption (back up generation system) project located in Santa Clara, CA.

AVAIO SPPE PROJECT
California Energy Commission; present

Ms. DeOliveira serves as archaeological lead and project manager for this project and was responsible for reviewing applicant technical reports and materials for adequacy and assisting the CEC in preparation of an EIR for a small power plant exemption (back up generation system) project located in Pittsburg, CA.

FOUNTAIN WIND OPT-IN PROJECT
California Energy Commission; present

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for reviewing applicant technical reports and materials for adequacy and assisting the CEC in preparation of an EIR for wind farm proposed in Shasta County. This is part of CEC's new Opt-In process.

COMPASS BESS OPT-IN PROJECT
California Energy Commission; present

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for reviewing applicant technical reports and materials for adequacy and assisting the CEC in preparation of an EIR for battery energy storage project proposed in Orange County. This is part of CEC's new Opt-In process.

SODA MOUNTAIN SOLAR OPT-IN PROJECT
California Energy Commission; present

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for reviewing applicant technical reports and materials for adequacy and assisting the CEC in preparation of an EIR for solar farm proposed in the Mojave. This is part of CEC's new Opt-In process.

ALONDRA STORMWATER CAPTURE PROJECT
Los Angeles County Department of Public Works; 2023-Present

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for coordinating and overseeing all cultural monitors and the implementation of any mitigation measures for a stormwater capture project is Lawndale, CA, including final reporting.

LINE 1 TRANMISSION LINE REBUILD PROJECT
Los Angeles Department of Water and Power; 2023-Present

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for coordinating and overseeing all cultural monitors and the implementation of any mitigation measures for a this transmission line rebuild project, including final reporting. The project crosses over in to federal land (USFS and BLM) and private lands.

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT ENHANCED RECHARGE FACILITIES PROJECT
San Bernardino Municipal Water District 2023-Present

Ms. DeOliveira serves as archaeological lead and project manager for this project and is responsible for coordinating and overseeing all cultural monitors and the implementation of any mitigation measures for a new levee system, including final reporting.

SIX NEW TRAILS PROJECT
BLM and Coachella Valley Conservancy., 2023-2024

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating and overseeing all surveys of proposed six new hiking trails that cross over into CA State Park land, BLM land, and private land in the Coachella Valley, including authoring final reporting and resource evaluations.

GASKELL WEST SOLAR PROJECT
Rosendin Inc., 2022

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating and overseeing all cultural monitors and the implementation of any mitigation measures for a solar project is Rosamond, CA, including final reporting.

VARIOUS STORMWATER CAPTURE PROJECTS
Los Angeles County Department of Public Works, Present

Ms. DeOliveira serves as archaeological lead for various stormwater capture projects throughout Los Angeles County. Main tasks include coordinating the record search, pedestrian field survey, and technical reporting for each project and preparing applicable CEQA Addendums.

STOCK POND RESTORATION PROJECT
Contra Costa Resource Conservation District, Present

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating the record search, pedestrian field survey, and technical reporting for the project located Contra Costa County.

WASTE TO HYDROGEN FUEL PROJECT
City of Lancaster, Present

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating the record search, pedestrian field survey, and technical reporting for the project located within the City of Lancaster, CA.

PARKWAY VILLAGE PROJECT
City of Lancaster, Present

Ms. DeOliveira is responsible for finalizing a cultural technical report for the master plan EIR for the Parkway Village Project, located within the City of Lancaster, CA.

DIABLO CANTON NUCLEAR POWERPLANT DECOMISSIONING PROJECT
San Luis Obispo County, Present

Ms. DeOliveira serves as cultural lead for this project in San Luis Obispo County and is responsible for completing the EIR analysis for Cultural and Tribal Cultural Resources. Ms. DeOliveira is also assisting the county with AB-52 Tribal Consultation.

ECOLOGICAL RESTORATION PROJECT
Los Padres National Forest, present

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating the record search and pedestrian field survey for priority treatment areas within Los Padres National Forest. Ms. DeOliveira also serves as technical lead for the cultural resources section of the EA. This project is ongoing.

TPUD WRAP PROJECT
Trinity Public Utilities District and WAPA, present

Ms. DeOliveira serves as archaeological lead for this project and is responsible writing the cultural resources section of the EIR/EIS. This project is a large-scale vegetation management project in Trinity County. This project is ongoing.

SIX NEW TRAILS PROJECT
Coachella Valley Mountains Conservancy and Recreation Agency, 2023

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating the record search and pedestrian field survey for the incorporation six new hiking trails. These trails fall on land managed by CA State Parks, BLM, a private owners. Ms. DeOliveira also serves as the technical lead for cultural assessment report and the preparation of the CEQA/NEPA document sections.

MESA WIND REPOWER PROJECT/ALTA MESA WIND PROJECT
Brookfield Renewable Inc., 2022-2023

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating and overseeing the implementation of the cultural resources monitoring plans. These projects fall on land managed by BLM, Riverside County, and private owners.

THOUSAND PALMS FLOOD CONTROL PROJECT
Coachella Valley Water District and U.S Army Corps of Engineers, 2022

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating the record search and pedestrian field survey for newly added project areas and authoring supplemental reports that were reviewed by both Coachella Valley Water District and U.S. Army Corps of Engineers. Ms. DeOliveira also revised the cultural resources section of the EIR/EIS.

RIMFOREST STORM DRAIN PROJECT
San Bernardino County, 2021

Ms. DeOliveira serves as archaeological lead for this project and is responsible authoring a supplemental cultural resources record search report for San Bernardino County. This was a request made by the US Army Corps of Engineers to facilitate a 404 permit. The report was reviewed and approved by the U.S. Army Corps of Engineers, Los Angeles District.

CABALLERO CREEK PROJECT
Mountains Recreation and Conservation Authority, 2021

Ms. DeOliveira serves as archaeological lead for this project and is responsible for coordinating the record search and pedestrian field survey. Ms. DeOliveira also assisted Aspen's architectural historian in completing a built environment evaluation of Caballero Creek which was reviewed and approved by the U.S. Army Corps of Engineers, Los Angeles District.

NORCO BLUFFS PROJECT

U.S. Army Corps of Engineers, Los Angeles District, 2020

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating the pedestrian field survey and completing a technical report in support of the proposed Santa Ana River Mainstream Project in Riverside County.

MCCULLAGH TO VICTORVILLE TRANSMISSION LINE UPGRADE PROJECT

Los Angeles Department of Water and Power, present

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating the pedestrian field survey on BLM land and completing a technical report in support of the proposed project. This effort is to facilitate compliance with both CEQA and NEPA.

SAN GABRIEL TOWER PROJECT

Metropolitan Water District, present

Ms. DeOliveira served as technical lead for this project in Los Angeles County and was responsible for writing a cultural resources assessment report, including site evaluations under CEQA, in support of this project.

LOGANDALE TRAILS CLASS II CULTURAL RESOURCES PROJECT

Bureau of Land Management., 2021

Ms. DeOliveira served as cultural lead for this project and was responsible for completing the Section 106 compliant Class II in support of this project. The project included relocation of National Register eligible site to assess their condition after continued public use of off highway vehicle trails near Moapa Valley, Nevada.

LOGANDALE TRAILS ACCESS ROAD PROJECT

DJ&A, P.C., 2020

Ms. DeOliveira served as cultural lead for this project and was responsible for completing the Section 106 compliant cultural resources assessment report in support of this project. The proposed project is to widen and pave an access road with Valley of Fire State Park in Clark County, Nevada.

PARKER DAM TO BLYTHE 230 KV TRANSMISSION LINE SURVEY

Western Area Power Administration DSW, present

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating and overseeing the record search and archival research, pedestrian field surveys, authoring a technical Class I and Class III report which included National Register of Historic Places evaluations. This project is ongoing.

HEADGATE ROCK TO BLYTHE 230 KV TRANSMISSION LINE SURVEY

Western Area Power Administration DSW, present

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating and overseeing the record search and archival research, pedestrian field surveys, authoring a technical Class I and Class III report which included National Register of Historic Places evaluations. This project is ongoing.

HOOVER TO MEAD 230 KV TRANSMISSION LINE SURVEY

Western Area Power Administration DSW, present

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating and overseeing the record search and archival research, pedestrian field surveys, authoring a technical Class I and Class III report which included National Register of Historic Places evaluations. This project is ongoing.

KERN AND PIXLEY NWR AND ATWELL ISLAND PROJECT
Bureau of Reclamation, 2021

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating and overseeing pedestrian field surveys and completing a Class I and Class III technical report and National Register of Historic Places site evaluations.

STAGECOACH SOLAR PROJECT
California State Lands Commission, 2021

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating and overseeing supplemental pedestrian field surveys, completing a technical report, and completing the EIR analysis for Cultural and Tribal Cultural Resources.

SOUTH LAGUNA FUELS MODIFICATION PROJECT
City of Laguna Beach, 2021

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating the pedestrian field survey and completing the IS/MND analysis for Cultural and Tribal Cultural Resources.

ARICA-VICTORY PASS SOLAR PROJECT
Clearway Energy Group, LLC, 2021

Ms. DeOliveira serves as cultural lead for this project in Riverside County and is responsible for completing the EIR and EA analysis for Cultural and Tribal Cultural Resources.

COLORADO RIVER AQUEDUCT SIPHON PROTECTION PROJECT
Metropolitan Water District, 2020

Ms. DeOliveira served as technical lead for this project in Riverside County and was responsible for writing a cultural resources assessment report, including site evaluations under CEQA, in support of this project. The proposed project is to stabilize areas on the Colorado River Aqueduct to allow for continued maintenance.

LAUBER PROPERTY PROJECT
Mountain Recreation and Conservation Authority, 2020

Ms. DeOliveira serves as cultural lead for this project in Los Angeles County and is responsible for coordinating and executing the pedestrian field survey and completing a technical report in support of the proposed trail and access road construction.

WORLD OIL
Port of Long Beach, 2020

Ms. DeOliveira served as cultural lead for this project and was responsible for completing the cultural resources record search report in support of this project. The proposed project is to add two oil tanks within the Port of Long Beach.

NEW DOCK PROJECT
Port of Los Angeles, 2020

Ms. DeOliveira served as cultural lead for this project and was responsible for completing CEQA cultural and tribal cultural resources sections. The proposed project is to expand a chassis storage and maintenance yard within the Port of Los Angeles.

HIGHWAY 118 WIDENING PROJECT

Ventura County Public Works, 2020

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating and executing the pedestrian field survey and completing a technical report including site evaluations under CEQA, in support of the proposed project. The project proposes to widen a portion of the 118 highway to provide safe access to a wastewater treatment facility.

MATILIJA DAM REMOVAL PROJECT

Ventura County Public Works, present

Ms. DeOliveira serves as cultural lead for this project and is responsible for coordinating the historic resource evaluation of Matilija Dam and writing the EIR sections for Cultural and Tribal Cultural Resources.

CERTIFICATIONS

- Registered Professional Archaeologist (ID#17577)
- Certified Professional Archaeologist, City of Santa Barbara
- Certified Professional Archaeologist, City of Malibu
- Certified Professional Archaeologist, City of Simi Valley
- Certified Professional Archaeologist, Orange County
- Certified Professional Archaeologist, Riverside County

AFFILIATIONS

- Society for American Archaeology
- Society for California Archaeology
- Ventura County Archaeological Society

Leane Dunn

SENIOR BIOLOGIST / ARBORIST

PROFILE: Leane Dunn has more than 20 years of experience in environmental consulting managing the environmental process for infrastructure, municipal, utility, wastewater, and private projects. She conducts and manages general and species-specific biological surveys, arborist surveys, oversees and prepares biological and arboriculture documents, prepares biological resource sections of CEQA documents, evaluates potential species habitat and project impact analysis, develops mitigation measures, and assist clients with the environmental permitting process for aquatic resources and the endangered species acts. Leane conducts and oversees preconstruction surveys, worker awareness training, construction monitoring, and postconstruction reporting. Her primary focus and experience include habitat and species within the Central Valley, Sierra Nevada, San Francisco Bay Area, and North State regions.

EDUCATION:

- Master of Forestry (M.F.), emphasis on Urban Forestry and the Wildland-Urban Interface, University of California, Berkeley, 2010
- Bachelor of Science (B.S.), Ecology & Systematic Biology, Emphasis on Entomology and Invertebrate Biology, California Polytechnic State University, San Luis Obispo, 2003

PROFESSIONAL EXPERIENCE

BOWERS BACKUP GENERATING FACILITY

California Energy Commission, 2022-2023

The project proposes to develop an emergency backup generating facility at a site in Santa Clara, CA, in order to provide uninterrupted power supply to its tenant's servers at the Bowers Data Center. As the lead agency, CEC prepares the CEQA document with support by Aspen. Ms. Dunn conducted a biological site visit to determine if sensitive natural resources occurred at or near the site, verified the information provided in the applicant's arborist report, and prepared the report documenting the findings. She provided senior review of preparation of the biological resources section of the CEQA document and coordinated with CEC staff.

FOUNTAIN WIND ENERGY PROJECT

California Energy Commission, 2022-2024

The Fountain Wind Energy Project is a proposed wind energy generation development in unincorporated Shasta County, that would construct up to 48 wind turbines with a nameplate generating capacity of up to 7.2 megawatts (MW) each, and ancillary facilities. This highly controversial project has been denied by the Shasta County Board of Supervisors twice. Ms. Dunn was involved in the data review and request for additional information regarding biological resources at the site. The site is within the overlapping range of federally listed Northern Spotted owl and California spotted owl, which is proposed for federal listing.

FORM ENERGY BATTERY PROJECT

California Energy Commission, 2023-2024

The Form Energy Project has been proposed as a collaboration between Form Energy, Inc and Pacific Gas and Electric in Mendocino County, which consists of a commercial-scale demonstration of a new form of low-cost, long-duration energy storage; Form Energy's 100-hour, iron-air battery technology. Ms. Dunn provided senior review and oversight on the preparation of the Biological Resources Technical Report, biological resources section of the CEQA document, and response to CEC and applicant comments.

BHE GEOTHERMAL PROJECTS

California Energy Commission, 2023-2025

The BHE Geothermal Projects, Elmore North, Morton Bay, and Black Rock, are located within the Salton Sea Known Geothermal Resource Area located near Calipatria, Imperial County. The Projects include three 157 megawatt (gross) and 140megawatt (net) renewable geothermal power plant and related facilities. Ms. Dunn prepared the biological resources section of the Preliminary Staff Assessment document (CEQA-equivalent) for the three projects, which shared construction staging, parking areas, and facilities. Known resources in the area include marshland habitat, burrowing owls, desert pupfish, Yuma Ridgeway's rail, California black rail, and numerous other bird species.

SITING, TRANSMISSION, AND ENVIRONMENTAL PROTECTION, OPT-IN SUPPORT, AND BATTERY STORAGE: BIOLOGICAL RESOURCES

California Energy Commission, 2022-Present

The Siting, Transmission, and Environmental Protection Workload, Opt-In Support, and Battery Storage are multi-year, multi-task, statewide contracts with the California Energy Commission. These contracts include the evaluation of energy projects that require evaluation under CEQA, such as: Application for Certification (AFC) review of new gas-fired and renewable power plants and related transmission lines and battery storage projects; compliance monitoring of permitted facilities; designation of transmission corridors; and other activities in the areas of environmental impact assessment, engineering, and related regulatory matters. Ms. Dunn prepared or is assisting with the preparation of the **biological resources section of the CEQA analysis** for the Bowers Backup Generating Facility, Elmore North Geothermal Project, Morton Bay Geothermal Project, Black Rock Geothermal Project, Sutter Energy Decarbonization Project, Compass Battery Energy Storage Project, Form Energy Project, and Valley Childrens Hospital Microgrid Project.

WILDFIRE RISK REDUCTION, RELIABILITY, AND ASSET PROTECTION PROJECT

Trinity Public Utilities District, 2022-2024

Ms. Dunn is a **Senior Biologist** of this important wildfire risk reduction project in Trinity County. The Project seeks to expand the transmission and distribution line rights-of-way (ROW) for vegetation clearance on 234 miles of TPUD and WAPA's electrical system. This controversial Project is the first of its kind to expand to a width of 125 feet from centerline for distribution lines as well as transmission lines. The Project includes long-term operation and maintenance plans as well as all permit applications with the RWQCB, CDFW, USFWS, ACOE, and others. Ms. Dunn has been involved with the Biological Summit meetings, response to agency comments, and revisions to the Biological Resources Technical Report. She has developed GIS metrics for species-specific habitat analysis and updated species discussions. She worked with USFWS to prepare a northern spotted owl "adjusted likelihood of occupancy grid" to estimate project-level take for FESA consultation. She assisted with the preparation of the USFWS Biological Assessment, and biological reports for the Shasta Trinity National Forest (Biological Evaluation, Wildlife Survey and Manage Report, Management Indicator Assemblage Report).

WAPA SNR ON-CALL BIOLOGICAL SUPPORT SERVICES PROJECT

Western Area Power Authority (WAPA), Sierra Nevada Region (SNR), 2022-2025

Ms. Dunn is the **Deputy Program Manager** to provide on-call biological support services to support WAPA SNR with all aspects of biological resource compliance and management. WAPA's SNR covers northern California and northern Nevada. Ms. Dunn has provided on-going client coordination on surveys and scheduling, and conducted biological surveys to support mastication, herbicide treatments, hazard tree removal, and other vegetation management activities; access road grading and road improvements; helicopter landing zones; and water quality monitoring. To date, surveys included flagging sensitive resource features, such as riparian areas, ponds, seasonal wetlands, channels and other aquatic features; flagging elderberry shrubs to protect valley elderberry longhorn beetle; surveys for nesting MBTA birds and birds of prey; surveys for burrowing owl and burrowing owl habitat; rare plant surveys; surveys for giant garter snake aquatic and upland habitat; and aquatic resource delineations,

reporting and permit application preparation. Tasks under this contract have been conducted in the Sacramento and San Joaquin Valleys, Sierra Nevada mountains, Northern Cascades, Klamath Mountains, and San Francisco Bay Area.

BLM LANDS AND WILDERNESS CHARACTERISTICS (LWC) INVENTORIES

Ukiah Field Office (UKFO), Bureau of Land Management (BLM),2022-2023

The UKFO requested a review of the data and completion of Lands with Wilderness Characteristics (LWC) inventories for the lands managed by the UKFO and surrounding area. Ms. Dunn led the field evaluation and post field data analysis for the Wilderness Characteristics Inventory and Route Analysis for over 45,000 acres of potential LWC areas in Lake, Colusa, and Napa counties. The effort is conducted in compliance with the *6310 Conducting Wilderness Characteristics Inventory on BLM Lands* manual.

CACHE CREEK AGGREGATES HABITAT RESTORATION PROGRAM

Granite Construction, 2022-2027

Granite Construction is required to start a five-year monitoring clock for both vegetation and wildlife following habitat reclamation at a previously disturbed mining site in Capay, CA, in accordance with the *Cache Creek Aggregates Habitat Restoration Program*. After completion of revegetation activities, wildlife monitoring surveys for avian use at the reclaimed site must be completed quarterly throughout the duration of the five-year period. Ms. Dunn is managing the client coordination, field surveys and monitoring reports.

YUBA WATER AGENCY TRANSMISSION ROUTE ANALYSIS

Yuba Water Agency, 2023-2024

Aspen evaluated the environmental and permitting risks associated with the four electric transmission line route options for potential development of a wholesale power transmission line to serve Beale Air Force Base. Ms. Dunn was the **Biological Lead**, conducted the desktop review of biological resources at the potential sites, and prepared an analysis of the environmental constraints for each of the options. Once the preferred option was determined, Ms. Dunn prepared a biological approach memorandum that outlines survey approach and potential biological resource and schedule constraints.

OFFSHORE WIND ALTERNATIVE PORT ASSESSMENT

Moffat and Nichol, prime for the California State Lands Commission, 2023

Aspen prepared a desktop analysis of 17 port sites that could serve offshore wind with construction or operations and maintenance facilities. The analysis included identification of potential greenfield sites that may be suitable for development, as well as existing developed port and harbor facilities. Ms. Dunn was the **Biological Lead**, conducted the desktop analysis of biological [non-marine] resources at the potential sites, and created a ranking system based on resources found. The ranking system was pooled with other environmental issue areas to provide an overall ranking of site feasibility.

SAN JOAQUIN COUNTY MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN BIOLOGICAL SERVICES ON-CALL

San Joaquin Council of Governments, 2022-Present

Ms. Dunn is the **Deputy Program Manager** for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) Biological Services On-Call contract. Pre-qualified firms are required to conduct expedited surveys for any one of the 97 species that are covered in the SJMSCP. The biological services consist of review of SJMSCP GIS Database, performing preconstruction surveys and completing the Preconstruction Field Survey Form, incorporation and or implementation of Incidental Take Minimization Measures (ITMMs) as needed, species-specific surveys, and monitoring of development projects.

BIG DALTON SLUICEWAY REHABILITATION PROJECT

Los Angeles County Public Works, 2023

Big Dalton is a multiple arch concrete dam with a circular ogee spillway located near the City of Glendora. The Stormwater Engineering Division of the LACPW began the project in 2020, which was scheduled for completion in Aug/Sept 2023, two months after the existing WQC was scheduled to expire, thus requiring a renewal. Ms. Dunn prepared a revised RWQCB Section 401 Water Quality Certification application on an accelerated timeline utilizing the information from the previous application to reflect remaining work items.

SMUD ENVIRONMENTAL AND CEQA SUPPORT SERVICES ON-CALL CONTRACT

Sacramento Municipal Utility District, 2016-2023

Ms. Dunn acted as **Project Manager** for various SMUD utility projects in Solano, Sacramento, and Yolo counties, first as a SEED subconsultant to multiple prime consultants, and then under Aspen, over a span of two contracts. She managed schedule, preconstruction surveys, monitoring, biological assessment, and reporting for numerous projects in the SMUD distribution and energy generation areas. Sensitive species and habitat features include giant garter snake, CA red-legged frog, vernal pool branchiopods, CA tiger salamander, burrowing owl, Swainson's hawk, nesting birds, and wetland and water features. She prepared RWQCB Section 401 and CDFW Streambed Alteration Agreement permit applications for a pole relocation moved from a wetland/floodplain to an upland area. The project was considered non-reporting under USACE Section 404 NWP 12.

SOLANO WIND STORM DAMAGE AND CULVERT REPLACEMENT PROJECTS

Sacramento Municipal Utility District, 2018; 2022

Ms. Dunn acted as **Project Manager** for the Solano Wind Storm Damage and culvert replacement project in 2018 (previous work experience), and assisted with managing the Solano Wind Toland Land culvert replacement project in 2022. In 2018, Ms. Dunn oversaw the Worker Environmental Awareness Program (WEAP) training and construction monitoring for the site. In 2022, Ms. Dunn conducted preconstruction surveys for burrowing owl, California tiger salamander, American badger, monarch butterfly, Swainson's hawk, tricolored blackbird, golden eagle, white-tailed kite, loggerhead shrike, short-eared owl, and northern harrier. She prepared the burrowing owl and CA tiger salamander habitat assessments and preconstruction survey reports. One burrowing owl was observed during the survey.

PREVIOUS PROFESSIONAL EXPERIENCE

SAN ANSELMO FLOOD RISK REDUCTION (SAFRR) PROJECT

Marin County Flood Control and Water Conservation District, 2021-2022

Ms. Dunn was the **Permitting Lead** for the redesign of a flood detention basin and bank stabilization project to reduce flood risk in Fairfax Creek and San Anselmo Creek. Her role included a re-evaluation of project impacts and submittal of updated project information to support the Project Section 404 NWP from the USACE, Section 401 WQC from the RWQCB, and Section 1602 LSAA from the CDFW. Through ongoing coordination with the agencies, Leane was able to secure the permits on an accelerated schedule for a September 2021 construction start. She is managing and scheduling construction support services, including preconstruction surveys, worker training and monitoring, agency coordination and permit compliance.

SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY OUTFALL CHANNEL AND INSTRUMENTATION IMPROVEMENTS PROJECT

City of San José Environmental Services Department, 2021-2022

The San José-Santa Clara Regional Wastewater Facility is the largest advanced wastewater treatment facility in the western United States. Ms. Dunn was the **Permitting Lead** to support the replacement of aging infrastructure to maintain compliance with effluent monitoring. Ms. Dunn finalized the preparation of the applications for a Section 404 NWP from the USACE, Section 401 WQC from the RWQCB, Section 1602 LSAA from the CDFW, and

the BCDC permit amendment request. Ms. Dunn assisted in identifying mitigation options to offset impacts to state waters, including purchasing of credits through a RIBITS (Regulatory In-Lieu Fee and Bank Information Tracking System) USACE approved mitigation bank. She participated in interagency meetings and provided agency coordination support.

MARIN EAST BAY EMERGENCY INTERTIE PROJECT

Marin Municipal Water District (Marin Water), 2021-2022

The Project is the construction of potable water infrastructure to connect the Marin Water system in Marin County to East Bay Municipal Utility District's (EBMUD) system in Contra Costa County to address water shortage emergency conditions. Ms. Dunn prepared the San Francisco Bay Conservation and Development Commission (BCDC) permit application requesting an amendment to the Caltrans existing BCDC permit for the Richmond-San Rafael Bridge.

PINE MOUNTAIN TUNNEL TANKS REPLACEMENT PROJECT

Marin Municipal Water District (Marin Water), 2021-2022

The Project is the replacement of the existing Pine Mountain Tunnel water storage facility with 2-million-gallon concrete water storage tanks on Marin Water property. Ms. Dunn oversaw the preparation of the Aquatic Resources Delineation Report and Compensatory Mitigation options, and preparation of the applications for a Section 404 NWP from the USACE, Section 401 WQC from the RWQCB, and Section 1602 LSAA from the CDFW.

SIERRA PINES REGIONAL WATER TREATMENT FACILITY PROJECT

Tuolumne County Utilities District (TUD), 2021-2022

The proposed Project is to develop a consolidated regional water treatment facility at the site of a former golf course in Tuolumne County in order to increase reliability of TUD's water supply and improve facility infrastructure. Ms. Dunn guided the client in the interagency meeting with USACE and RWQCB and assisted with preparation of the permit applications for a for a Section 404 NWP from the USACE and Section 401 WQC/WDR from the RWQCB.

CROCKER ROAD BRIDGE BIKE AND PEDESTRIAN PASSAGE PROJECT

County of Sonoma Department of Transportation and Public Works / MGE Engineering, Inc., 2022

The County of Sonoma Department of Transportation and Public Works, in cooperation with Caltrans District 4 Local Assistance, intends on constructing a Class I bicycle and pedestrian access across the Russian River Bridge on Crocker Road (Bridge No. 20C-002). Leane was the project manager for environmental services, attended the site meeting and Caltrans support meeting for the Project, and prepared the Project Description. She oversaw the preparation of the Natural Environment Study/Minimal Impacts (NESMI).

TUOLUMNE LOG POND (WESTSIDE) DAM RETROFIT PROJECT

Tuolumne Economic Development Authority (TEDA), 2021-2022

The Tuolumne Bank of Me-Wuk Indians purchased the property from Westside Lumber Company to protect and preserve their cultural areas within the property and develop a destination resort, which will contribute towards economic independency of the Tribe. Ms. Dunn assisted with project close-out and permitting coordination to retrofit the dam to meet current Division of Safety Dam (DSOD) standards.

CULVERT MAINTENANCE AND REPLACEMENT PROJECT, PHASE 3

Marin Municipal Water District (Marin Water), 2021-2022

The Project is the replacement of over 70 culverts within the road segments of District lands in accordance with the Mt. Tamalpais Road and Trail Management Plan (RTMP). Ms. Dunn provided permitting support; prepared the applications for the Section 404 NWP from the USACE, Section 401 WQC from the RWQCB, and Section 1602 LSAA from the CDFW; and participated in interagency meetings.

AZALEA HILL TRAIL RESTORATION PROJECT

Marin Municipal Water District (Marin Water), 2021

Marin Water adopted an Amendment to the Mt. Tamalpais Watershed Road and Trail Management Plan (RTMP) for the Restoration of Azalea Hill. Upon its completion, the project would prevent 219 CY of sediment from entering Azalea Hill's creeks and Alpine Lake annually and would restore habitat. Marin Water secured grant funding through State Parks, which was funded by transportation funds and required Caltrans oversight. Ms. Dunn managed the preparation of the Caltrans Natural Environment Study (Minimal Impacts) and Water Quality Technical Memo, which were approved by Caltrans.

B.F. SISK DAM RAISE AND RESERVOIR EXPANSION PROJECT

CDM Smith, Inc. / Bureau of Reclamation, 2021-2022

The Project proposes to raise the B.F. Sisk Dam on the San Luis Reservoir in Merced County in order to increase operational flexibility and improve water storage supply reliability. Ms. Dunn prepared the initial draft of the USACE Section 404 Individual Permit application.

LAKESIDE AT SUTTER POINTE

South Sutter, LLC / Riego 1700, LLC, 2021-2022

The Project is the development of the Lakeside at Sutter Pointe mixed-use community in Sutter County. Ms. Dunn assisted with the preparation of the application to request a Waste Discharge Requirement (WDR) from the Regional Water Quality Control Board (RWQCB). The Project WDR was approved to use the Natomas Basin Habitat Conservation Plan (NBHCP) as a watershed plan and compensatory mitigation plan to comply with the State Wetland Procedures. Ms. Dunn assisted with the preparation of the WQC/WDR application and supplemental information, including the Watershed Plan and Compensatory Mitigation Plan. The WDR was approved by the State Water Resources Control Board in early 2022.

MARE ISLAND STORM DRAIN REPLACEMENT PROJECT, CHARLIE BASIN–SEGMENT A

Lennar Mare Island, 2015-2021

Ms. Dunn was the Project Manager for the replacement of a storm drain on Lennar Mare Island that discharged into the Mare Island Strait. Ms. Dunn prepared the biological assessment and jurisdictional delineation report for green sturgeon, delta smelt, steelhead, Chinook salmon, salt marsh harvest mouse, and California Ridgway's rail (aka California clapper rail). She prepared the joint aquatic resource permit application (JARPA) (U.S. Army Corps of Engineers [USACE] Section 404, Regional Water Quality Control Board [RWQCB] Section 401, CDFW Section 1602, and San Francisco Bay Conservation and Development Commission [BCDC]) and obtained the permits. She coordinated with the client, agencies, and engineer regarding multiple design revisions, resulting in changes to the permits. Ms. Dunn also prepared an environmental worker training handout and conducted training and provided preconstruction surveys and construction monitoring for special-status animal species. She is a CDFW-approved monitor for salt marsh harvest mouse. Ms. Dunn assisted the client with obtaining a subconsultant to provide revegetation planting in accordance with the CDFW and RWQCB permits. In addition, she oversaw preparation of annual revegetation monitoring reports, provided peer review, and submitted reports to the agencies. The island was sold to Nimitz Group in 2019, and Leane reinitiated a revegetation monitoring contract with the new owner.

COUNTY ROAD 40 OVER CACHE CREEK BRIDGE REPLACEMENT PROJECT

County of Yolo / MGE Engineering, Inc., 2018-2021

The Project was a Caltrans Local Assistance – and California Department of Forestry and Fire Protection-funded project to replace a closed bridge in Yolo County with a safe load capacity of zero tons to provide emergency vehicle access. Ms. Dunn managed and assisted with preparation of a Natural Environment Study for foothill yellow-legged frog and other special-status species in accordance with the Yolo County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). She prepared and submitted a Conservancy Reporting

Form for coverage under the HCP/NCCP; oversaw preparation of the aquatic resources delineation report; and coordinated with the subconsultant, client, and County regarding the archaeological study report and Extended Phase 1 report. Leane also provided peer review of the CEQA initial study/mitigated negative declaration (IS/MND) and Response to Comments document. She prepared a USACE 404 Nationwide Permit (NWP), RWQCB Section 401 water quality certification, and CDFW 1602 EPIMS Lake and Streambed Alteration Agreement applications and prepared a scope of work and budget.

UNION PUBLIC UTILITY DISTRICT BACKWASH/RECYCLING AND TANK AERATION PROJECT

Union Public Utility District / Weber, Ghio & Associates, 2014-2015

The Project included three water treatment plant improvement projects in Calaveras County funded under the Water State Revolving Fund. Ms. Dunn prepared the biological assessment for special-status species, including California red-legged frog, and oversaw preparation of the aquatic resources delineation report, CEQA IS/MND, and subconsultants' preparation of the cultural resource study.

SOUTH FORK POWERHOUSE AND BOATING FLOW RELEASE FACILITY

Sacramento Municipal Utility District / McMillen Jacobs Associates, 2016-2017

The project involves the addition of a new powerhouse and boating flow release valve to comply with the minimum instream and recreation flow requirements specified in the Upper American River Hydroelectric Project (UARP) water quality certification issued by the State Water Resources Control Board (State Water Board). Ms. Dunn managed preconstruction surveys, worker training and construction monitoring. She conducted an arborist survey of trees proposed for removal during construction per the requirements of the CDFW 1602 Streambed Alteration Agreement.

BATTERY ENERGY STORAGE SYSTEM PROJECT

Sacramento Municipal Utility District, 2016-2017

The project was for a new battery energy storage system at SMUD's Hedge Substation Facility. Ms. Dunn oversaw the biological surveys and biological resources evaluation report. She coordination with SMUD regarding vernal pool fairy shrimp concerns, provided recommendations for species avoidance, and prepared a scenario table that described timeline, costs, advantages and disadvantages of four options.

DUTCH CHARLIE BRIDGE REPLACEMENT ON WILDERNESS LODGE ROAD

County of Mendocino Public Works Department / MGE Engineering, 2014-2021

Ms. Dunn was the Project Manager for a Caltrans Local Assistance bridge replacement Project. She hosted a site visit at the site location with the agencies and consultants to discuss biological constrains and project approach. Ms. Dunn managed subconsultants' preparation of a Natural Environment Study, wetland study, salmonid assessment, and cultural resource documents, and provided QA/QC review. She prepared a biological assessment for northern spotted owl, marbled murrelet, western yellow-billed cuckoo, coho, Chinook salmon, and steelhead.

WILLIAMS CREEK BRIDGE REPLACEMENT ON POWERHOUSE ROAD

County of Mendocino Public Works Department / MGE Engineering, 2014-2020

Ms. Dunn was the Project Manager for a Caltrans Local Assistance bridge replacement project. She managed subconsultants' preparation of a Natural Environment Study, wetland study, cultural resource documents and permit applications. The Project went out to bid for construction in 2020.

SINGLETREE DRIVE OVER LITTLE JOHNS CREEK AND HOGAN DAM ROAD OVER BEAR CREEK LOW WATER CROSSING CONVERSION (NEW BRIDGE) PROJECTS

Calaveras County Public Works Department / WSP, 2012-2020

Ms. Dunn assisted with preparation of the Preliminary Environmental Study (PES) forms and prepared Caltrans Natural Environment Studies for two Caltrans Local Assistance new bridge projects in Calaveras County. She

oversaw preparation of wetland studies, a California red-legged frog site assessment, and permit applications; provided peer review; and managed the cultural subconsultant and provided editorial review. Construction occurred in 2020.

RIO COSUMNES CORRECTIONAL CENTER (RCCC) SUBSTATION PROJECT

Sacramento Municipal Utility District, 2017-2019

The project was a new 12.5 megavolt-ampere substation and sub-transmission line for the RCCC substation in Sacramento County. Ms. Dunn oversaw field surveys and preparation of the biological resources evaluation report and the aquatic resources delineation report. She provided coordination and oversight regarding Phase 1 and Phase 2 of the preconstruction surveys for Swainson's hawk, giant garter snake, and other special-status species, and prepared the scope of work and budget. Construction was completed in 2019.

HARDIN FLAT ROAD BRIDGE OVER THE SOUTH FORK TUOLUMNE RIVER REPLACEMENT PROJECT

Tuolumne County Public Works Department, 2014-2018

Ms. Dunn acted as project manager for a Tuolumne County project that replaced a bridge damaged by the Rim Fire of 2014. She prepared a Caltrans Natural Environment Study (Minimal Impacts) and water quality assessment memo. She assisted the County with bat exclusion before construction; oversaw preconstruction surveys, environmental training, and monitoring during construction for roosting bats, nesting birds, foothill yellow-legged frog, and western pond turtle; managed summary reports of the results; and prepared the scope of work and budget. The project was constructed in 2018.

DAM ROAD EXTENSION PROJECT

City of Clearlake, 2016

Ms. Dunn was the biological services Project Manager for a project to extend Dam Road to Phillips Avenue. She conducted the biological survey and prepared the Natural Resources Due Diligence Report, including construction recommendations and guidance to satisfy mitigation measures in the City prepared CEQA Initial Study. The project included on-going coordination with the City and City Planner. The road was constructed in 2019.

HARNEY LANE BRIDGE SCOUR MITIGATION ACROSS PADDY CREEK PROJECT

San Joaquin County, 2019-2021

Ms. Dunn was the project manager for a Caltrans local assistance scour mitigation project. She managed and assisted with preparation of Natural Environment Study – Minimal Impacts document and oversaw the preparation of the Aquatic Resources Delineation Report (Wetland Study). Ms. Dunn provided oversight of subconsultants preparation of the Water Quality Technical Memo and Initial Site Assessment.

RANCHO VICTORIA VINEYARDS RECYCLED WATER PROJECT

Rancho Victoria Vineyard / City of Plymouth, 2014-2015

The Project involved the development of transfer and conveyance facilities needed to get treated effluent (recycled water) from the City of Plymouth's wastewater facilities to the Rancho Victoria Vineyard property. Ms. Dunn managed the preparation of the Biological Resources Evaluation Report and assisted with the preparation of the biological section of the Initial Study Mitigated Negative Declaration.

PERMITS AND CERTIFICATIONS

- CDFW Scientific Collecting Permit – General Use-Terrestrial Wildlife (SC-211760003)
- CDFW Plant Collecting Permit (2081 (a)-23-019-V)
- CDFW SCP, California Bumble Bee Atlas, The Xerces Society, Citizen Scientist (EID-210530001)
- ISA Certified Arborist/Utility Specialist (WE-7368AU)
- ISA Tree Risk Assessment Qualification (TRAQ) Certification

- Certified Yolo HCP/NCCP Qualified Biologist for planning-level habitat surveys (Exp. 12/31/2026), Valley elderberry longhorn beetle planning level species surveys, California tiger salamander planning-level species surveys, western pond turtle preconstruction surveys and monitoring, giant garter snake preconstruction surveys and monitoring, Swainson's hawk preconstruction surveys and monitoring, and burrowing owl planning-level surveys and preconstruction surveys.

WORKSHOPS, TRAININGS AND CONFERENCES

- Master Level Foothill Yellow-legged Frog Field Workshop 2024. Observed FYLF egg masses, tadpoles.
- San Francisco Zoo Passive Integrated Transponders (PIT) tagging for Sierra Nevada yellow-legged frog (*Rana sierrae*), handling of 110 individuals, San Francisco Zoo, March 2024
- The Wildlife Society, Western Section, 71th Annual Meeting, Rohnert Park, February 2024
- CA/NV Amphibian Populations Task Force (APTF) Meeting, Sebastopol, January 2023; Merced, January 2024
  - Day Ranch Conservation Easement Field Trip – vernal pool habitats on working ranch, 2024
- The Bumble Bee Field Course, Xerces Society and the Western Section of TWS, Markleeville, CA, July 2023
- Vernal Pool Exploration: Sonoma County's Rare & Unique Ecosystem, Laguna Foundation (2 hours) - SACMA mitigation preserve, Santa Rosa, May 2023. Observed Burke's goldfields (*Lasthenia burkei*, FE, CE).
- California Tiger Salamander (CTS) Terrestrial Ecology Workshop, Santa Rosa, March 2023
  - Field trips: CTS pitfall trap and fence installation, CTS tunnel systems
- Rare Pond Species Survey Techniques Workshop (western pond turtle (WPT), California tiger salamander (CTS), California red-legged frog (CRLF)), Santa Rosa, March 2023
  - Field trips: WPT trapping demonstration, WPT presence/absence survey; CTS larval dipnet survey, handling and measurement; CRLF evening spotlight survey; CRLF handling (all conducted under permitted individual)
- The Wildlife Society, Western Section, 70th Annual Meeting, Riverside, February 2023

PROFESSIONAL AFFILIATIONS

- International Society of Arboriculture/Western Chapter ISA/Utility Arborist Association
- Society of American Foresters/California SAF-Redwood Coast Chapter
- California Bumble Bee Atlas (2022-Present)
- The Wildlife Society, The Western Section and S.F. Bay Area
- The Xerces Society for Invertebrate Conservation
- UC Berkely Cal Alumni Association – Golden Bears Life Membership
- The Planetary Society

PREVIOUS EMPLOYMENT

- Sole Proprietor, contractor to TreePro Professional Tree Care, 2022
- Environmental Science Associates (ESA), Permitting Specialist, 2021-2022
- Sycamore Environmental Consultants, Senior Biologist/Arborist/Project Manager, 2006-2021
- Graduate Student Instructor (GSI) / Graduate Student Researcher (GSR), UC Berkeley, 2008-2010
- Western Environmental Consultants, Inc., Utility Arborist, 2004-2006
- Visitor Service Park Aid, California State Parks, Folsom Lake SRA, Peninsula Campground, Pilot Hill, 2000-2004

Sudath Edirisuriya

Education and Work Experience:

- Bachelor of Science in Electrical Engineering in Power - California State University, Fullerton- June 1995.
- Graduate coursework in Electrical Engineering in Power - California State University, Sacramento.
- Evaluated System Impacts (SI) and Feasibility Studies (FS) for 25 major Renewable and Conventional power plants, totaling more than 12000 MW. These projects primarily feed into the SCE, PG&E, and SDG&E control areas.

EXPERIENCE:

June 2017 to present -Senior Electrical Engineer, Energy Assessments Division, California Energy Commission. Assisted in developing a methodology to integrate battery storage into the CA ISO grid using Locational Marginal Prices (LMP). Participated in NERC-conducted study group meetings to evaluate the momentary cessation of Solar farm inverters due to transient instability.

November 2001 to June 2017 - Grid Planning Electrical Engineer,
System Assessment and Facilities Siting Division, California Energy Commission. Working in the Transmission System Engineering unit on licensing generation projects. Work involves evaluating generation interconnection studies (SIS and FS), their reliability, and environmental impacts on transmission systems, preparing staff assessment reports, and presenting testimony and technical expertise to the commission. Perform reliability studies, coordinating data and technical activities with utilities, California ISO, and other agencies. Conducted and performed planning studies and contingency analysis, including power flow, short-circuit, transient, and post-transient analysis, to maintain reliable operation of the power system. Understanding regulatory and reliability guidelines, WECC and NERC planning and operation criteria, and CPUC and FERC requirements. Review technical analyses for WECC/CA ISO/PTO transmission systems and provide support for regulatory filings. Participates in California ISO-conducted Planning Study Group meetings in SCE and SDG&E area

June 1998 to November 2001 Lead Project Electrical Engineer, Design Electrical Engineering Section, Department of Transportation, California
Electrical Engineering knowledge, skills, and leadership in the design, construction, and maintenance of California state work projects involving all the public work areas. Construction management, plan checking, field engineering, contract administration, and interfacing with consultants, developers, and contractors. Preparation of project reports and cooperative

agreements, as well as review plans for compliance with construction and design guidelines for national electrical code, standards, and ordinance. The review process included breaker relay coordination, detailed wiring diagrams, layout details, service coordination, load, conductor sizes, derated ampacity, voltage drop calculations, and harmonic and flicker determination.

June 1995 to May 1998 Substation Electrical Engineer, City of Anaheim, California.
Performed protective relay system application, design, and setting determination in Transmission & Distribution Substation. Application of principles of selective coordination system protection and controls for Electric Utility Equipment. Application of power theory and analysis of symmetrical components. Ability to review engineering plans, specifications, estimates, and computations for electrical utility projects. Electrical Engineering design practices, including application of Electro-mechanical and solid-state relays in Electrical Power Systems. Software skills in RNPDC (Fuse Coordination Program), Capacitor Bank allocation program, and GE Load Flow Program. Design projects using CAD and Excel spreadsheets, including cost estimates, wiring diagrams, material specifications, and field coordination.

Alvin Greenberg, Ph.D., QEP(emeritus)

Alvin Greenberg has a B.S. from the University of Illinois, Urbana, and a Ph.D. from the University of California San Francisco. He conducted postdoctoral research in neurotoxicology and served as an Acting Assistant Professor at UCSF. He also attended the prestigious Lovelace Institute of Inhalation Toxicology in 1980 and is Board Certified as a Qualified Environmental Professional (QEPemeritus). Dr. Greenberg was formerly Chair of the Bay Area Air Quality Management District Hearing Board, a former Member of the State of California Occupational Safety and Health Standards Board (appointed by the Governor), and former Assistant Deputy Chief for Health, California OSHA. He has published the results of original scientific research in peer-reviewed journals as well as a chapter in a scientific book, served as a scientific publications peer reviewer for an international journal, and has reviewed grant proposals for the California Energy Commission and the San Francisco City and County.

Dr. Greenberg's expertise in risk assessment has led to his appointment as a member of several state and federal advisory committees, including the Cal/EPA Department of Toxic Substances Control Program Review Committee, the DTSC Integrated Site Mitigation Committee, the California State Water Resources Control Board Bay Protection and Toxic Cleanup Program Advisory Committee, the California EPA Advisory Committee on Stochastic Risk Assessment Methods, the U.S. EPA Workgroup on Cumulative Risk Assessment, the Cal/EPA Peer Review Committee of the Health Risks of Using Ethanol in Reformulated Gasoline, and the California Air Resources Board Advisory Committee on Diesel Emissions. He has also served as an expert witness on toxic exposure cases and adjudicated several such cases while serving as Chair of the Bay Area Air Quality Management District Hearing Board. Perhaps just as important, Dr. Greenberg has considerable experience and expertise in risk communication, explaining issues of exposure and risk to large groups of very concerned citizens on very complex and challenging projects. He has taught a course on Environmental Causes of Cancer and has trained compliance staff of the California Energy Commission on human health risk assessment. He has also testified in both Superior Court and U.S. District Court as an expert witness.

Dr. Greenberg has considerable experience and ability to prepare CEQA and NEPA documentation for many projects, including gas-fired, battery energy storage systems (BESS), wind turbines, and solar power (power-tower, parabolic trough, and photovoltaic) plants. In his work under contract to the California Energy Commission, he has authored and defended at Evidentiary Hearing over 150 CEQA-equivalent Staff Assessments for power plant siting cases in California over a 30-year period, including EIRs and EISs for a large variety of power plants including solar PV, BESS, wind turbines, carbon sequestration, and a coal gasification in the San Joaquin Valley. He was responsible for preparing this documentation in the areas of Hazardous Materials Management, Worker Safety/Fire Protection, Public

Health and Safety (human health risk assessment), Glare Risk Assessment, Impacts of Solar Flux on Avian Species, Hazardous Waste Management, and conducting assessments of existing asthma, cancer, and respiratory disease incidence rates in areas where power plants were proposed to be built.

Regarding contaminated sites, he has had over four decades of experience in the preparation of human health risk assessments, hazardous waste site characterization, air quality assessments, hazardous materials handling and risk management/prevention, infrastructure vulnerability assessments, occupational safety and health impacts, interaction with regulatory agencies in obtaining permits, conducting lead surveys and studies, site characterization and hazard assessments of locations impacted by Wildland Urban Interface fires, and in Prop. 65 cases.

From January 2005 until 2019 he trained and led an audit team conducting hazmat, safety, and security inspections and incident investigations at power plants throughout California for the CEC. His unique experience in Cal-OSHA and with the CEC allows him to effectively identify safety and health hazards. Additionally, his training and experience in critical infrastructure security led to him to becoming the lead for the California Energy Commission development of a power plant vulnerability assessment methodology and model power plant security plan, reviewing and evaluating power plant security plans, and testifying at hearings on over 30 power plant security plans.

CALIFORNIA ENERGY COMMISSION

ASHLEY GUTIERREZ

Education & Certifications

- Bachelor of Arts, Geography with a concentration in Natural Resource Management, San Francisco State University (2013)
- Land Use and Environmental Planning Certification, UC Davis Extension (2019)

Experience

California Energy Commission - 2015 to Present

Compliance Project Manager, Compliance Monitoring and Enforcement Unit 2023-Present
As part of the Compliance Monitoring and Enforcement Unit, Mrs. Gutierrez serves as a project leader responsible for the overall guidance on highly complex and technical compliance projects such as power plant amendments, both major and minor in nature and conducts all construction and operational oversight for the California Energy Commission (CEC) jurisdictional power plant fleet. She provides technical support to the Reliability, Renewable Energy and Decarbonization Incentives (RREDI) Division's Distributed Electricity Backup Asset (DEBA) team by assisting with the review of California Environmental Quality Act (CEQA) determinations included in the grant applications and prepares categorical exemptions, if appropriate. Mrs. Gutierrez coodinates with the Inspection and Investigations Unit and CEC technical staff (i.e. Biology, Hazardous Materials and Soil and Water Resources) to successfully bring power facilities into compliance with their Conditions of Certification. Mrs. Gutierrez's communication and reporting skills allows her to work on various projects simultaneously. She also continues to fulfill her former duties as a Planner II for the Environmental Protection Office to ensure her technical sections for several Small Power Plant Exemptions (SPPEs) projects are completed and when called upon provides technical support, when needed. Lastly, she regularly uses a variety of tools such as Microsoft Word, Planner, Shareporint, and Excel.

Planner II (Energy Facility Siting), Environmental Protection Office 2020-2023
As part of Environmental Protection Unit, Mrs. Gutierrez served as a technical lead for the preparation of environmental impact analysis in the areas of transportation, land use, visual resources and socioeconomics (recreation, population/housing, public services) for Notices of Intention, Applications for Certification, and SPPEs as required by CEQA for thermal electric generating facilities (50 MWs and greater) and related linear facilities (electric transmission lines, natural gas and water pipelines). Mrs. Gutierrez also evaluated energy facility compliance with conditions of certification throughout the life (construction, operation, and decommissioning) of the project. She examined and evaluated amendments and project changes in accordance with the Warren-Alquist Act, CEQA, existing and proposed laws, ordinances, regulations, and standards (LORS). As well as participated in public workshops and provided testimony at hearings regarding project proposals. When necessary, she performed site visits. Mrs. Gutierrez also prepared a variety of CEQA categorical exemptions for the Energy Research and Development (ERDD) Division under the Food Production Investment Program (FPIP) and the Electric Program Investment Charge (EPIC) Program.

Planner I (Energy Facility Siting), Environmental Protection Office 2016-2020
Ms. Gutierrez prepared technical analysis for facility siting cases and planning studies in the areas of traffic and transportation and visual resources and formulated solutions to difficult problems. She provided technical expertise evaluating the environmental and socioeconomic effects of proposed energy facilities, transmission projects, policies, and plans for energy development to satisfy the Warren-Alquist Act and CEQA. Analyzed applications for certification (AFCs) and proponent environmental assessments (PEAs) for an inter-agency contract with the California Public Utilities Commission. Applied knowledge of environmental issues associated with energy facility siting and legal requirements to protect traffic and transportation, land use, visual resources, socioeconomics and formulated mitigation techniques to prevent significant impacts. Periodically traveled to participate in site visits, public workshops and hearings.

Energy Analyst, Environmental Protection Office 2015-2016
As part of the Siting, Transmission, and Environmental Protection (STEP) Division, Mrs. Gutierrez served as a technical lead for the preparation of environmental impact analysis in the areas of transportation, land use, visual resources and socioeconomics (recreation, population/housing, public services) for Notices of Intention, Applications for Certification, and SPPEs as required by CEQA for thermal electric generating facilities (50 MWs and greater) and related linear facilities (electric transmission lines, natural gas and water pipelines). Mrs. Gutierrez also evaluated energy facility compliance with conditions of certification throughout the life (construction, operation, and decommissioning) of the project. She examined and evaluated amendments and project changes in accordance with the Warren-Alquist Act, CEQA, existing and proposed laws, ordinances,

Assistant Store Manager, Abercrombie and Fitch
Mrs. Gutierrez's position as an assistant store manager was a multi-faceted role that merged business strategy, operations, creativity, and people management. She was responsible for driving sales results by analyzing the business and providing best-in-class customer service. She was responsible for overseeing daily store operations including opening and closing routines and driving efficiency in all store processes. She leveraged her creative expertise through floorset updates, styling recommendations and product knowledge. She was also a talent leader, driving everything from recruiting and training to engagement and development.

Projects

- Roseville State Power Augmentation Power Site (RSPAPS) Efficiency Upgrade, Placer County, CA.
Prepared the categorical exemption under CEQA for the issuance of a 1.5 million dollar CEC efficiency enhancement grant to install a hot gas path and evaporative coolers to existing temporary power generators.

- UCSD BESS Project, San Diego County, CA.
Prepared the categorical exemption under CEQA for the issuance of a 7 million dollar CEC efficiency enhancement grant for a new BESS at UCSD's campus utility plant.

- Viejas Tribe of Kumeyaay Indians- Alpine, San Diego County, CA.
Prepared the categorical exemption under CEQA for the issuance of a 31 million dollar CEC grant for a cutting edge, long duration energy storage system that provided renewable backup power for the Viejas Tribe of Kumeyaay Indians. This installation provided support to statewide grid reliability in the event of an emergency.

-San Jose Data Center Project- San Jose, Santa Clara County, CA.
Prepared the Transportation section and assisted with the preparation of the Cumulative analysis.

-Stack Data Center Project- Santa Clara, Santa Clara County, CA.
Prepared the Transportation section.

- Lafayette Data Center Project- Santa Clara, Santa Clara County, CA.
Prepared the Transportation section.

- Great Oaks South Data Center Project - San Jose, Santa Clara County, CA.
Prepared the Transportation section and assisted with the preparation of the Alternatives section.

- Mission College Data Center – Santa Clara, Santa Clara County, CA.
Prepared the cumulative impact analysis, Public Services, Population and Housing, and Recreation environmental analysis sections.

- Vierra Transmission Line Reinforcement Project - Lathrop, San Joaquin County, CA.
Prepared the Public Services, Population and Housing and Recreation sections and cumulative section.

- Ravenswood Reconductoring Project, East Palo Alto, San Mateo County, CA.
Prepared the Transportation, and cumulative impact analysis.

- SEGS III-VII Facility Decommissioning – Boron, San Bernardino County, CA.
Prepared the Transportation analysis for the Decommissioning Plan Staff Assessment.

- Stanton Energy Reliability Center- Stanton, Orange County, CA.
Prepared the cumulative analysis and assisted with the preparation of the Transportation section.

- Puente Power Project - Oxnard, Ventura County, CA.
Prepared the Land Use and cumulative analysis.

- Mission Rock Energy Center- Santa Paula, Ventura County, CA. Prepared the cumulative analysis.

- Chemehuevi Community Center Solar Grant Proposal, County, CA. Assisted with grant review.

CALIFORNIA ENERGY COMMISSION

MARK R. HAMBLIN
PLANNER II

Professional Summary:

With nearly 25 years of public service at the California Energy Commission, I have consistently contributed my expertise in complex issues pertaining to aesthetics/visual resources, and land use and planning in the siting of thermal power plants and transmission facilities, ensuring compliance with applicable federal, state, and local laws, ordinances, regulations, and standards, including the California Environmental Quality Act [CEQA] and Guidelines, California Planning, Zoning and Development Laws, and the Warren-Alquist Act, Power Facility and Site Certification program. My experience includes in-depth analysis and testimony, participation in public workshops, and presenting sworn testimony during evidentiary hearings before Commissioners.

Core Competencies:

- Aesthetics/visual resources analysis
- Land use planning, General Plan consistency, and zone conformance
- Regulatory compliance

Professional Experience:

- November 2000 to present
- Key Responsibilities and Achievements:
  - Identified, described, and analyzed complex aesthetics/visual resources, and land use and planning issues.
  - Reviewed and ensured compliance with CEQA, CEQA Guidelines, California Planning, and Zoning Laws, and Warren-Alquist Act.
  - Presented sworn testimony during evidentiary hearings.

Education:

- Master of Public Administration. California State University Bakersfield. Bakersfield, California. August 1988.
- Bachelor of Science Public Administration. California State University Sacramento. Sacramento, California. May 1984.

Roger G. Hatheway

ARCHITECTURAL
HISTORIAN/HISTORIAN/ARCHAEOLOGIST

PROFILE: Mr. Hatheway has been a qualified Principal Investigator in California since 1979. Prior to his hiring as an Aspen employee, he was employed by the County of San Bernardino as a Cultural Resource Specialist. His 22+ years working for a public agency offers him a unique perspective in preparing and reviewing cultural reports of any type. As an Architectural Historian and Built Environment Specialist, he has completed a wide and complex variety of cultural resource surveys, including documents prepared for federal, state, and local reviewing agencies. Large to small-scale projects have been completed under NEPA, National Historic Preservation Act – Section 106 4(f), and CEQA guidelines. He has conducted in-depth historical research using all forms of historic maps, public records, historic photographs, and the written record. He has identified and evaluated hundreds of potential historic sites. Field survey experience includes the recognition, identification, evaluation, and mapping of virtually every major type of building, object, feature, linear feature, historic archaeological site, and prehistoric archaeological site.

EDUCATION:

- MA, History, UCLA, 1977
- BA, History, Brown University, 1975, *magna cum laude*

PROFESSIONAL EXPERIENCE

HOOPA VALLEY ENERGY STORAGE PROJECT

California Energy Commission, 2024-

This ongoing CEQA project is being prepared for the California Energy Commission and the Hoopa Valley Tribe, Hoopa, Humboldt County, California. This project involves the installation of an energy storage project on tribal lands. It will include conducting an archaeological and built environment survey.

PIER WIND PROJECT PORT OF LONG BEACH

City and Port of Long Beach, 2024-

This ongoing Class III Section 106 project was prepared for the Port of Long Beach in the City of Long Beach, for review and approval by the USACE. It involved the archaeological and built environment survey of a 50+ year old former Navy Mole originally associated with the Long Beach Naval Station. This project included the conducting of complex in-depth research and NRHP evaluation of this historic age resource.

NOAKES POND REHABILITATION PROJECT

Contra Costa Resources Conservation District, 2024

This Class III Section 106 project was prepared for the Contra Costa Resources Conservation District in partnership with the USDA Natural Resources Conservation Service, and in consultation with the Bureau of Reclamation and East Bay Regional Park District. It involved the archaeological and built environment surveys of an APE surrounding Noakes Pond, a historic age livestock pond in Contra Loma Regional Park.

NAVAL BASE SAN DIEGO P-1031 MICROGRID AND BACKUP POWER PROJECT
California Energy Commission, 2024

This CEQA project was prepared for the California Energy Commission for a proposed Microgrid and Backup Power Project. It involved the archaeological and built environment survey of a portion of Naval Base San Diego in the City of San Diego. It included the conducting of complex in-depth research for multiple historic age properties.

MCB CAMP PENDLETON HAYBARN ENERGY RELIABILITY CENTER PROJECT
California Energy Commission, 2024

This CEQA project was prepared for the California Energy Commission for a proposed LDES battery backup power project on Marine Corps Base Camp Pendleton. It involved the archaeological and built environment survey of portions of Camp Pendleton and included the conducting of complex in-depth research for multiple historic age properties.

STOCK PONDS REHABILITATION PROJECT
Contra Costa Resources Conservation District, 2023

This Class III Section 106 project was prepared for the Contra Costa Resources Conservation District in partnership with the USDA Natural Resources Conservation Service, and in consultation with the Bureau of Reclamation and East Bay Regional Parks District. It involved the archaeological and built environment survey of APEs surrounding three historic age livestock ponds and multiple access roads in Las Trampas Wilderness Regional Preserve and other locations in Contra Costa County.

EAST ROAD STORAGE PROJECT
California Energy Commission, 2023

This CEQA project was prepared for the California Energy Commission in Mendocino County. It involved the archaeological and built environment survey of a PG&E property and adjacent properties prior to constructing a battery storage project. This included the evaluation of seventeen historic age-built environment properties following complex in-depth research for each historic age property.

EL DORADO PARK PROJECT
Mountains Conservancy, 2023

This project involved the evaluation of proposed alterations to a Los Angeles County Flood Control Channel, and the evaluation of the FC channel in accordance with NRHP guidelines. It was prepared for review by the United States Army Corps of Engineers and was further prepared in accordance with NEPA and Section 106 guidelines.

COPPER BASIN DAM AND ACCESS ROAD PROJECT
MWD-Los Angeles, 2022

This CEQA project was prepared for the Metropolitan Water District, Los Angeles California. It involved the survey and evaluation of various access roads leading to Copper Basin Dam and Reservoir, and their relationship to the NRHP eligible Colorado River Aqueduct.

WATERMAN CANYON AND OTHERS
DPW-San Bernardino County, 2021

This CEQA project was prepared for the County of San Bernardino Department of Public Works, to evaluate the potential cultural impacts of roadway maintenance chip-seal projects in the vicinity of Waterman Canyon, San Bernardino, California.

IRWIN ROAD AND OTHERS
DPW-San Bernardino County, 2021

This CEQA project was prepared for the County of San Bernardino Department of Public Works. It included field surveys and in-depth historical research to evaluate the impacts of 41+ miles of roadway maintenance chip-seal projects and the installation of ADA Ramps and Curbs in the vicinity of Barstow, Hinkley, Daggett and Yermo, CA.

WARM CREEK BASINS
DPW-San Bernardino County, 2021

This CEQA project was prepared for the County of San Bernardino Department of Public Works. It evaluated potential cultural impacts involving the proposed sale of County owned surplus flood control properties in the vicinity of San Bernardino, California.

CUDAHY DPSS BUILDING PROJECT
DPW-Los Angeles County, 2021

This CEQA project was prepared for Los Angeles County Public Works in preparation of a Notice of Exemption package for the proposed demolition of the Cudahy Department of Public Social Services District Office. This included the architectural and historical evaluation of a 1950s Mid-Century Modern office building in the City of Cudahy, CA.

SAN GABRIEL TOWER PROJECT
Metropolitan Water District, 2021

This project included the CEQA evaluation of proposed alterations to San Gabriel Tower and Spillway, historic 1937-1939 components of the Colorado River Aqueduct and the Colorado River Aqueduct Upper Feeder System. This detailed report was prepared for the Metropolitan Water District of Southern California.

CABALLERO CREEK PROJECT
Mountains Conservancy, 2020

This involved the evaluation of proposed alterations to a Flood Control Channel, and the evaluation of the FC channel in accordance with NRHP guidelines. It was prepared for review by the United States Army Corps of Engineers and was further prepared in accordance with NEPA and Section 106 guidelines.

MARTIN RANCH PROJECT
US Army Corps of Engineers, 2020

This NEPA project involved the preparation of a lengthy background history including settlement, agriculture, and transportation for the project Study Area in the vicinity of Corona, CA. It was prepared for Section 106 4(f) review by the United States Army Corps of Engineers.

STAGECOACH SOLAR PROJECT
California State Lands Commission, 2020

This CEQA project involved the preparation of a lengthy background history including settlement, mining, agriculture, transportation, and the military for the project Study Area in the vicinity of Lucerne Valley, CA. It involved preparing various linear feature DPR 523's, and the CRHR evaluation of a set of historic roads and trails within or in the vicinity of the Study Area.

LOGANDALE TRAILS ACCESS ROAD PROJECT

DJ&A, 2020

This NEPA project involved the preparing of a lengthy background history including settlement, agriculture, and transportation for the project Study Area in the vicinity of Logandale, NV. It was prepared for Section 106 4(f) review by various Nevada federal and state agencies.

CARBON CANYON FLOOD CONTROL CHANNEL IMPROVEMENT

DPW-San Bernardino County, 2019

Prepared report in accordance with NEPA, Section 106 4(f), CEQA, and County of San Bernardino General Plan guidelines, for review and approval by the review by the United States Army Corps of Engineers.

HISTORICAL OVERVIEW: FIVE HISTORIC ROADS WITHIN GLEN HELEN REGIONAL PARK

DPW-San Bernardino County, 2017

This study included massive historical and legal research regarding roads in the immediate vicinity of Glen Helen Regional Park. It was specifically requested by County of San Bernardino DPW Design for use in future R/W negotiations with various federal, state, and local agencies.

DOLA AND LANZIT BRIDGE REPLACEMENT PROJECT

DPW-San Bernardino County, 2014

This Built Environment study and report included a detailed history of California Hwy 66/NTH between Daggett and Mountain Springs Road.

It was reviewed and approved by both Caltrans District 8 and the SHPO. This report is being used by various consultants to prepare a host of other cultural resource reports on CA Highway 66/NTH.

CASA RAMONA HABS DOCUMENTAION PROJECT

City of San Bernardino Development Services, 2007

Project involved the in-depth photo recordation and historical documentation of the Casa Ramona Elementary School. It included the detailed recordation, in general accordance with Historic American Buildings Survey guidelines, of a unique cultural resource.

SELECT NHPA, NEPA, AND SECTION 106-4(F) PROJECTS

Mr. Hatheway has prepared numerous reports and documents in accordance with Federal, NEPA, NHPA, and Section 106 4(f) guidelines. This includes Phase I, Phase II, and Phase III recordation and evaluation of resources in accordance with National Register of Historic Places (NRHP) guidelines. A select number of reports prepared in accordance with federal guidelines in the last ten years include the following. **Note:** A number of these reports are jointly prepared NEPA/CEQA compliance documents.

- *Cultural Resources Review & Recommendations Letter/Report for the Waterman Basins and Spreading Grounds Project*, Prepared by: Roger Hatheway and Jesse Yorck, Prepared for: Environmental Management Division, Department of Public Works, San Bernardino County, March 25, 2019.
- *Phase I Cultural Inventory and Cultural Resources Compliance Report for the West Fontana Channel Improvement Project,* Prepared by: Roger Hatheway and Jesse Yorck, Prepared for: Environmental Management Division, Department of Public Works, San Bernardino County, August 2018.
- *Cultural Resources Investigation Essex Overhead Quarry Project,* Prepared by: Cunningham, Hatheway and Mason, Prepared for: Department of Public Works, San Bernardino County, August 2018.
- *Phase I Cultural Inventory and Cultural Resources Compliance Report for the Hawker Crawford Diversion Storm Drain Project, City Of Rancho Cucamonga, San Bernardino County, California*,

Prepared by: Jesse Yorck and Roger Hatheway, Prepared for: Environmental Management Division, Department of Public Works, San Bernardino County, July 2018.

SELECT CEQA, CRHR, AND COUNTY/LOCAL PROJECTS

Mr. Hatheway has prepared numerous reports and documents in accordance with State (CEQA), and various local (County and City) guidelines, including Phase I and Phase II recordation and evaluation of resources in accordance with California Register of Historical Resources (CRHR) guidelines. A select number of reports prepared in accordance with state and local guidelines within the last ten years include the following.

- *Cultural Review: Findings and Conditions to Avoid an Effect/Change for Various NTH Overlay, Chip, and Scrub Seal Projects from Lavic Road to 10.05 Miles East of Kelbaker Road,* Prepared by: Roger Hatheway and Jesse Yorck, Prepared for: Environmental Management Division, Department of Public Works, San Bernardino County, February 21, 2019.
- *Cultural Review: Findings and Conditions to Avoid an Effect/Change for the Cadiz Road Scrub Seal Project,* Prepared by: Roger Hatheway and Jesse Yorck, Prepared for: Environmental Management Division, Department of Public Works, San Bernardino County, February 18, 2019.
- *Cultural Review: Findings and Conditions to Avoid an Effect/Change for the Green Valley Lake Road and Other Roads Asphalt Overlay Project, Vicinity of Green Valley Lake,* Prepared by: Roger Hatheway and Jesse Yorck, Prepared for: Environmental Management Division, Department of Public Works, San Bernardino County, February 14, 2019.
- *Shay Road Historical Summary and Historical Documents of Interest*, Prepared by: Roger Hatheway and Jesse Yorck, Prepared for: Environmental Management Division, Department of Public Works, San Bernardino County, December 26, 2018.
- *Cultural Review: Etiwanda Creek Surplus Property – CEQA Request*, Prepared by: Roger Hatheway and Jesse Yorck, Prepared for: Environmental Management Division, Department of Public Works, San Bernardino County, December 18, 2018.

SELECT TECHNOLOGY & ENGINEERING PROJECTS

As an undergraduate, Mr. Hatheway majored in the American History of Technology, developing a broad-based background in all aspects of the growth and development of technological systems, theories, and practices. His graduate education expanded this broad-based background to include the History and Philosophy of Science while continuing to focus on American technology. Select technology & engineering cultural resource evaluation reports include the following.

- Cultural Review: Findings and Conditions to Avoid an Effect for the Valley Center Road and Other Roads Maintenance Project, Vicinity of Newberry Springs, February 18, 2018.
- A National Register Determination of Eligibility Report and Archaeological Survey of the Keller Peak California Highway Patrol Communications Tower Including a Determination of Effects Statement for the Adjacent Keller Peak Fire Lookout Tower, 2008.
- An Historical, Architectural, and Archaeological Survey and National Register Evaluation of “Ski Hill” San Bernardino National Forest, Green Valley Lake, 2008.
- National Register of Historic Places and California Register of Historical Resources Determination of Eligibility Statement for a Portion of Old Highway 99, Prepared for Aspen Environmental Group, 2007.

SELECT COUNTY OF SAN BERNARDINO LINEAR FEATURE PROJECTS

As a Principal Investigator for the County of San Bernardino, Department of Public Works, Mr. Hatheway has researched and evaluated dozens of linear features using all forms of historic maps, public records, photographs, and the written record. Field survey experience includes the recognition, identification, and mapping of virtually every major type of building, object, feature, prehistoric archaeological site, historic archaeological site, and all types of linear features. Select projects include the following.

- Cultural Review: Spring Valley Lake ADA Ramps, July 1, 2018.
- Cultural Review: Findings and Conditions to Avoid an Effect for the Pioneertown Area Chip Seal Project, Vicinity of Pioneertown, CA, April 2, 2018.
- Cultural Review: Findings and Conditions to Avoid an Effect for the Parker Dam Road & Others (Yard 2) Road Maintenance Project, Vicinity of Big River, September 11, 2017.
- Cultural Review: Findings and Conditions to Avoid an Effect for the Main Street & Other Roads Project, Vicinity of Barstow, May 5, 2017.
- Pioneertown & Other Roads Project, April 8, 2017.

MINING RELATED PROJECTS

Mr. Hatheway has conducted surveys of mines and mining-related properties on public lands since 1980. He has extensive research experience and a major private mining library and map collection. Select projects include:

Select Mines and Mining Related Studies on Federal Land

Hatheway surveys and research of mines and mining related activities on federal lands include the following.

- Edwards AFB - 1980
  - A Cultural Resource Overview and Preliminary Architectural/Historical Survey. This included aerial (helicopter) and ground survey identification of numerous mines and mining related sites including access roads.
- China Lake Naval Weapons Center - 1980
  - A Cultural Resource Overview and Preliminary Architectural/Historical Survey. This included aerial (helicopter) and ground survey identification of numerous mines and mining related sites including access roads.
- Survey of California U.S. Highway 66 - 1999 to 2020 (Mining Related Sites -Towns and Roads)
  - From 1999 to 2020, Mr. Hatheway surveyed portions of California U.S. Highway 66. Major portions of the underlying right-of-way are on BLM lands, and these portions were surveyed in accordance with various agreements and approvals made with the Needles BLM Field Office.
- Mojave National Preserve - 2007
  - Preparation of RS2477 documentation report entitled: Mojave National Preserve County Roads Report: Part 1: Historical Overview and Part 2: Focused Histories of Individual Roads Relative to the Development of the Existing County of San Bernardino Maintained Roadway System Within or Adjacent to the Boundaries of the Mojave National Preserve. Prepared by Roger G. Hatheway, Cultural Resources Specialist, County of San Bernardino, Department of Public Works.

Select Mines and Mining Related Studies on Private Lands

Hatheway surveys and research of mines and mining related activities on private properties include the following.

- *Historical and Archaeological Survey of Krumsick Subject Property #1, Town of Apple Valley, County of San Bernardino, CA,* Prepared for H. Krumsick, 2006.
- *Historical and Archaeological Survey of Krumsick Subject Property #2A, Town of Apple Valley, County of San Bernardino, CA,* Prepared for H. Krumsick, 2006.
- *Historical and Archaeological Survey of Krumsick Subject Property #2B, City of Victorville, County of San Bernardino, CA,* Prepared for H. Krumsick, 2006.

HABS/HAER MITIGATION PROJECTS

Mr. Hatheway has prepared numerous Historic American Buildings Survey (HABS) and Historic American Engineering Record (HAER) outline format documentation reports.

Chicken of the Sea Cannery HABS Outline Format Documentation (2008). As prepared for ICF/Jones & Stokes, this project involved the in-depth photo recordation of the Chicken of the Sea Cannery, Terminal Island, California.

- City of San Bernardino Municipal Water Department Perris Hill Engineer's Residence HABS Outline Format Documentation Report (2008). This project involved the in-depth photo recordation and historical documentation of the City of San Bernardino Water Department Perris Hill Engineer's Residence. It included the detailed recordation, in general accordance with Historic American Buildings Survey guidelines, of a unique cultural resource.
- StarKist Tuna Cannery HABS Outline Format Documentation (2008). As prepared for ICF/Jones & Stokes, this project involved the in-depth photo recordation of the StarKist Tuna Cannery, 1050 Ways Street, Terminal Island, California. It included the detailed recordation, in general accordance with Historic American Buildings Survey guidelines, of a unique cultural resource.

Christian S. Huntley

VICE PRESIDENT / BIOLOGICAL RESOURCES

PROFILE: Mr. Huntley is the Director of Biological Resources at Aspen and has been with the company for over 24 years. He acts as the Program Manager or Deputy for several on-call contracts and has extensive experience conducting surveys for sensitive species and managing CEQA/NEPA projects in California, Nevada, and Arizona. Mr. Huntley has been the lead biologist and regulatory specialist for numerous infrastructure projects including solar thermal, photovoltaic, natural gas and wind power generation facilities, and many large-scale transmission and flood control projects. He worked as part of an interagency team with the CDFW, USFWS, BLM, and CPUC to develop nesting bird management strategies for large construction projects and worked with the USFWS, BLM, CDFW, and CEC to address impacts to birds from landscape level solar energy projects.

EDUCATION:

- Graduate Studies, Biology, California State University Northridge
- BA, Biology, University of California at Santa Cruz, 1992

PROFESSIONAL EXPERIENCE

FOUNTAIN WIND ENERGY PROJECT

California Energy Commission, 2022-2024

The Fountain Wind Energy Project is a proposed wind energy generation development in unincorporated Shasta County, that would construct up to 48 wind turbines with a nameplate generating capacity of up to 7.2 megawatts (MW) each, and ancillary facilities. This highly controversial project has been denied by the Shasta County Board of Supervisors twice. Mr. Huntley is the ***Senior Biologist and Issue Area Specialist*** for this project, responsible for agency coordination and technical analysis of project impacts to biological resources. The site is within the overlapping range of federally listed Northern Spotted owl and California spotted owl, which is proposed for federal listing.

BHE GEOTHERMAL PROJECTS

California Energy Commission, 2023-2025

The BHE Geothermal Projects, Elmore North, Morton Bay, and Black Rock, are located within the Salton Sea Known Geothermal Resource Area located near Calipatria, Imperial County. The Projects include three 157 megawatt (gross) and 140megawatt (net) renewable geothermal power plant and related facilities. Mr. Huntley is the ***Senior Biologist and Issue Area Specialist*** for the Preliminary Staff Assessment document (CEQA-equivalent) for the three projects, which shared construction staging, parking areas, and facilities. Known resources in the area include marshland habitat, burrowing owls, desert pupfish, Yuma Ridgeway's rail, California black rail, and numerous other bird species.

LONG DURATION ENERGY STORAGE CONTRACT

California Energy Commission, Contract #300-22-003

Mr. Huntley served as the ***Senior Biologist and Issue Area Specialist*** for biological resources on the following non-lithium, long duration energy storage projects:

- Camp Pendleton Project, MCB Camp Pendleton, CA (2024). Preparation of the IS under CEQA and EA under NEPA.
- Valley Children's Hospital Project (2024-present). Preparation of the IS required under CEQA for this battery energy storage project.

- Compass Battery Storage Project (2024-present). Preparation of the IS required under CEQA for this battery energy storage project.

BOWERS BACKUP GENERATING FACILITY
California Energy Commission, 2022-2023

The project proposes to develop an emergency backup generating facility at a site in Santa Clara, CA, in order to provide uninterrupted power supply to its tenant's servers at the Bowers Data Center. As the lead agency, CEC prepares the CEQA document with support by Aspen. Mr. Huntley was the ***Senior Biologist and Issue Area Specialist*** for biological resources on this project.

PALEN SOLAR ELECTRIC GENERATING STATION PROJECT
California Energy Commission, Biologist (2013-2015)

Mr. Huntley was one of the primary authors who prepared the biological resources analysis of the Staff Assessment for this 3,794-acre solar thermal solar energy project located east of Palm Desert. The project consisted of two 250 MW power-generating units, each consisting of a dedicated field of approximately 85,000 heliostats, a 750-foot solar tower and receiver, and a power block.

HIDDEN HILLS SOLAR ENERGY GENERATING STATION
California Energy Commission, Biologist (2012-2013)

Mr. Huntley was one of the primary authors who prepared the biological resources analysis of the Staff Assessment for this 3,277-acre solar thermal energy project located in Inyo County, California. The proposed project was composed of two solar fields, each one containing approximately 85,000 heliostats and each capable of generating 270 megawatts (MW). Key issues of this project involved extensive analysis and research on potential impacts to migratory birds from exposure to elevated levels of solar energy produced by the heliostats. Other important considerations included impacts to desert tortoise, Nelson's bighorn sheep, burrowing owl, golden eagle, and rare plants from loss of groundwater.

CALICO SOLAR PROJECT (FORMERLY SES SOLAR ONE PROJECT)
California Energy Commission, Biologist (2009-2010)

Mr. Huntley was one of the primary authors who prepared the Staff Assessment/EIS for this solar energy project proposed by Calico Solar, LLC. The proposed project would have been in San Bernardino County and included the construction and operation of an 850 MW Stirling engine solar generation facility, which would include approximately 34,000 SunCatcher solar dish Stirling systems on approximately 8,230 acres.

PALMDALE HYBRID POWER PLANT
California Energy Commission, Biologist (2009-2010)

Mr. Huntley prepared the biological resources analysis of the Staff Assessment for this power generation project proposed by the City of Palmdale. The proposed project would be in northern Los Angeles County and includes the construction and operation of a 570 MW hybrid combined-cycle and solar thermal electrical generation facility, which would include an approximate 333-acre plant site and a 35.6-mile transmission line to connect the project to the existing Southern California Edison (SCE) Vincent Substation, as well as four pipelines to transport water, gas, and wastewater (ranging from 1.5 to 7.4 miles in length).

RICE SOLAR ENERGY PROJECT
California Energy Commission, Biologist (2009-2010)

Mr. Huntley con-tributed to the biological resources analysis of the Staff Assessment/EIS prepared for this solar energy project proposed by Rice Solar Energy, LLC (a wholly owned subsidiary of SolarReserve, LLC). The proposed project would include a 150 MW solar generation facility consisting of up to 17,500 solar-tracking

heliostats, a central tower, and associated infrastructure and appurtenant structures. The solar field site would be located on approximately 1,410 acres of privately owned land in eastern Riverside County.

EMERGENCY SITING TEAM POWER PLANT DEVELOPMENT

California Energy Commission, Compliance Project Manager

For two years, Mr. Huntley's duties included management of technical staff for the completion of CEQA equivalent environmental permitting for over nine new emergency power plants, review of applicant submittals, drafting of Memoranda of Understanding with Chief Building Officials, conducting audits of building officials, and coordinating with affected agencies to resolve concerns with potential resource impacts. Other duties included maintaining contractor construction milestones, compliance monitoring and reporting, development of mitigation measures and conflict resolution for power plant compliance issues.

COASTAL POWER PLANT STUDY

California Energy Commission, Deputy Project Manager/Biologist

Mr. Huntley conducted biological surveys at 21 coastal power plants as part of the CEC's coastal power plant study. Site visits characterized habitat within the footprint of the power plant, landscaping, and identified potential environmental and permitting issues associated with potential expansion of the power plants.

HYDROELECTRIC POWER PLANT INVENTORY STUDY

California Energy Commission, Deputy Project Manager/Natural Resources Analyst

Mr. Huntley coordinated a team that collected power and environmental data on over 200 hydroelectric power plants located in California.

WILDFIRE RISK REDUCTION, RELIABILITY, AND ASSET PROTECTION (WRAP) PROJECT

Trinity Public Utilities District/Western Area Power Administration, 2018-present

Mr. Huntley is the senior project biologist for the WRAP Project, which has been proposed to expand the rights-of-way (ROW) of TPUD and WAPA utility lines to reduce risk of catastrophic wildfire in Trinity County. Mr. Huntley worked to develop the project from the ground up by coordinating with the state and federal land management agencies and resource agencies from the project initiation. Mr. Huntley trained and led a team of senior botanists and wildlife biologists to conduct approximately 300 miles of habitat-based surveys along the ROW in difficult terrain and on a condensed schedule. Mr. Huntley and his team prepared the Biological Resources Report, Aquatic Resources Delineation and EIR/EIS and will continue to support the project by drafting the BA and conducting permitting consultation with CDFW, USFWS, and RWQCB.

MCCULLOUGH-VICTORVILLE TRANSMISSION LINES 1 & 2 BIOLOGICAL AND CULTURAL RESOURCES SUPPORT

Los Angeles Department of Water and Power, 2020-present

Mr. Huntley serves as the Senior Technical Lead for Biological Resources for this transmission line project. These transmission lines extend approximately 165 miles from McCullough Substation, located outside of Henderson, Nevada, to Victorville Substation in Victorville, California. He leads the Aspen team conducting research, compiling biological resource data for the proposed boring locations, and preparing a concise report that highlights the sensitive resources known to occur in the region along with avoidance and minimization measures to reduce impacts to these resources during the borings. Measures include pre-construction inspections of the boring sites to micro-site the rigs to avoid desert tortoise burrows or other sensitive resources.

ON-CALL SERVICES CONTRACT

Metropolitan Water District of Southern California, 2019

Mr. Huntley is the Program Manager for this contract and is responsible for the daily management of biological resource tasks and environmental permitting for this multi-year, multi-task, contract. He has supported over 16 Task orders and completed biological surveys, monitoring, and CEQA tasks for metropolitan.

AIR QUALITY AND ENVIRONMENTAL SERVICES AGREEMENT ON-CALL CONTRACT

Los Angeles Department of Water and Power, present

Mr. Huntley serves as the Deputy Program Manager for this contract and is responsible for the daily management of biological resource tasks and environmental permitting for this multi-year, multi-task, contract. He manages teams of in-house staff and sub-contractors to support LADWP projects. Project budgets range from a few thousand dollars to over nine million dollars.

MISCELLANEOUS ENVIRONMENTAL SERVICES CONTRACTS

U.S. Army Corps of Engineers, 1995-2012

Mr. Huntley served as Deputy Program Manager for two consecutive multi-year environmental services contract with the Corps' Los Angeles District. Mr. Huntley was responsible for supporting the Program Manager with agency coordination, leading survey teams, managing biological sub-contractors and preparing NEPA documents.

SAN GABRIEL TOWER & IMPROVEMENTS PROJECT

Metropolitan Water District of Southern California, 2018-present

Mr. Huntley is the lead Biologist providing CEQA and permitting services for improvements to the San Gabriel Tower, which regulates, and isolates flows from Morris Dam (and the Morris Reservoir) into the Monrovia Tunnel system. The water is then transported for treatment and delivery to Metropolitan customers in Los Angeles. The Project would lower the height of San Gabriel Tower and replace the original slide gates and actuators.

COLORADO RIVER AQUEDUCT REPAIR PROJECT

Metropolitan Water District of Southern California, 2018-present

As lead biologist/project manager, Mr. Huntley has supported Metropolitan on several repair and maintenance projects located along the Colorado River Aqueduct. This has included emergency repairs, barrel protection, and facility maintenance.

SAN DIEGO PIPELINE REPAIR PROJECT

Metropolitan Water District of Southern California, 2018-present

Mr. Huntley managed the field work for biological surveys and monitoring for a portion of the pipeline located in Temecula, CA.

BARREN RIDGE RENEWABLE TRANSMISSION PROJECT

Los Angeles Department of Water and Power/U.S. Forest Service, 2015-present

Mr. Huntley is managing and leading a team of biologists, paleontologists, and other technical staff to conduct pre-construction surveys, clearance surveys, nest monitoring, and reporting in support this 75 mile 230-kV transmission line project that crosses the Angeles National Forest. He manages the construction monitoring team and works closely with LADWP staff to support agency coordination. Some of the key issues on this project include potential impacts to Mojave ground squirrel, desert tortoise, arroyo toads, California condors, least Bell's vireo, California red-legged frogs, spotted owl, and a host of forest sensitive plant and wildlife species.

MCCULLOUGH-VICTORVILLE LINES 2 & 3 TRANSMISSION PROJECT

Los Angeles Department of Water and Power, 2004-present

Mr. Huntley is leading up a team of cultural and biological resource specialists to survey over 1,700 transmission towers located along an existing 165-mile transmission line between Victorville, CA, and Henderson, NV.

LITTLEROCK DAM AND RESERVOIR RESTORATION PROJECT EIR/EIS-BE/BA

Palmdale Water District/U.S. Forest Service, 2020-present

Mr. Huntley is the deputy project manager and project biologist for the sediment removal activities associated with the Littlerock Dam and Reservoir in the Angeles National Forest. Mr. Huntley developed project alternatives for sediment disposal while avoiding impacts to federally endangered arroyo toads. Mr. Huntley managed the sensitive species surveys and was the primary author of the biological resource section of the EIR/EIS, Management Indicator Species Report, Biological Evaluation and Biological Assessment. Currently Mr. Huntley is acquiring regulatory permits for compliance with Section 404/401 of the Clean Water Act and Section 1602 and 1605 of the California Fish and Game Code. He is currently directing a team of biologists during the construction of the facility.

MATILIJA DAM ECOSYSTEM RESTORATION PROJECT EIR

Ventura County Watershed Protection District, 2018-present

Mr. Huntley is the lead biological resource specialist for this Subsequent Environmental Impact Report SEIR analyzing the impacts and benefits from the removal of the Matilija Dam located in Ventura County, CA. The project would restore access to historic spawning habitat for southern steelhead and restore natural stream hydrology to the watershed.

COGSWELL RESERVOIR SEDIMENT REMOVAL PROJECT

Los Angeles County Public Works, 2019-present

Mr. Huntley has provided a variety of services including field surveys and the verification of existing studies for this large-scale sediment removal project. The project would remove 2.5 million cubic yards of sediment from the reservoir. Aspen has completed numerous tasks including a jurisdictional delineation, hydrology study, vegetation mapping, habitat restoration plan, a CEQA addendum, regulatory permit support, construction monitoring, and numerous other tasks.

SAWTOOTH RIDGE COMMUNICATION TOWER

California Department of General Services, 2018-present

As Lead Biologist, Mr. Huntley managed the preparation of an IS/MND and BA for a proposed California Highway Patrol communication tower near Needles, CA.

SAN ONOFRE NUCLEAR GENERATING STATION DECOMMISSIONING

California State Lands Commission, 2019

Mr. Huntley managed the biological resource group and provided technical analysis to evaluate impacts related to marine and terrestrial resources. The EIR evaluated impacts associated with the decommissioning of the San Onofre Nuclear Generating Station including removal of the offshore components.

THOUSAND PALMS WHITEWATER RIVER BASIN FLOOD CONTROL PROJECT SUBSEQUENT EIR/ SUBSEQUENT EIS

Riverside County, 2010-present

Mr. Huntley is the Project Manager and biological resource specialist for this Subsequent Environmental Impact Report (SEIR) / Subsequent Environmental Impact Statement (SEIS) for a proposed flood control improvement project located in the Thousand Palms area of Riverside County. The proposed project includes a series of levees and channels to direct stormwater flows from the Indio Mountains away from developed areas and into an existing stormwater conveyance system, to protect community areas from flooding hazards.

NEWHALL RANCH PROJECT

CALIFORNIA DEPARTMENT OF FISH AND GAME, 2010

Mr. Huntley provided biological expertise and assisted CDFG staff in reviewing and revising the EIR/EIS for the Newhall Development Plan EIR/EIS in Santa Clarita. Primary issues concern the land use conversion of several thousand acres of wild lands and agricultural areas located in and adjacent to the Santa Clara River.

SANTA CLARA RIVER LEVEE (SCR-3) IMPROVEMENT PROJECT

Ventura County Watershed Protection District, 2004-2005

Mr. Huntley was the Lead Biologist preparing the biological resources section of the EIR a levee improvement project along the Santa Clara River in Ventura. He also managed the team of monitors during construction of the levees.

TRANSPACIFIC FIBER OPTIC CABLE SYSTEMS PROJECT

City of Hermosa Beach, 2004-2005

Mr. Huntley was the lead biologist and deputy project manager for this transpacific offshore cable EIR. The project included the placement of a fiber optic cable, beach landings, and terrestrial conduit system.

SANTA MONICA MOUNTAINS NORTH AREA PLAN UPDATE AND COMMUNITY STANDARDS DISTRICT (EIR)

Los Angeles Department of Regional Planning, 2004-2005

Mr. Huntley was the lead biologist who coordinated with and prepared the biological resource section to update the North Area Plan. He was part of a team of biologists who developed guidance on proposed land development standards and methods to reduce or avoid impacts to natural resources.

SANTA CLARA RIVER LEVEE (SCR-1) PROJECT

Ventura County Watershed Protection District, 2004-2005

Mr. Huntley was the Lead Biologist preparing the biological resources section of the EIR for a levee improvement project along the Santa Clara River in Ventura. He was also part of an interagency team working to develop educational benefits to the Rio School district for a new elementary school being constructed adjacent to the levee.

SPECIAL CERTIFICATIONS

- SWPPP trained 2006
- CDFW Scientific Collecting Permit for pond turtle and garter snake.
- Desert Tortoise Handling Workshop, Ridgecrest California 2001
- California Energy Commission Outstanding Performance Award, 2001
- Certified Caltrans Horizontal Directional Drilling Inspector 2001
- CEC Expert Witness Training 2001 and 2013
- Railroad Right-of-Way Safety Training 2002
- Small boat handling, licensed and certified since 1993
- Research Scuba-diving certification and training since 1989

Tatiana W. Inouye

SENIOR ENVIRONMENTAL PLANNER
LAND USE AND PUBLIC POLICY

Aspen environmental group

PROFILE: Ms. Inouye is an environmental professional with an extensive multidisciplinary background in the biological and environmental sciences. Ms. Inouye has over 15 years of experience preparing environmental documentation in compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). Her work has largely involved public infrastructure projects, specifically electrical generation, storage, and transmission, with considerable experience in renewable energy generation. Ms. Inouye specializes in the areas of land use, planning, and public policy; agriculture and forestry resources, public services, and recreation.

EDUCATION:

- Master of Environmental Science and Management, University of California, Santa Barbara, 2004
- BS, Biology, Cum Laude, Xavier University, 1999

PROFESSIONAL EXPERIENCE

ENERGY PROJECTS

ENVIRONMENTAL AND AIR QUALITY SERVICES ON-CALL CONTRACT

Los Angeles Department of Water and Power, 2017-present

Under Aspen's on-call contract with the Los Angeles Department of Water and Power (LADWP), Ms. Inouye has provided project management assistance and technical expertise on multiple task orders, including the following:

- **Bouquet Inlet/Outlet Pipeline Gate Valve and Vacuum Breaker Replacement Project (2023-present).** LADWP is proposing to conduct critical maintenance work along the Bouquet Inlet/Outlet Pipeline within Angeles National Forest. The Bouquet Inlet/Outlet Pipeline is part of the Los Angeles Aqueduct and is essential infrastructure to providing water to the City of Los Angeles. Ms. Inouye will prepare environmental documentation for compliance with environmental review under CEQA, and will provide any support requested by LADWP for Forest Service environmental review under NEPA.
- **Angeles National Forest Operations and Maintenance Plan (2022-present).** Aspen is assisting LADWP with the development of an Operations and Maintenance Plan (O&M Plan) for activities conducted on LADWP Water System and Power System facilities within Angeles National Forest. Ms. Inouye is developing the O&M Plan descriptions of the specific water and power infrastructure, and will coordinate with the Biological and Cultural Teams to identify Resource Protection Measures suitable for specific maintenance activities.
- **Support Services for the Solar Installation at the Burnt Peak Site (2022-present).** LADWP has proposed installation of solar panels to provide power to the Burnt Peak Microwave facility located on NFS lands of the Angeles National Forest. Aspen's GIS Team conducted a seen area analysis using the U.S. Forest Service guidelines for conducting this study. Ms. Inouye incorporated the findings of the seen area analysis into a visual resources report that evaluated the degree of change anticipated to occur and any contribution to a drop in the area's Scenic Integrity Objectives.
- **Barren Ridge Renewable Transmission Project (BRRTP)- Visual Impacts Analysis and Compensation Options Strategy and Support (2022-present).** Aspen is supporting LADWP's efforts to satisfy conditions of approval for the BRRTP to address visual resource impacts. Aspen will conduct seen area mapping and analysis of the BRRTP transmission system based on tower heights and new infrastructure. Ms. Inouye will coordinate with the Aspen GIS Team to evaluate the findings of the seen area analysis, which will be used to calculate total compensation dollars required for the project.

- **Distributing Station 104 CEQA Support (2022-present).** LADWP proposes to construct a 30 Megavolt Ampere distribution station in the Pacific Palisades community of the City of Los Angeles. Aspen provided support with the public scoping process and facilitated a virtual public meeting. As deputy project manager and technical author, Ms. Inouye developed the project description and content for the Notice of Preparation. The project is currently on-hold pending revisions to the site design.
- **GIS Standardization and Integration Support (2022-2024).** Aspen supported LADWP's implementation and optimization of spatial data that is collected through an internal data repository. In collaboration with Aspen's GIS Team and LADWP Staff, Ms. Inouye and Ms. Vahidi (Contract Manager) developed a guidance manual that will be used to communicate LADWP's standards for data collection, acquisition, and storage.
- **CEQA Knowledge Transfer Training (2022-2023).** Ms. Inouye worked with four other Aspen Team members to prepare and conducted two 2-hour training modules to instruct LADWP Environmental Planning & Assessment Office staff on: 1) preparation of CEQA Initial Study Environmental Checklist Form; and 2) Seen-Area and Visual Assessment per U.S. Forest Service requirements.
- **Liquified Air Energy Storage Project (LAES) (2020).** Aspen provided CEQA compliance support services to LADWP for this long-duration energy storage system. LAES would serve as a pilot project that would allow LADWP to evaluate the compatibility of this system with other future sites within the electricity grid. Ms. Inouye prepared multiple technical sections of the Initial Study that was used by LADWP to support a CEQA Categorical Exemption for construction and operation of the project.
- **Barren Haskell Line 1 Project (2017-2018).** Aspen provided NEPA and CEQA support for the proposed modifications to the approved Barren Ridge Renewable Transmission Project (BRRTP). Ms. Inouye provided technical assistance with preparing a Supplemental Information Report for the USDA Forest Service, Angeles National Forest, which described the modifications to the previously approved project. Ms. Inouye also assisted with preparing an impact summary report that was requested by the Bureau of Land Management (BLM) in support of their Plan of Development for the proposed modifications. Ms. Inouye further supported the CEQA Addendum to the BRRTP Final EIS/EIR through the preparation of revised impact summaries.

TECHNICAL ASSISTANCE TO THE CALIFORNIA ENERGY COMMISSION

California Energy Commission, 2001-present

Aspen has assisted the CEC in evaluating the environmental and engineering aspects of new power plant applications throughout the State under five separate contracts. Ms. Inouye has served as Staff extension for the preparation of special studies as well as land use, socioeconomics and environmental justice, and alternatives analyses. Her specific projects are listed below.

SITING, TRANSMISSION, AND ENVIRONMENTAL PROTECTION (STEP) PEAK WORKLOAD, INCLUDING NON-LITHIUM LONG DURATION ENERGY STORAGE

(Contract #700-18-001: 10/1/2018 through 9/30/2023; Contract #700-22-003: 9/14/2022 through 8/31/2022; Contract #700-22-005: 8/30/2023 through January 31, 2025)

- **Fountain Wind Project (2022-present).** Ms. Inouye is a technical specialist providing environmental analysis for this 205-MW wind project proposed in Shasta County, which is the first wind project to apply for licensing through CEC's "opt-in" certification process. Ms. Inouye has prepared the Staff Assessments/EIR sections for: Land Use and Agriculture, Alternatives, and Socioeconomics/Environmental Justice.
- **Soda Mountain Solar Project (2024-present).** Ms. Inouye is a technical specialist providing environmental analysis for this 300-MW photovoltaic and battery energy storage system proposed in San Bernardino County, to be located on land managed by the Bureau of Land Management. The applicant has applied for licensing through CEC's "opt-in" certification process. Ms. Inouye is preparing Staff Assessments/EIR sections for Land Use (including Agriculture and Recreation).
- **Compass Energy Storage Project (2024-present).** Ms. Inouye is a technical specialist providing environmental analysis for this 250-MW battery energy storage system proposed in the City of San Juan Capistrano. The

applicant has applied for licensing through CEC's "opt-in" certification process. Ms. Inouye is responsible for evaluating application completeness review of the net positive economic benefit to the local government, per CCR title 20, section 1877(f) and section 1879(a)(7), and to develop subsequent data requests for any inadequate responses from the applicant.

- **AVAIO Pittsburg Backup Generating Facility (2024-present).** Ms. Inouye is a technical specialist for this Small Power Plant Exemption (SPPE) EIR, which is being prepared by the CEC to evaluate the impacts from the installation and use 37 three-MW diesel fired generators that would provide backup emergency generation for a proposed data center in the City of Pittsburg, California. Ms. Inouye is preparing the Land Use and Recreation analyses.
- **Front of the Meter, Non-Lithium-Ion LDES to Support Critical Energy Resilience for Department of Defense (2023).** Aspen prepared an IS/MND and EA to evaluate the impacts of a proposed energy storage facility at Marine Corps Base Camp Pendleton. Ms. Inouye provided support to the CEC and Aspen project management by developing the project description and preparing subsequent data requests to the applicant.
- **Bowers Backup Generating Facility (2022-present).** Ms. Inouye is a technical specialist for this Small Power Plant Exemption (SPPE) EIR, which is being prepared by the CEC to evaluate the impacts from the installation and use 32 diesel fired generators (combined capacity up to 72 MW) that would provide backup emergency generation for a proposed data center in the City of Santa Clara. Ms. Inouye is providing support with the Population/Housing, Public Services, and Recreation analyses.
- **San Jose Data Center 04 (2022-present).** Ms. Inouye is a technical specialist for this Small Power Plant Exemption (SPPE) EIR, which is being prepared by the CEC to evaluate the impacts from the installation and use of 36 diesel fired generators (combined capacity up to 98 MW) that would provide backup emergency generation for a proposed data center in the City of San Jose. Ms. Inouye is providing support with the Population/Housing, Public Services, and Recreation analyses.
- **CA3 Backup Generating Facility Small Power Plant Exemption (2021-2022).** Ms. Inouye provided support to the Energy Commission as a Technical Specialist for the Agriculture, Land Use, and Recreation sections of an EIR for a nearly 470,000 square foot four-story data center and the associated new 100 megavolt amperes (MVA) electrical substation. Key issues addressed by Ms. Inouye included consistency of the proposed facility with City of Santa Clara zoning requirements for building height and property setbacks.

STEP PLANNING SUPPORT

Contract #700-22-004: 10/31/22 through 4/30/26

- **2025 SB 100 Joint Agency Report and Transmission Evaluation (2024).** Ms. Inouye conducted key research on U.S. Bureau of Land Management plans and policies that pertain to SB 100 considerations. This research was incorporated into the CEC's supporting studies and summaries for the 2025 SB 100 Joint Agency Report.
- **Transmission Corridor Study- California's North Coast (2024).** Ms. Inouye provided guidance in developing methods for the identification and analysis of federal, State, and local lands within the study area. Ms. Inouye researched key land management issues, such as Wild and Scenic Rivers and U.S. Forest Service Scenic Integrity Levels.

TECHNICAL ASSISTANCE ON-CALL CONTRACT TO SUPPORT THE ELECTRIC PROGRAM INVESTMENT CHARGE (EPIC) PROGRAM

Contract #300-15-003: 4/1/16 through 3/30/22

- **CEQA Adequacy Reviews.** Ms. Inouye provided support to the Energy Commission in conducting CEQA adequacy reviews of grants and proposals in the areas of energy efficiency, energy generation, energy infrastructure, energy deployment, and market deployment. Her reviews included the following research and development proposals (technical and CEQA adequacy evaluation): (1) Production Scale-Up for Clean Energy Technologies, and (2) Bringing Rapid Innovation Development to Green Energy (BRIDGE) - Energy Storage.

STEP PEAK WORKLOAD

Contract #700-11-027: 6/30/12 through 5/31/15

- **Alamitos Energy Center.** Ms. Inouye prepared the key components of the Land Use Assessment to facilitate the Energy Commission's review of the proposed 1,040 MW energy project located within the City of Long Beach. Key issues addressed by Ms. Inouye included a determination of the project's consistency with the California Coastal Act and the Local Coastal Program.

ENGINEERING & ENVIRONMENTAL TECHNICAL ASSISTANCE TO SUPPORT THE ENERGY FACILITY PLANNING AND LICENSING PROGRAM CONTRACT

(Contract #700-02-004; 6/30/03 through 3/30/06)

- **Update to the California Environmental Performance Report (2005).** Ms. Inouye conducted the analysis of a new portion of the Land Resources Chapter of the EPR, which addressed the siting and land use issues associated with renewable power. This analysis compared the land use and siting constraints associated with renewable power infrastructure such as wind and solar versus other forms of power infrastructure, such as gas pipelines, transmission lines, LNG facilities, and power plants. Ms. Inouye also provided editorial and technical assistance with the update to the Socioeconomics chapter of the EPR.
- **Out-of-State Power Generation and Imports: Water and Biological Resources (2004).** Ms. Inouye contributed to the research and analysis for this white paper, which discussed the impacts to water and biological resources from a variety of electricity sources that are generated for California consumption. This white paper was incorporated into the Electricity Environmental Performance Report.

PIER WIND TERMINAL DEVELOPMENT PROJECT

Port of Long Beach and U.S. Army Corps of Engineers, 2023-present

The Pier Wind Terminal Development Project has been proposed to support the State of California's goals for Offshore Wind production that were established in AB 525. The project involves the construction and development of a 400-acre terminal and transportation corridor at the Port of Long Beach for staging and integration (i.e., receiving, staging, storing and assembly) and floating foundation assembly of floating offshore wind turbine systems. The project is subject to both NEPA and CEQA regulatory review and compliance. Ms. Inouye is preparing the joint EIR/EIS technical analyses for Land Use (including Recreation and Coastal Access) and is contributing to the analyses for Socioeconomics and Environmental Justice.

CADEMO OFFSHORE WIND DEMONSTRATION PROJECT

California State Lands Commission and U.S. Department of Defense, 2023-present

The CADEMO Offshore Wind Demonstration Project has been proposed to support the State of California's goals for Offshore Wind production that were established in AB 525. CADEMO proposes to install and operate four floating offshore wind turbines along the coast of western Santa Barbara County at Vandenberg Space Force Base (VSFB). Each turbine would be capable of producing 12 to 15 MW renewable electricity. The project would include a new onshore electrical substation within VSFB that would connect to the offshore wind turbines via a subsea static cable. The project is subject to both NEPA and CEQA regulatory review and compliance. Ms. Inouye is preparing the joint EIR/EIS technical analyses for Land Use (including Recreation and Coastal Access) and is contributing to the analyses for Environmental Justice.

AB 525 STRATEGIC PLAN: PHASE 1 AND 2 ALTERNATIVE PORT ASSESSMENT REPORTS TO SUPPORT OFFSHORE WIND

California State Lands Commission (subconsultant to Moffatt & Nichol), 2022-2023

To comply with AB 525 (i.e., requires agencies to develop strategic plan for offshore wind development in federal waters), California State Lands Commission is conducting an analysis of the feasibility of, and potential locations for, port(s) to support offshore wind activities along the central to southern coast of California for the Morro Bay Wind Energy Area. Aspen's role in this analysis was to assess the visual, land use, and environmental justice

impacts associated with 12 Staging & Integration sites along the central CA coast (Phase 1), followed by a similar evaluation of Staging & Integration, Manufacturing, and Operations & Maintenance sites along the entire CA coast (Phase 2). Ms. Inouye participated in Project Workshops to identify major issues associated with the port sites, contributed to the Environmental Team's screening analysis, and assisted with determining the port sites' relative rankings.

BLUFF TRAIL BATTERY ENERGY STORAGE SYSTEM PROJECT

County of San Luis Obispo, 2024-present

Aspen has been awarded this contract with the County of San Luis Obispo to prepare an EIR for a 500-MW battery energy storage system. Ms. Inouye is serving as the Project Manager as well as the technical specialist for the Land Use/Planning and Recreation analyses. The project will require a Conditional Use Permit from the County, and the EIR being prepared by Aspen will be used as the County's CEQA clearance.

PG&E DIABLO CANYON POWER PLANT DECOMMISSIONING AND FUTURE SITE REUSE PROJECT

County of San Luis Obispo, 2021-present

Aspen is currently preparing an EIR to evaluate impacts from the decommissioning of Diablo Canyon Power Plant. The EIR analysis will include three phases of decommissioning, with site decommissioning (Phase 1) and final site restoration (Phase 2) being analyzed at a project-level, and future site reuse (Phase 3) being analyzed at a program-level. Ms. Inouye is responsible for analyzing the project's impacts to Aesthetics as well as to Land Use, Planning and Agriculture. Particular issues of concern include the effects of waste transport on local communities such as the Cities of Pismo Beach and Santa Maria, and the Counties of San Luis Obispo and Santa Barbara.

EASEMENT UPDATES AND ACQUISITION SUPPORT

Consumers Power Inc., 2022-2024

Aspen is providing support services to Consumers Power Inc. (CPI) for updating and acquiring utility easements. This work is in response to wildfires in 2020 that caused substantial damage to utility infrastructure. To increase power reliability, CPI is replacing many of the damaged utility lines with underground easements. Ms. Inouye is managing the Aspen Team's work to map and track the easement acquisition and recordation tasks, and to document the Team's right-of-way subconsultant's negotiations with property owners.

JULIETTE SUBSTATION MODIFICATIONS EXEMPTION

Silicon Valley Power, 2024

Silicon Valley Power proposed modifications to the existing Juliette Substation to accommodate the installation of a third transformer. Ms. Inouye provided support to Silicon Valley Power by consulting with the City of Santa Clara to confirm the applicability of a Class 3 Categorical Exemption, followed by preparation of the Notice of Exemption and supporting documentation.

PUTAH CREEK ENERGY FARM USE PERMIT

County of Yolo, 2019

For this IS/MND, Ms. Inouye prepared the agricultural resources analysis that addressed impacts to approximately 19 acres of Prime Farmland from a proposed solar generation and battery storage facility. Ms. Inouye also analyzed potential impacts to geology and soils.

STRAUSS WIND ENERGY PROJECT

Santa Barbara County, 2018-2019

Aspen prepared a Supplemental EIR to evaluate the construction and operation of a wind energy facility that would include 30 wind turbine generators on 2,988 acres. The Supplemental EIR updated the analysis and conclusions from the previously approved Lompoc Wind Energy Project. Ms. Inouye analyzed project impacts to

Land Use, Recreation, Agriculture, and Energy, and well as the project's consistency with federal, State, and local policies.

SAN ONOFRE NUCLEAR GENERATING STATION (SONGS) DECOMMISSIONING PROJECT
California State Lands Commission, 2016-2019

Under contract to the State Lands Commission, Aspen prepared an EIR to evaluate impacts from the decommissioning of SONGS that analyzed decontamination and dismantlement of all SONGS structures and components. Ms. Inouye conducted the CEQA analysis for Visual Resources.

RIO COSUMNES CORRECTIONAL CENTER SUBSTATION PROJECT
Sacramento Municipal Utilities District, 2018

Under contract to the Sacramento Municipal Utilities District, Aspen prepared an IS/MND to evaluate the effects of a new substation and subtransmission line. Ms. Inouye prepared the agricultural resources analysis that addressed impacts to adjacent Prime Farmland and Williamson Act contracts along the subtransmission line route, and identified feasible mitigation to minimize adverse effects.

CENTRAL COAST FIELD OFFICE OIL & GAS EIS LEASING AND DEVELOPMENT RMP AMENDMENT AND EIS
Bureau of Land Management, 2014-2018

Aspen prepared an EIS to analyze well completion and stimulation practices, including hydraulic fracturing and the use of horizontal drilling, in the Hollister Field Office. Aspen conducted a Social and Economic Workshop and Ms. Inouye wrote the Workshop Summary Report, which summarized public input on effects to local economic and social goals. This report was used to guide the EIS Socioeconomic analysis. Ms. Inouye analyzed project impacts to Lands and Realty, Special Management Areas, Wild and Scenic Rivers, and Utility Corridors and Communication Sites.

PALEN SOLAR PV PROJECT
Bureau of Land Management, 2016-2017

Under contract to the Bureau of Land Management, Aspen assisted with the preparation of a Supplemental EIS/EIR and Land Use Plan Amendment for this proposed 500 MW solar facility on approximately 3,400 acres of federal public lands. Ms. Inouye reviewed the existing environmental documentation for the project and updated the analysis for social and economic impacts as well as for impacts to BLM's multiple-use classification system.

ANTELOPE NORTH SOLAR PROJECT
City of Lancaster, 2017

Under contract to the City of Lancaster, Aspen prepared an EIR to address the short- and long-term impacts from a proposed 72-megawatt utility scale solar generating facility. Ms. Inouye conducted the analysis for Land Use and Agricultural Resources.

SCE TRANSMISSION TOWER REPLACEMENT PROJECT
Port of Long Beach, 2016-2017

Aspen prepared this EIR to evaluate the proposed removal and replacement of transmission and telecommunication lines across Cerritos Channel to increase the vertical conductor clearance for the passage of larger ships within Long Beach Harbor. Ms. Inouye analyzed the project impacts to Aesthetics, Agricultural and Forestry Resources, Land Use, Planning and Recreation. Ms. Inouye also prepared the Application Summary Report, which analyzed the project's consistency with the Port Master Plan and the California Coastal Act.

BOGLE WIND TURBINE PROJECT
Yolo County, 2015-2017

Under contract to Yolo County, Aspen prepared an EIR to evaluate the impacts from a proposed 1.85 MW wind turbine that would be used to power the Bogle winery production facility. Ms. Inouye provided a summary analysis of the resource areas for which project effects would not be significant.

SAN BERNARDINO COUNTY PARTNERSHIP FOR RENEWABLE ENERGY AND CONSERVATION: PHASE 2,
San Bernardino County, 2015-2016

Under contract to San Bernardino County, Aspen prepared a Renewable Energy Cost, Benefits, and Recovery Study to provide supportive technical information as a foundation for future County policy recommendations and directives on renewable energy development. Described as the "REVEAL Initiative Report," this document received AEP's 2017 Merit Award. As a component of this study, Ms. Inouye created a Strategic Conservation Framework that identified planning and policy tools and examples of best practices to maximize economic gains and opportunities for conservation from renewable energy development. Ms. Inouye also interviewed community stakeholders to gather input on the community's evaluation of costs and benefits associated with renewable technologies.

VALLEY SOUTH SUBTRANSMISSION PROJECT
California Public Utilities Commission, 2015-2016

Aspen prepared this EIR to evaluate the construction and operation of a proposed 12-mile, 115-kV subtransmission line through the cities of Menifee and Murrieta and unincorporated Riverside County. The project included an additional 3.4 miles of reconductoring activities. Ms. Inouye analyzed the project's impacts to Land Use.

DG SOLAR PROJECTS
Confidential Client, 2015-2016

Ms. Inouye served as an analyst for the CEQA clearance documents and permitting of three small-scale (2 MWs and smaller) solar PV projects located in San Bernardino. Aspen assisted with the preparation of CEQA clearance documents (e.g., MNDs), cultural analyses, and local agency permitting efforts. Ms. Inouye analyzed project impacts to Agricultural, Biological, and Mineral Resources, Hydrology and Water Quality, Land Use and Planning, and Recreation.

ASPIRATION SOLAR G SOLAR GENERATING FACILITY
Fresno County, 2015

This IS/MND was prepared for Fresno County to evaluate the effects of the proposed construction and operation of a 9-megawatt utility-scale solar generating facility. Ms. Inouye analyzed project impacts to Minerals, Recreation, Public Services, and Utilities.

WEST OF DEVERS UPGRADE PROJECT
California Public Utilities Commission, 2015

This EIR/EIS was prepared by Aspen in coordination with the U.S. Bureau of Land Management and the CPUC to facilitate the full deliverability of electricity from new generation resources in eastern Riverside County into the Los Angeles area. Ms. Inouye analyzed the impacts from connected actions to Recreation, Agriculture, Air Quality, and Climate Change.

PARKER-HEADGATE ROCK AND PARKER-BOUSE REROUTE PROJECT
Western Area Power Administration, Desert Southwest Region, 2014-2017

Under contract to Western, Aspen prepared an Environmental Assessment of proposed upgrades and reroute of the existing Parker Dam-Headgate Rock and Parker-Bouse transmission lines along the Colorado River in western Arizona and eastern California. The proposed upgrades and reroute traversed lands under the jurisdiction of

the Bureau of Land Management, the Bureau of Indian Affairs, the Bureau of Reclamation, and the State of Arizona, as well as private lands. Ms. Inouye oversaw the analyses prepared for Land Use, Recreation, and Wild Horses and Burros.

PARKER-DAVIS TRANSMISSION SYSTEM ROUTINE OPERATION AND MAINTENANCE PROJECT AND PROPOSED INTEGRATED VEGETATION MANAGEMENT PROGRAM

Western Area Power Administration, Desert Southwest Region, 2014-2015

Aspen prepared the Environmental Assessment for a programmatic operations and maintenance process and an Integrated Vegetation Management program on the 1,534-mile Parker-Davis Transmission System. Ms. Inouye supported the project manager with document preparation, editorial review, production, and management of the Administrative Record.

COOLWATER-LUGO TRANSMISSION PROJECT

California Public Utilities Commission, 2014-2015

This Draft PA and EIS/EIR was prepared by Aspen in coordination with the U.S. Bureau of Land Management and the CPUC to analyze the effects of proposed transmission lines and associated infrastructure required to interconnect renewable generation projects and improve system reliability in the High Desert Region of San Bernardino County. Ms. Inouye defined the No Action/No Project alternative for the analysis. She also wrote a summary of existing Land Use conditions for a Master Environmental Assessment that Aspen prepared for the project study area.

SUNSET SUBSTATION AND TRANSMISSION AND DISTRIBUTION PROJECT

City of Banning, 2006

Ms. Inouye assisted with the research and preparation of an environmental strategy memorandum to advise the City on an appropriate environmental strategy for its energy transmission and distribution project. Ms. Inouye conducted the social science analyses and assisted the project manager with the coordination and preparation of the CEQA document.

DEVERS–PALO VERDE NO. 2 TRANSMISSION LINE PROJECT

California Public Utilities Commission, 2005-2006

For this EIS/EIR that was jointly prepared by the U.S. Bureau of Land Management and the CPUC, Ms. Inouye prepared the Land Use analysis, which included an assessment of policy consistency with local, state, and federal policies and regulations. Ms. Inouye also analyzed project impacts to Wilderness/Recreation and Agricultural Resources.

ANTELOPE-PARDEE 500-KV TRANSMISSION PROJECT

California Public Utilities Commission, 2005-2006

For this EIS/EIR that was jointly prepared by the USDA Forest Service and the CPUC, Ms. Inouye prepared the Land Use and Recreation analyses. She also assisted with coordination of the public scoping and public review periods.

COASTAL CONSISTENCY DETERMINATIONS FOR FEDERAL OIL AND GAS LEASES OFFSHORE SANTA BARBARA, VENTURA AND SAN LUIS OBISPO COUNTIES

Minerals Management Service, 2005

Aspen assisted the U.S. Department of the Interior, Minerals Management Service in evaluating the potential environmental effects associated with six separate suspensions for undeveloped oil and gas leases Pacific Outer Continental Shelf located offshore Southern California. Ms. Inouye directly assisted the Project Manager with the analysis and preparation of 10 Coastal Consistency Determinations.

NUCLEAR STEAM GENERATOR REPLACEMENT PROJECTS

California Public Utilities Commission, 2004-2005

This project analyzed the replacement of existing radioactivity-contaminated steam generators at the San Onofre Nuclear Generating Station (SONGS) and Diablo Canyon Nuclear Power Plant (DCPP) in San Diego and San Luis Obispo Counties, respectively. Ms. Inouye prepared the Land Use and Recreation analysis (DCPP), Land Use, Recreation, and Military Operations analysis (SONGS), Cumulative project list (SONGS), and Mitigation Monitoring and Reporting documentation (SONGS). Ms. Inouye assisted with the Public Scoping and Public Involvement Meetings in San Clemente, California.

WATER RESOURCE PROJECTS

MATILIJA DAM REMOVAL CEQA UPDATE

Ventura County Public Works Agency-Watershed Protection, 2020-present

In 2004, Ventura County certified the Matilija Dam Ecosystem Restoration EIS/EIR, which was jointly prepared with the U.S. Army Corps of Engineers. Aspen is preparing a Subsequent EIR to the 2004 EIS/EIR to address changes in the revised project description, changes in baseline conditions, and new CEQA requirements. Ms. Inouye is serving as deputy project manager in her coordination with Ventura County Public Works Agency-Watershed Protection, and in her role to prepare the sections of the Subsequent EIR that are required for a cohesive and CEQA compliant document. Ms. Inouye's technical analyses for the Subsequent EIR include Land Use, Recreation, Agriculture/Forestry, Coastal Beaches and Sand Dunes, Mineral Resources, Public Services, and Population and Housing.

COGSWELL RESERVOIR POST EMERGENCY RESTORATION PROJECT EA

Los Angeles County Public Works, 2024

Aspen provided support to the Los Angeles County Public Works with preparation of an Environmental Assessment that was required for the submittal of a Section 404 permit application to the U.S. Army Corps of Engineers. Ms. Inouye was brought in as a senior technical reviewer to update the analyses that addressed Potential Impacts on Human Uses and potential conflicts with the Wild and Scenic Rivers Act.

VENTURA RIVER LEVEE (VR-1) IMPROVEMENTS PROJECT

Ventura County Watershed Protection District, 2019-present

Aspen is preparing in Initial Study and EIR to evaluate the impacts associated with the proposed improvements to the existing Ventura River Levee (VR-1). The project traverses the communities of Ventura County and City of San Buenaventura on the east side of the Ventura River. Ms. Inouye completed the CEQA analyses for Scenic Resources, Fire Hazards, Public Health, Community Character, Housing, and Recreation.

SANTA CLARA RIVER (SCR-1) LEVEE IMPROVEMENTS PROJECT

Ventura County Watershed Protection District, 2018-present

Aspen is preparing an Initial Study and EIR to evaluate the impacts associated with the proposed modifications and improvements of the existing Santa Clara River Levee infrastructure. The project traverses the communities of Ventura County and City of Oxnard, along existing residential and agricultural uses. Ms. Inouye completed the CEQA analyses for Agricultural Resources, Community Character, Housing, and Recreation.

LITTLEROCK RESERVOIR SEDIMENT REMOVAL PROJECT

USDA Forest Service and Palmdale Water District, 2004-present

Aspen prepared a joint EIS/EIR to evaluate the effects of restoring Littlerock Reservoir to its 1992 design capacity. Ms. Inouye's technical role was to analyze the project impacts to Recreation and Land Use and Wildfire Prevention and Suppression. Ms. Inouye managed the NEPA and CEQA Administrative Records. She also

provided technical assistance with preparing and submitting permit applications to California Department of Fish and Wildlife, Regional Water Quality Control Boards, and the U.S. Army Corps of Engineers.

RINDGE DAM REMOVAL PATHWAY RISK-BENEFIT ASSESSMENT
California Department of Parks and Recreation, 2019-2020

Aspen prepared a risk-benefit assessment of a pathway for removal of Rindge Dam on Malibu Creek. Ms. Inouye's roles included preparing a summary of national dam removal projects, as well as analyzing funding sources and their relative timeframes. Ms. Inouye also assisted with development of a SWOT Analysis, which was used to evaluate the relative advantages and disadvantages of selecting various federal partners for the project.

ELDER CREEK CHANNEL IMPROVEMENT PROJECT
San Bernardino County Flood Control District, 2019

This IS/MND evaluated the impacts from flood control improvements to the Elder Creek system within the City of Highland. Ms. Inouye prepared the Agriculture, Land Use and Planning, and Recreation analyses.

WEST FONTANA CHANNEL FLOOD CONTROL IMPROVEMENT PROJECT
San Bernardino County Flood Control District, 2019

This IS/MND evaluated the impacts from flood control improvements to the West Fontana Channel within the City of Fontana. Ms. Inouye prepared the Agriculture, Land Use and Planning, Population and Housing, and Recreation analyses.

GATES CANYON STORMWATER CAPTURE PROJECT
Los Angeles County Department of Public Works, 2017-2018

This Initial Study analyzed the impacts from a proposed stormwater capture system to collect and treat urban runoff and stormwater. The project would be constructed within Gates Canyon Park, located in a residential neighborhood in the City of Calabasas. Ms. Inouye prepared the Aesthetics, Agriculture, Land Use and Planning, Recreation, Public Service, and Utilities analyses.

LADERA PARK STORMWATER CAPTURE PROJECT
Los Angeles County Department of Public Works, 2017-2018

This Initial Study analyzed the impacts from a proposed stormwater capture system to collect and treat urban runoff and stormwater. The project would be constructed within a portion of Ladera Park, located in the urban community of Ladera Heights. Ms. Inouye prepared the Aesthetics, Agriculture, Land Use and Planning, Recreation, Public Service, and Utilities analyses.

CHRIS BASIN ANNUAL ROUTINE MAINTENANCE AND BACTERIAL REDUCTION PILOT PROGRAM
San Bernardino County Flood Control District, 2017-2018

Aspen prepared an IS/MND to support the District's proposed annual routine maintenance activities within Chris Basin, as well as the implementation of a bacteria reduction pilot project. Ms. Inouye provided the technical analysis for agricultural resources, land use and planning, and recreation.

WINEVILLE BASIN ROUTINE MAINTENANCE PROJECT
San Bernardino County Flood Control District, 2017

Aspen prepared an IS/MND to support the District's proposed annual routine maintenance activities within Wineville Basin. Ms. Inouye provided the technical analysis for agricultural resources, land use and planning, and recreation.

LA MIRADA RECYCLED WATER EXPANSION PROJECT
Central Basin Municipal Water District, 2016-2017

Aspen provided several services to the District that included preparation of an IS/MND, as well as providing grant funding support for this proposed recycled water pipeline expansion project. Ms. Inouye completed the CEQA analyses for aesthetics, agriculture, land use and planning, population and housing, and recreation. She also prepared the regulation compliance summary for the funding grant application.

REDMONT PUMP STATION AND TANK PROJECT
Los Angeles Department of Water and Power, 2015-2016

Ms. Inouye assisted the Aspen Team with preparing this EIR to evaluate the replacement of Redmont Pump Station and Reservoir with a new pump station and steel tank. Ms. Inouye coordinated with technical staff and the client to integrate their analyses into the report. Ms. Inouye also prepared the Summary and Comparison of Alternatives, Cumulative Scenario, and Other CEQA Consideration analyses.

ENVIRONMENTAL JUSTICE AND SOCIOECONOMICS BASELINE CONDITIONS TECHNICAL REPORT
SGPWA Water Supply Facility Removal Project, 2015

Ms. Inouye served as an analyst for a technical report prepared for the San Gorgonio Pass Water Agency (SGPWA). The Project evaluates the current supply of consumptive water to the community of Banning Bench and the City of Banning. The pipeline proposed for removal is currently the only source of potable water supply for the community of Banning Bench, and removing the 1,100-foot section of pipe would curtail water deliveries to the community.

ORMOND BEACH RESTORATION FEASIBILITY STUDY
California Coastal Conservancy, 2004

This project has been recognized by the Southern California Wetlands Recovery Project as the most significant wetland restoration project in southern California. Ms. Inouye prepared the Land Use, Socioeconomic, and Recreation analyses of the study area. She also contributed to the opportunities and constraints assessment that guided the evaluation of future restoration alternatives.

MATILIJA DAM ECOSYSTEM RESTORATION EIS/EIR AND FEASIBILITY STUDIES
U.S. Army Corps of Engineers, 2003

Ms. Inouye assisted with the alternatives analysis for removing Matilija Dam to allow passage for steelhead trout and replenishment of sediment on area beaches. Ms. Inouye also prepared the Facts and Findings Statement and the Statement of Overriding Considerations.

TEHACHAPI EAST AFTERBAY PROJECT
California Department of Water Resources, 2003

Aspen provided on-call environmental assessment, compliance, and monitoring services for projects associated with the State Water Project in southern California. In preparation for the construction of a reservoir near the bifurcation of the East Branch and West Branch of the California Aqueduct, Ms. Inouye conducted burrowing owl surveys.

CONSTRUCTION AND RETROFIT PROJECTS

RTI TRANSPACIFIC FIBER-OPTIC CABLES PROJECT
City of Hermosa Beach, 2019-2021

Under contract to the City of Hermosa Beach, Aspen prepared a draft EIR evaluating the proposed installation of two submarine fiber-optic cables that would connect to the Power Feed Equipment station, which was installed as part of the previously approved Transpacific Fiber Optic Cables Project. Ms. Inouye prepared the

Land Use analysis, the Alternatives chapter, and a summary of Other Required CEQA Topics for the EIR. Due to the applicant's decision to withdraw its permit application, this project is currently on-hold.

WHITTIER AQUATICS FACILITY

Los Angeles County Department of Public Works, 2019

This IS/MND evaluated the impacts from the construction and operation of a public aquatics facility on the campus of Pioneer High School in West Whittier-Los Nietos. Ms. Inouye prepared the Agriculture, Land Use and Planning, Population and Housing, and Recreation analyses.

CALFIRE COMMUNICATION TOWER AND FACILITIES REPLACEMENT PROJECTS

California Department of General Services, 2018

Under contract to the Department of General Services, Aspen provided the analysis and documentation for CEQA Categorical Exemptions for 5 separate projects. Ms. Inouye reviewed the wildlife, vegetation, and cultural technical memoranda prepared by the Aspen team, and wrote the supporting analysis to justify the projects' eligibility for a CEQA exemption.

ALAMITOS BAY PUMP STATION DISCHARGE LINE REPLACEMENT PROJECT

Los Angeles County Department of Public Works, 2018

This IS/MND evaluated the impacts from upgrades and replacement of the existing Alamitos Bay Pump Station in the City of Long Beach. Ms. Inouye prepared the Agriculture, Land Use and Planning, Population and Housing, and Recreation analyses. As the project would be located in the coastal zone, Ms. Inouye also discussed the project's consistency with the City's Local Coastal Program.

MARINA DEL REY DOCK REPLACEMENT PROJECT

Los Angeles County Department of Public Works, 2018

This project would replace the existing floating dock facilities operated by the Los Angeles Fire Department and County Sheriff's Department. Ms. Inouye assisted with a memorandum that documented support for a CEQA Categorical Exemption for the project.

CEQA PEER REVIEW SERVICES

City of Banning, 2017-2018

Under contract to the City of Banning, Aspen conducted peer review of the environmental documentation for a 1,000,000-square foot warehouse distribution facility. Ms. Inouye reviewed the following Initial Study sections to determine whether the analyses were adequate: Project Description, Agriculture, Land Use, Housing, Recreation. To determine CEQA adequacy for the project's EIR, Ms. Inouye reviewed the following sections: Introduction, Project Description, Energy Conservation, Alternatives, and Other CEQA Topics.

WORLD OIL TANK INSTALLATION PROJECT

Port of Long Beach, 2020

Aspen prepared an Initial Study and Negative Declaration for the proposed construction of two petroleum storage tanks within the Port of Long Beach's Ribost Terminal. Ms. Inouye prepared the Application Summary Report, which provided an assessment of the project's conformance with the Port Master Plan and the California Coastal Act.

BULK CEMENT WAREHOUSE AND LOADING FACILITY PROJECT

San Diego Unified Port District, 2016-2018

Aspen prepared an Initial Study and EIR that analyzed a two-phase modification project to Bays C-7 through C-10 of Warehouse C to import and distribute up to 500,000 MT/yr of cementitious material. The Initial Study and EIR analyses tiered off a Final Program EIR for the Tenth Avenue Marine Terminal Redevelopment Plan and

Demolition and Initial Rail Component, which was recently adopted by the Board of Port Commissioners. Ms. Inouye prepared the agricultural and forestry resources, land use and planning, recreation, and aesthetics analyses for the project's Initial Study.

FIRE CAMP 8 HELISPOT IMPROVEMENT

Los Angeles County Department of Public Works, 2016-2017

For this proposed 1,807-foot-long water pipe that would be constructed at an existing fire department facility, Ms. Inouye prepared a memorandum that summarized the technical documentation to support a CEQA Categorical Exemption for the project.

INSTITUTION ROAD RECONSTRUCTION AND MAINTENANCE PROJECT

San Bernardino County Department of Public Works, 2016

This Initial Study evaluated the impacts of reconstructing a 5,400-foot extent of Institution Road that traverses the City of San Bernardino as well as unincorporated County areas. Ms. Inouye provided technical review of the Agriculture and Forestry, Land Use and Planning, and Recreation analyses.

ALTADENA SHERIFF'S DEPARTMENT PARKING LOT EXPANSION

Los Angeles County Department of Public Works, 2016

This project involved the construction of a 33,000 square foot parking lot to serve an existing sheriff's department facility. Ms. Inouye prepared a memorandum that summarized the technical documentation to support a CEQA Categorical Exemption for the project.

PETER J. PITCHESS DETENTION CENTER LANDFILL CLOSURE PROJECT

Los Angeles County Department of Public Works, 2016

This IS/MND examined the impacts from the proposed final closure and maintenance of an existing Class III (non-hazardous) landfill. Ms. Inouye prepared the Aesthetics, Agriculture, Land Use and Planning, and Recreation analyses.

TRANSPACIFIC FIBER OPTIC CABLES PROJECT

City of Hermosa Beach, 2015

To support the City's review of this project that was proposed by MC GLOBAL BP4, Aspen prepared an EIR to analyze and disclose potentially significant environmental effects associated with the installation, operation, maintenance, and decommissioning of up to four transpacific submarine cable systems. Ms. Inouye completed the alternatives analysis and provided editorial review.

PIRU CREEK EROSION REPAIRS AND BRIDGE SEISMIC RETROFIT PROJECT

California Department of Water Resources, 2005

This Initial Study examined the effects of repairing erosion damage at 4 sites that access Department of Water Resources facilities along Piru Creek. Ms. Inouye prepared the Aesthetics, Agriculture, Land Use, Public Services, Recreation, and Utilities and Service Systems sections.

NEW SCHOOL CONSTRUCTION PROGRAM EIR

Los Angeles Unified School District, 2003-2006

Aspen assisted LAUSD with its review of a four-phased new school construction program intended to meet existing and projected overcrowded conditions (200,000 seat shortfall) within the LAUSD (i.e., City of Los Angeles and all or parts of surrounding jurisdictions covering 700 square miles). Aspen was awarded 38 CEQA document assignments for new school projects, school expansions, and additions. In support of this contract, Ms. Inouye prepared impact assessments for the following IS/MND and EIR documents:

- New School Construction Program EIR, Los Angeles, CA. Ms. Inouye prepared the policy consistency analysis of the Program as it pertained to the City of Los Angeles and the 28 surrounding jurisdictions.
- South Region Elementary School No. 1 IS/MND, Los Angeles, CA. As Deputy Project Manager, Ms. Inouye coordinated the public review period and prepared the Aesthetics, Land Use, Population and Housing, Recreation, and Utilities sections.
- Central Region Middle School No. 7 IS/MND, Los Angeles, CA. As Deputy Project Manager, Ms. Inouye coordinated the public review period and prepared the Aesthetics, Agriculture, Biological Resources, Land Use, Population and Housing, Recreation, and Minerals sections.
- South Region Middle School No. 6 Initial Study and EIR, Los Angeles, CA. Ms. Inouye prepared the biological resources section and assisted the Project Manager with the Public Scoping Meetings.
- Central Region Elementary School No. 16 Initial Study, Los Angeles, CA. Ms. Inouye prepared the public services and utilities sections.
- Modernization of Hughes Middle School and Relocation of El Camino Real Canoga Park Adult School Initial Study, Los Angeles, CA. Ms. Inouye prepared an environmental assessment of Public Services and Utilities.

OTHER PLANNING PROJECTS

LANDS WITH WILDERNESS CHARACTERISTICS INVENTORIES AND REPORTS

U.S. Bureau of Land Management, Ukiah Field Office, 2022-2023

To support future updates to the BLM's management plans for the Ukiah Field Office, Central California District, Aspen prepared an inventory of Lands with Wilderness Characteristics for approximately 113,400 acres of public lands administered by the BLM. As the Project Manager, Ms. Inouye led a team of GIS analysts and biologists to conduct the spatial analysis, field verification, and summary documentation. Ms. Inouye managed the production of 8 Unit Reports, 61 Wilderness Route Analysis Reports, and a consolidated Summary Report that documented the entire inventory process and results.

CALIFORNIA DESERT CONSERVATION AREA PLAN OF 1980 AS AMENDED PLAN CONSOLIDATION

U.S. Bureau of Land Management, 2016-2023

Aspen has provided ongoing support to the BLM with the effort to consolidate all amendments to the California Desert Conservation Area (CDCA) Plan of 1980 as Amended. Since the original 1980 plan, the CDCA Plan has been amended approximately 169 times. Ms. Inouye is currently managing the Aspen Team's work to complete this plan consolidation and to produce a full red-line version of the plan, which will serve as the legal version of the document, as well as an edited reader version.

SIX NEW COACHELLA VALLEY TRAILS PROJECT

U.S. Bureau of Land Management and Coachella Valley Mountains Conservancy, 2022

Aspen is preparing a joint NEPA and CEQA document (Environmental Assessment/Mitigated Negative Declaration) to analyze the construction and use of six new recreational trails in the Coachella Valley. The locations of the proposed trails are designed to provide recreational access to underserved communities. Ms. Inouye evaluated environmental justice issues associated with the project, including whether the project would have a disproportionately high or adverse human health or environmental effect on minority populations or low-income populations, as well as any beneficial effects on these populations.

E-BIKE RULEMAKING COMMENT SUPPORT

U.S. Bureau of Land Management, 2020

Aspen provided public comment support for BLM's E Bike Rulemaking, which required a substantial effort within a compressed timeframe. Ms. Inouye managed the comment sort and categorization process that successfully sorted and parsed over 23,000 comments within 7 days. To synthesize the comment themes and concerns for

consideration by the BLM, Ms. Inouye prepared the Comment Summary and Analysis Report and drafted the BLM's responses to these comments.

CEQA TRAINING

Silicon Valley Power, 2020

Ms. Inouye was one of 3 Aspen Team members who prepared and presented a 2-hour training course on the California Environmental Quality Act to Silicon Valley Power. Ms. Inouye hosted the presentation through Zoom.

WILLIAMSON ROCK-PACIFIC CREST NATIONAL SCENIC TRAIL PROJECT

USDA Forest Service, 2016-2019

Under contract to the National Fish and Wildlife Foundation, Aspen prepared an EIS to evaluate the effects of allowing public access to the Williamson Rock climbing area and to a portion of the Pacific Crest National Scenic Trail, both of which are currently closed to protect the mountain yellow-legged frog. The EIS considered the potential impacts from a range of management alternatives. Ms. Inouye prepared the analyses for Land Use, Recreation, Wilderness, and Wild and Scenic River Management, and managed the responses to public and agency comments.

SHUMWAY RANCH VISITOR FACILITIES IMPROVEMENT PROJECT

Coachella Valley Mountains Conservancy & Desert Recreation District, 2021

Aspen provided CEQA-compliance support to the Coachella Valley Mountains Conservancy and the Desert Recreation District for facility improvements to the existing Shumway Ranch to accommodate new visitor facilities. Ms. Inouye authored a detailed memorandum that provided technical documentation to support a CEQA Categorical Exemption for the project and prepared the Notice of Exemption for County Clerk filing.

PUERCO CANYON CAMP AND TRAILHEAD PROJECT EIR

Mountains Recreation and Conservation Authority, 2018

Aspen provided CEQA-compliance support to the Mountains Recreation and Conservation Authority for development of a recreation facility in Puerco Canyon. The project would be located within the coastal zone and is subject to 2 certified Local Coastal Programs (LCPs): City of Malibu LCP and Santa Monica Mountains LCP. Ms. Inouye authored the coastal consistency technical report as well as the land use analysis for the project EIR.

LONG CANYON TRAIL IMPROVEMENT PROJECT

Coachella Valley Mountains Conservancy, 2019

This IS/MND evaluated the impacts from proposed improvements to an existing National Park Service Trail Corridor that traverses the western portion of Joshua Tree National Park. Ms. Inouye prepared the analyses for Aesthetics, Agricultural and Forestry Resources, Land Use and Planning, Population and Housing, and Recreation.

JOINT RED FLAG '05 EXERCISE

U.S. Army Corps of Engineers, 2005

Ms. Inouye prepared the Land Use, Socioeconomic, and Recreation analyses for the Environmental Assessment to analyze the impacts associated with the ground component of a military exercise on Bureau of Land Management lands.

VEGETATION MANAGEMENT PROJECTS

CALIFORNIA STATEWIDE FUELS PROGRAMMATIC EA

U.S. Bureau of Land Management, California State Office, 2021-present

Under contract to the BLM, Aspen is managing the preparation of a Programmatic Environmental Assessment (pEA) to address federal NEPA requirements for fuels reduction projects on 901,604 acres of BLM-administered

lands. The pEA analyzes a suite of treatments to be used in fuel reduction projects within the range of habitats and resources. In coordination with BLM specialists, Ms. Inouye prepared the Environmental Justice analysis that addressed fuels treatment effects on minority populations and low-income populations Statewide. Ms. Inouye also identified potential issues of concern related to the following topics: Lands and Reality, Special Designations, Recreation, Rangeland and Grazing, Travel Management and Transportation, Wild Horses and Burros, and Farmland.

BORDER FUELS PROJECT

U.S. Bureau of Land Management, California Desert District, 2019-present

Ms. Inouye provided NEPA support to the BLM in planning fuel management near the U.S.-Mexico border to reduce wildfire risk and to support future firefighting activities. As project manager, Ms. Inouye prepared the Environmental Assessment with supporting documentation from the Aspen Team's biologist and cultural resources specialist.

IMPERIAL COUNTY CARRIZO CREEK/SAN FELIPE CREEK FUELS REDUCTION PROJECT

U.S. Bureau of Land Management, California Desert District, 2019-present

Ms. Inouye provided NEPA support to the BLM in planning invasive species removal in the Carrizo Creek and San Felipe Creek watersheds. The targeted species is invasive tamarisk, and proposed treatment methods include mechanical removal, chemical treatment, and burning. As project manager, Ms. Inouye prepared the Environmental Assessment with supporting documentation from the Aspen Team's biologist and cultural resources specialist.

LOW DESERT INTEGRATED VEGETATION MANGEMENT PROJECT

U.S. Bureau of Land Management, California Desert District, 2020-present

Ms. Inouye provided NEPA support to the BLM in vegetation management for an approximately 2.47-million-acre planning area in eastern Riverside County. The project would include a suite of treatments to reduce hazardous fuels including non-native plant species in strategic locations. As project manager, Ms. Inouye prepared the Environmental Assessment with supporting documentation from the Aspen Team's biologist and cultural resources specialist.

CORE MARSH CONTROLLED BURN PROJECT

Center for Natural Lands Management, 2020

Under contract to the Coachella Valley Mountains Conservancy, Aspen prepared an Addendum to the Coachella Valley Multiple Species Habitat Conservation Plan Final EIR/EIS to identify controlled burning as a management strategy for invasive species within a parcel known as Core Marsh within the Dos Palmas Conservation Area. Ms. Inouye prepared the CEQA Addendum with technical support from the Aspen Team's biologist and air quality specialist.

MIDDLE SALT CREEK TAMARISK REMOVAL PROJECT

The Living Desert Zoo and Gardens, 2020

Under contract to The Living Desert, Aspen prepared an Addendum to the Coachella Valley Multiple Species Habitat Conservation Plan Final EIR/EIS to identify tamarisk removal and habitat restoration as a management strategy for invasive species along the middle reaches of Salt Creek within the Dos Palmas Conservation Area. Ms. Inouye prepared the CEQA Addendum with technical support from the Aspen Team's biologist.

POWERHOUSE VEGETATION AND FUELS PROJECT AND SAWMILL-LIEBRE REFORESTATION PROJECT

National Forest Foundation, 2019

Aspen supported the efforts of the Angeles National Forest in conducting field surveys, preparation of specialist reports, and NEPA documentation for 2 National Forest projects. The purpose of these projects is to: (1) to com-

plete forest health and fuel management treatments, and (2) reforestation in areas affected by the Powerhouse Fire. Ms. Inouye created the framework for the exclusion documentation and provided management assistance to the Aspen Project Manager and technical specialists.

CEQA DOCUMENTATION FOR VEGETATION MANAGEMENT PROJECT

City of Laguna Beach Fire Department, 2019

Aspen provided CEQA permitting and compliance support for vegetation management related to the City's wildland defense program. For 2 habitat restoration projects, Ms. Inouye prepared the analysis to justify the projects' eligibility for CEQA exemptions. Ms. Inouye also provided technical review of the supporting biological, cultural, and paleontological memoranda prepared by the Aspen team.

PROFESSIONAL CERTIFICATIONS/AFFILIATIONS

- National Association of Environmental Professionals

HONORS AND AWARDS

- 2019 American Planning Association, Inland Empire Section Award of Hard Won Victories for the San Bernardino County Renewable Energy and Conservation Element
- 2017 California Association of Environmental Professionals, Merit Award for Environmental Resource Document, REVEAL Initiative Report

INSTRUCTIONAL COURSES FOR CLIENTS

- Siting Technical Presenter and Panelist at the **U.S. Offshore Wind Synthesis of Environmental Effects Research (SEER) Webinar**, Environmental Considerations for Nearshore Ecosystems from Cable Landfall, Navigation, and Port Development for Offshore Wind Energy, September 2023.
- CEQA Knowledge Transfer Training for Los Angeles Department of Water and Power (LADWP). Prepared and conducted two 2-hour training modules to instruct LADWP Environmental Planning & Assessment Office staff on:
  - Preparation of **CEQA Initial Study Environmental Checklist Form**, November 2022
  - **Seen-Area and Visual Assessment** per U.S. Forest Service requirements, January 2023
- CEQA Training Course for Silicon Valley Power. Prepared and conducted a **customized CEQA training session focused on CEQA Exemptions**, 2021

Irene J. Kaufman

ENVIRONMENTAL PLANNER

PROFILE: Irene Kaufman is an environmental professional with a multidisciplinary background in agricultural, environmental, and geospatial sciences. Ms. Kaufman supports the preparation of environmental planning and compliance documents (i.e., CEQA/NEPA). She is a member of Aspen's Planning and Public Policy Group focused on land use, public policy, and environmental justice analyses. Additionally, she has created maps and performs spatial analyses to support various CEQA, NEPA, and technical report documents.

EDUCATION:

- Graduate Certificate, Geographic Information Science and Technology, University of Southern California, Los Angeles, CA, 2021
- MS, Agriculture, Dairy Products Technology, California Polytechnic State University, San Luis Obispo, CA, 2017
- BA, English, University of California, Davis, 2010

PROFESSIONAL EXPERIENCE

ENVIRONMENTAL AND AIR QUALITY SERVICES ON-CALL CONTRACT

Los Angeles Department of Water and Power, 2022-present

Ms. Kaufman provides planning and GIS support on Aspen's master Environmental Services and Air Quality Services on-call contract with the LADWP (2022-2027), the largest municipal utility in the State. Frequent GIS tasks include visual analysis and mapping of vegetation, jurisdictional waters, and other data for various reports. Projects include:

- **Angeles National Forest Operations and Maintenance Plan (ANF O+M Plan).** Aspen is assisting LADWP with the development of an Operations and Maintenance Plan (OMP) for activities conducted on the National Forest System (NFS) lands of the Angeles National Forest on LADWP Water System and Power System facilities. Ms. Kaufman will assist in preparing the ANF O+M Plan document. She is also preparing and updating a database with LADWP facilities on the ANF.
- **Barren Ridge Renewable Transmission Project (BRRTP)- Visual Impacts Analysis and Compensation Options Strategy and Support (2022-present).** Aspen is supporting LADWP's efforts to satisfy conditions of approval for the BRRTP to address visual resource impacts. Ms. Kaufman will conduct seen area mapping and analysis of the BRRTP transmission system based on tower heights and new infrastructure.
- **GIS Standardization and Integration Support (2022-2024).** Aspen will support LADWP's implementation and optimization of spatial data that is collected through an internal data repository . As part of this effort, Ms. Kaufman is contributing to the development of a guidance manual that will be used to communicate LADWP's standards for data collection, acquisition, and storage. Ms. Kaufman is also contributing to building out the GIS data schema.
- **CEQA Knowledge Transfer Training (2022-2023).** Aspen developed and implemented a training module that covered the methodologies used for assessing particular environmental factors required under CEQA. As a part of the Aesthetics/Visual Analysis module, Ms. Kaufman contributed to the development and preparation of the visual/seen area analyses content.
- **Support Services for the Solar Installation at the Burnt Peak Site (2022-present).** LADWP has proposed installation of solar panels to provide power to the Burnt Peak Microwave facility located on NFS lands of the Angeles National Forest. Ms. Kaufman prepared an as-seen analysis in ArcGIS Pro using the U.S. Forest Service guidelines. She additionally digitized vegetation and prepared location and vegetation maps for a BE/BA.

- **Distributing Station 104 CEQA Support (2022-present).** LADWP proposes to construct a 30 Megavolt Ampere distribution station in the Pacific Palisades community of the City of Los Angeles. Aspen is currently providing support with the public scoping process and will be preparing the EIR analysis. Ms. Kaufman will be assisting with the draft and final EIR.

OPT-IN CONTRACT

California Energy Commission (Contract #700-22-005; 10/1/2018 through 9/30/2023 and Contract #700-22-003; 4/28/2023 through 04/30/2025)

- **Kola Battery Energy Storage System Project (2023-present).** Ms. Kaufman is a technical specialist providing environmental review for this 700-MW battery energy storage system proposed in Alameda County. The applicant has applied for licensing through CEC's "opt-in" certification process. Ms. Kaufman is preparing Staff Assessments/EIR sections for: Socioeconomics and Environmental Justice.
- **Soda Mountain Solar Project (2024-present).** Ms. Kaufman is a technical specialist providing environmental analysis for this 300-MW photovoltaic and battery energy storage system proposed in San Bernardino County, to be located on land managed by the Bureau of Land Management. The applicant has applied for licensing through CEC's "opt-in" certification process. Ms. Kaufman is responsible for evaluating application completeness review of the net positive economic benefit to the local government, per CCR title 20, section 1877(f) and section 1879(a)(7), and to develop subsequent data requests for any inadequate responses from the applicant.
- **Compass Energy Storage Project (2024-present).** Ms. Kaufman is a technical specialist providing environmental analysis for this 250-MW battery energy storage system proposed in the City of San Juan Capistrano. The applicant has applied for licensing through CEC's "opt-in" certification process. Ms. Kaufman is responsible for evaluating application completeness review of the net positive economic benefit to the local government, per CCR title 20, section 1877(f) and section 1879(a)(7), and to develop subsequent data requests for any inadequate responses from the applicant.

SITING, TRANSMISSION, AND ENVIRONMENTAL PROTECTION PEAK WORKLOAD, INCLUDING NON-LITHIUM LONG DURATION ENERGY STORAGE

California Energy Commission (Contract #700-18-001: 10/1/2018 through 9/30/2023; Contract #700-22-003: 9/14/2022 through 8/31/2022; Contract #700-22-005: 8/30/2023 through January 31, 2025)

- **Replacement Tire Efficiency Program (2024-present).** Aspen is preparing a Programmatic EIR for the RTEP, which seeks to improve the energy efficiency of replacement tires through minimum standards and improving consumer access to information to ensure replacement tires for passenger cars and light-duty trucks sold in California are at least as energy-efficient as the original equipment tires sold on new vehicles. Implementation of the program requires the adoption of a regulation, which CEC will develop through a rulemaking proceeding. Ms. Kaufman is serving as a technical specialist for the Environmental Justice Analysis.
- **Fountain Wind Project (2022-present).** Ms. Kaufman is a technical specialist providing environmental analysis for this 205-MW wind project proposed in Shasta County, which is the first wind project to apply for licensing through CEC's "opt-in" certification process. Ms. Kaufman has prepared the Staff Assessments/EIR sections for: Population and Housing, Public Services, and Recreation Resources, and Environmental Justice.
- **Bowers Backup Generating Facility Population/Housing, Public Services, and Recreation Analyses (2022-present).** Aspen is providing assistance in analyzing the population/housing, public services, and recreation impacts of the Bowers Backup Generating Facility. Ms. Kaufman serves as a Technical Specialist in preparing CEC staff's Small Power Plant Exemption (SPPE) EIR work products on these subject areas.
- **San Jose Data Center 04 Population/Housing, Public Services, and Recreation Analyses (2022-present).** Aspen is providing assistance in analyzing the population/housing, public services, and recreation impacts of the San Jose Data Center 04. Ms. Kaufman serves as a Technical Specialist in preparing CEC staff's Small Power Plant Exemption (SPPE) EIR work products on these subject areas.

- **Front of the Meter, Non-Lithium Long Duration Energy Storage to Support Critical Energy Resilience for DOD at Marine Corps Base Camp Pendleton (2023-present).** Ms. Kaufman serves as Technical Specialist for an IS/MND and EA analyzing the impacts of an energy storage facility at MCBCP.

PIER WIND TERMINAL DEVELOPMENT PROJECT

Port of Long Beach and U.S. Army Corps of Engineers, 2023-present

The Pier Wind Terminal Development Project has been proposed to support the State of California's goals for Offshore Wind production that were established in AB 525. The project involves the construction and development of a 400-acre terminal and transportation corridor at the Port of Long Beach for staging and integration (i.e., receiving, staging, storing and assembly) and floating foundation assembly of floating offshore wind turbine systems. The project is subject to both NEPA and CEQA regulatory review and compliance. Ms. Kaufman is preparing the joint EIR/EIS technical analyses for Socioeconomics and Environmental Justice.

CADEMO OFFSHORE WIND DEMONSTRATION PROJECT

California State Lands Commission and U.S. Department of Defense, 2023-present

The CADEMO Offshore Wind Demonstration Project has been proposed to support the State of California's goals for Offshore Wind production that were established in AB 525. CADEMO proposes to install and operate four floating offshore wind turbines along the coast of western Santa Barbara County at Vandenberg Space Force Base (VSFB). Each turbine would be capable of producing 12 to 15 MW renewable electricity. The project would include a new onshore electrical substation within VSFB that would connect to the offshore wind turbines via a subsea static cable. The project is subject to both NEPA and CEQA regulatory review and compliance. Ms. Kaufman is preparing the joint EIR/EIS technical analysis for Environmental Justice.

BLUFF TRAIL BATTERY ENERGY STORAGE SYSTEM PROJECT

County of San Luis Obispo, 2024-present

Aspen has been awarded this contract with the County of San Luis Obispo to prepare an EIR for a 500-MW battery energy storage system. Ms. Kaufman is serving as a technical specialist. The project will require a Conditional Use Permit from the County, and the EIR being prepared by Aspen will be used as the County's CEQA clearance.

COGSWELL RESERVOIR SEDIMENT REMOVAL PROJECT

County of Los Angeles Department of Public Works, 2023-present

The Cogswell Reservoir Sediment Removal Project involves emergency sediment removal from Cogswell Reservoir due to decreased capacity anticipated to be created by increased sediment inflows as a result the Bobcat Fire. The Los Angeles County Flood Control District (LACFCD) proposes to remove 2 million cubic yards (MCY) of accumulated sediment from Cogswell Reservoir, place and compact said 2 MCY of sediment at the adjacent Cogswell Sediment Placement Site, and repair or replace electrical utilities and other associated power and communication components within the Cogswell Dam compound that were damaged by the Bobcat Fire. , Cogswell Reservoir is located in the south-central portion of the ANF and San Gabriel Mountains National Monument within Los Angeles County, California. Aspen is assisting with NEPA guidance and document preparation. Ms. Kaufman is preparing the EA technical analysis for Environmental Justice.

EASEMENT UPDATES AND ACQUISITION GIS SUPPORT

Consumers Power Inc., 2023-2024

Aspen developed a geodatabase for Consumers Power Inc. to store their rights-of-way easement documents and data. Ms. Kaufman created the easement rights-of-way GIS data layer, attached and organized easement and permit documentation, and created a geodatabase to store relevant data and make available via ArcGIS Online and associated app.

LANDS WITH WILDERNESS CHARACTERISTICS INVENTORIES AND REPORTS

U.S. Bureau of Land Management, Ukiah Field Office, 2022-2023

Aspen supported the BLM Ukiah Field Office with an inventory of Lands with Wilderness Characteristics for approximately 113,400 acres of land administered by the BLM. Ms. Kaufman is conducted the spatial analysis and documentation. Ms. Kaufman contributed to the production of 10 Lands with Wilderness Characteristics Unit Reports and a consolidated Summary Report.

AB 525 STRATEGIC PLAN: PHASE 1 AND 2 ALTERNATIVE PORT ASSESSMENT TO SUPPORT OFFSHORE WIND

California State Lands Commission (subcontractor to Moffatt & Nichol), 2022-present

To comply with AB 525 (i.e., requires agencies to develop strategic plan for offshore wind development in federal waters), California State Lands Commission is conducting an analysis of the feasibility of, and potential locations for, port(s) to support offshore wind activities along the central to southern coast of California for the Morro Bay Wind Energy Area. With respect to port infrastructure and capacity, CSLC released a study that examined the feasibility of constructing a new purpose-built port on the central California coast to support offshore wind facility staging and integration or operations and maintenance. This high-level desktop screening study examined coastal sites between San Francisco and Long Beach to identify potential underused or undeveloped sites of 30 to 100 acres. A variety of land use, engineering, and environmental "screening criteria" were used to narrow the field of suitable sites. Aspen's role in this analysis was to assess the land use impacts associated with 12 sites, and to rank these sites by the relative severity of the impacts. Aspen's role in this analysis was to assess the land use impacts associated with sites to support offshore wind development in Morro Bay Wind Energy Area (Phase 1) and along the entire CA coast (Phase 2), and to rank these sites by the relative severity of the impacts. Ms. Kaufman was responsible for the viewshed analysis of the proposed port sites using ArcGIS Pro. Additionally, she created static maps for the Marine Sanctuaries to support the project memo.

EASEMENT UPDATES AND ACQUISITION SUPPORT

Consumers Power Inc., 2022-2024

Aspen is providing support services to Consumers Power Inc. (CPI) for updating and acquiring utility easements. This work is in response to wildfires in 2020 that caused substantial damage to utility infrastructure. To increase power reliability, CPI is replacing many of the damaged utility lines with underground easements. Ms. Kaufman has provided QA/QC on GIS and parcel data, updated and maintained a database, created field maps (KMZs), and prepared static maps for easement packets.

PG&E DIABLO CANYON POWER PLANT DECOMMISSIONING AND FUTURE SITE REUSE PROJECT

County of San Luis Obispo, 2022

Aspen is currently preparing an EIR to evaluate impacts from the decommissioning of Diablo Canyon Power Plant. The EIR analysis will include three phases of decommissioning, with site decommissioning (Phase 1) and final site restoration (Phase 2) being analyzed at a project-level, and future site reuse (Phase 3) being analyzed at a program-level. Ms. Kaufman helped prepare the Future Site Reuse section and assisted with analysis of the project's cumulative impacts to Aesthetics as well as to Land Use, Planning and Agriculture. Particular issues of concern include the effects of waste transport on local communities such as the Cities of Pismo Beach and Santa Maria, and the Counties of San Luis Obispo and Santa Barbara.

CALIFORNIA DESERT CONSERVATION AREA (CDCA) PLAN OF 1980 AS AMENDED PLAN CONSOLIDATION

U.S. Bureau of Land Management, California Desert District, 2022

Aspen has provided support to the BLM to complete a current CDCA Plan consolidation effort, which began in 2016. The consolidation will include all amendments to the CDCA Plan of 1980 as Amended (sans project-specific amendments) through the WEMO amendment of 2019. Ms. Kaufman has assisted in organization and consolidation of a reader version, red-line version, and consolidated projected file. In addition, Ms. Kaufman prepared draft maps for the document. She was also responsible for the database organization for the project package.

SIX NEW COACHELLA VALLEY TRAILS PROJECT

U.S. Bureau of Land Management and Coachella Valley Mountains Conservancy, 2022

Aspen is preparing a joint NEPA and CEQA document (Environmental Assessment/Mitigated Negative Declaration) to analyze the construction and use of six new recreational trails in the Coachella Valley. The locations of the proposed trails are designed to provide recreational access to underserved communities. Ms. Kaufman evaluated environmental justice issues associated with the project, including whether the project would have a disproportionately high or adverse human health or environmental effect on minority populations or low-income populations, as well as any beneficial effects on these populations.

CALIFORNIA STATEWIDE FUELS PROGRAMMATIC EA

U.S. Bureau of Land Management, California State Office, 2022

Under contract to the BLM, Aspen is managing the preparation of a Programmatic Environmental Assessment (pEA) to address federal NEPA requirements for fuels reduction projects on 901,604 acres of BLM-administered lands. The pEA analyzes a suite of treatments to be used in fuel reduction projects within the range of habitats and resources. Ms. Kaufman prepared the Environmental Justice maps to visualize fuels treatment effects on minority populations and low-income populations statewide.

PROFESSIONAL AFFILIATIONS

- National Association of Environmental Professionals (NAEP) – Member (2023-present); NEPA, Environmental Justice, and GIS working groups
- Women in GIS – Board member and Mentorship committee chair (2022-2023); Member (2021-present)
- The Land Connection – Board member and Secretary (2018-2022); GIS mentor (as a part of ESRI's Small Nonprofit Organization Grant Initiative recipient; 2023-2024)
- Gamma Theta Upsilon (GTU) honor society in geography – Member (2021-present)

ADDITIONAL TRAINING, CONFERENCES, AND COURSES

- USC Geospatial Summit in Los Angeles, CA (February 2023)
- NAEP Environmental Justice Updates webinar (August 2023)
- Justice Week 2023 Virtual: Equity Empowered (October 2023)
- CalGIS Conference in Visalia, CA (March 2024)

PROFESSIONAL SKILLS

- Geographic Information Systems (GIS): ArcGIS Pro, ArcMap, ArcGIS Online, Community Analyst, Global Mapper
- Writing: technical writing and editing

Tim Keesey

REGISTERED PROESSIONAL FORESTER

Aspen environmental group

EDUCATION:

- B.S., Biology, University of California, Santa Cruz, 1994
- B.S., Environmental Studies, University of California, Santa Cruz, 1994

PREVIOUS EMPLOYMENT

- WTCK Ecological, Independent Consultant, Chico, CA, and Susanville, CA, 1999-present
- Conservation Project Coordinator, Butte Co. Resource Conservation District, Oroville, CA, 2016-2021
- Watershed Coordinator/District Manager, Honey Lake Valley RCD, Susanville, CA, 2011-2016
- Environnemental Science Manager/Natural Ressources Director, Susanville Indian Racheria, Susanville, CA, 2001-2011

PREVIOUS SELECT PROJECT EXPERIENCE

ECOLOGY

- Cradle Valley Timber Harvest Plan
- Rosenberg Non-Industrial Timber Harvest Plan
- Hungry Creek Timer Harvest Plan Willow Flycatcher Survey
- Susanville Indian Fuel Reduction and Watershed Restoration Project
- Susanville Indian Rancheria Environmental Documents
- Stewardship Plan and Community Assessment for the Susanville/Archery Children's Wildland Urban Interface Fuel Treatment Project
- Stewardship Plan and Community Assessment for the Janesville Wildland Urban Interface Fuel Treatment Project
- Stewardship Plan and Community Assessment for the Lake Forest Wildland Urban Interface Fuel Treatment Project
- Stewardship Plan and Community Assessment for the Clear Creek Wildland Urban Interface Fuel Treatment Project
- Stewardship Plan and Community Assessment for the Kramer Ranch Wildland Urban Interface Fuel Treatment Project
- Stewardship Plan and Community Assessment for the Little Valley Wildland Urban Interface Fuel Treatment Project
- Stewardship Plan for the South Ash Valley Ranch
- Stewardship Plan for the South Knob Ranch
- Stewardship Plan for the McClelland Ranch
- Hayden Hill Gold Min Revegetation Assessment
- Vegetation Monitoring of Landscape Scale Western Juniper Treatments in Lassen County, CA
- South Ash Valley Riparian Monitoring Project
- Lassen County Sage Grouse Radio telemetry Project
- Alturas Intertie Project, California, and Nevada
- Naval Petroleum Reserve Oil Exploration Biological Monitoring
- Annual Lassen County Safe Grouse Population Census
- Pine Creek Eagle Lake Trout Radio Telemetry Project

- AT&T Co-Axial Cable Removal Red Bluff to Mineral, CA
- Lassen National Forest Wildlife Surveys
- Alturas Intertie Raptor and Corvid Study
- Alturas Intertie Bird Mortality Study
- Skyline West Wildlife Surveys
- Tuscarora Natural Gas Pipeline Lateral from Wendel to Susanville
- Williams Telecom Fiber Optic Cable Installation, Sacramento to Pittsburg, CA
- Miramar Marine Base California Gnatcatcher Surveys
- Temecula Housing Development Wildlife Surveys
- Temecula Gold Corse Specimen Tree Mapping
- Fire Effects Analysis of Small and Medium Montane Mammal Populations

ENVIRONMENTAL COMPLIANCE (CEQA/NEPA)

- Diamond Mountain Watershed Restoration and Wildland Urban Interface Project CEQA Initial Study
- Honey Lake Valley Resource Conservation District Environmental Documents
- Susanville Indian Rancheria Environmental Documents

FORESTRY

- Schroeder Forest Management Plan
- Motorway Timber Harvest Plan
- Pecks Valley THP
- Walton Homestead THP
- Non-Industrial Timber Management Plan Timber Harvests
- Martinetti Ranch Inventory Repost
- Hulsman Ranch Forest Inventory Report

GRANT ACQUISITON AND MANAGEMENT

- North Butte County Road Inventory and Improvement Project
- Susan River Watershed Coordinator
- Lahontan Basins Integrated Regional Water Management Plan
- Susanville Indian Rancheria Environmental Protection Department
- Re-establishment of Wild Eagle Lake Rainbow Trout
- Current and historic Distribution of Freshwater Mussels within Five Watersheds
- Cradle Valley Indigenous Landscape Enhancement Project
- SIR Housing Water and Sewer Infrastructure Improvement Project
- Northeastern California NAGPRA Coalition
- SIR Tribal Youth Conservation Crew
- SIR Native Language Program
- SIR Integrated Resource Management Plan

CONSERVATION PLANNING

- Elk Valley Rancheria, California Integrated Resource Management Plan (IRMP)/Environmental Assessment
- Makai Ranch Agricultural Feasibility Study
- Strategy and Plan for the Cooperative Sagebrush Steppe Restoration Initiative: Restoring the Sagebrush Sea and Eastside Forest in Northeastern California

- Makai Ranch Conservation Plan
- Conservation Strategy for the Eagle Lake Rainbow Trout
- Kunia Loa Ridge Farms Conservation Plan
- Kamahameha Schools Punalu'u Agricultural Lands Soil and Water Conservation Plan Punalu'u, O'ahu'
- NRCS General Technical Note and Produce Manual, Planning and Implementation of Western Juniper Control

CERTIFICATIONS

- Registered Professional Forester (RFP) #3134
- CALFIRE Archaeology for Resource Professionals Certifications

Nader Khalil

ENVIRONMENTAL PLANNER

PROFILE: Nader Khalil is a dynamic Urban and Environmental Planner with 5 years of planning experience. He is known for a diverse portfolio in community development, urban revitalization, and large-scale master planning. Mr. Khalil specializes in sustainability principles to help build resilient and sustainable communities.

EDUCATION:

- Master of Urban Planning, California State University, Northridge, California, 2019
- B.S. Tourism, Hospitality, and Recreation Management, California State University, Northridge, California, 2017

PROFESSIONAL EXPERIENCE

CONTRACT AND TASK ORDER MANAGEMENT

ENVIRONMENTAL ASSESSMENT AND AIR QUALITY SERVICES ON-CALL CONTRACT

Los Angeles Department of Water and Power, 2006-2009, 2014-2017, 2017-2022, and 2022-2027

Mr. Khalil serves as the assistant to the Program/Contract Manager for Aspen's master Environmental Services and Air Quality Services on-call contract with the LADWP (2022-2027, 26 Task Orders thus far), the largest municipal utility in the United States. In this role, he helps with drafting proposals for the contract and supports various aspects of contract management.

RENEWABLE ENERGY PLANNING PROJECTS

SITING, TRANSMISSION, AND ENVIRONMENTAL PROTECTION PEAK WORKLOAD, INCLUDING NON-LITHIUM LONG DURATION ENERGY STORAGE

California Energy Commission (Contract #700-18-001: 10/1/2018 through 9/30/2023; Contract #700-22-003: 9/14/2022 through 8/31/2022; Contract #700-22-005: 8/30/2023 through January 31, 2025)

- **Soda Mountain Solar Project (2024-present).** Mr. Khalil is a technical specialist providing environmental analysis for this 300-MW photovoltaic and battery energy storage system proposed in San Bernardino County, to be located on land managed by the Bureau of Land Management. The applicant has applied for licensing through CEC's "opt-in" certification process. Mr. Khalil is preparing Staff Assessments/EIR sections for Land Use (including Agriculture and Recreation).
- **Replacement Tire Efficiency Program (2024-present).** Aspen is preparing a Programmatic EIR for the RTEP, which seeks to improve the energy efficiency of replacement tires through minimum standards and improving consumer access to information to ensure replacement tires for passenger cars and light-duty trucks sold in California are at least as energy-efficient as the original equipment tires sold on new vehicles. Implementation of the program requires the adoption of a regulation, which CEC will develop through a rulemaking proceeding. Mr. Khalil is serving as a technical specialist for the EIR.
- **Fountain Wind Project (2022-present).** Mr. Khalil is a technical specialist providing environmental review for this 205-MW wind project proposed in Shasta County, which is the first wind project to apply for licensing through CEC's "opt-in" certification process. Mr. Khalil is assisting with Staff Assessments and EIR sections.
- **Front of the Meter, Non-Lithium-Ion LDES to Support Critical Energy Resilience for Department of Defense (2023-present).** Mr. Khalil serves as Technical Specialist for an IS/MND analyzing the impacts of an energy

storage facility at Marine Corps Base Camp Pendleton. He authored the sections on land use, population and housing, public services, and recreation, and further conducted a detailed evaluation of potential wildfire risks associated with the facility.

PIER WIND TERMINAL DEVELOPMENT PROJECT

Port of Long Beach and U.S. Army Corps of Engineers, 2023-present

The Pier Wind Terminal Development Project has been proposed to support the State of California's goals for Offshore Wind production that were established in AB 525. The project involves the construction and development of a 400-acre terminal and transportation corridor at the Port of Long Beach for staging and integration (i.e., receiving, staging, storing and assembly) and floating foundation assembly of floating offshore wind turbine systems. The project is subject to both NEPA and CEQA regulatory review and compliance. Mr. Khalil is preparing the joint EIR/EIS technical analyses for Land Use (including Recreation and Coastal Access).

EASLEY RENEWABLE ENERGY PROJECT

Bureau of Land Management Palm Springs-South Coast Field Office, 2023-present

Utilizing a staffing firewall that Aspen has established for this project, Aspen is directly supporting the preparation of both the NEPA EA documentation and the CEQA EIR documentation for this proposed 650 MW solar photovoltaic and battery storage project. Given the project's location within a Development Focus Area as designated by the 2016 Desert Renewable Energy Conservation (DRECP) Plan Land Use Plan Amendment (LUPA), the NEPA documentation will tier off the DRECP LUPA Final EIS (2015). Mr. Khalil directed and executed public outreach initiatives, fostering community engagement and driving project awareness.

BLUFF TRAIL BATTERY ENERGY STORAGE SYSTEM PROJECT

County of San Luis Obispo, 2024-present

Aspen has been awarded this contract with the County of San Luis Obispo to prepare an EIR for a 500-MW battery energy storage system. Mr. Khalil is serving as the Deputy Project Manager as well as the technical specialist for the Land Use/Planning and Recreation analyses. The project will require a Conditional Use Permit from the County, and the EIR being prepared by Aspen will be used as the County's CEQA clearance.

MOKELUMNE PUMP STORAGE PROJECT

GreenGen Storage, LLC, 2024-present

Under contract to GreenGen, Aspen is preparing environmental studies to support an Integrated Licensing Process application to the Federal Energy Regulatory Commission. The project would include a pumped storage facility and conveyance tunnel system from Salt Springs Reservoir to Lower Bear Reservoir on National Forest System lands managed by Eldorado National Forest. Mr. Khalil is responsible for: (1) the NEPA-level Land Use and Wild and Scenic Rivers analyses for the Draft and Final Licensing Application; (2) the CEQA-level Land Use and Planning and Public Services analyses for the Information Package Document; and (3) updates to the Initial Study Report Land Use and Wild and Scenic Rivers analyses to address agency and stakeholder comments.

MALIBU LOWER-COST ACOMMODATIONS PUBLIC WORKS PLAN

Mountains Recreation and Conservation Authority, 2022-Present

Mr. Khalil is a technical specialist providing environmental analysis for the EIR. The proposed Public Works Plan would serve as the facilities plan for implementing a variety of park facility improvement projects, including camping, parking, and support facilities, as well as trail and other improvements, public outreach programs, and operations and management at the Malibu Bluffs Open Space in the City of Malibu, California, and the Upper Canyon portion of Ramirez Canyon Park in unincorporated Los Angeles County, California.

PREVIOUS EXPERIENCE

FOUNDER & CEO

CEQA Labs, Santa Clarita, California (2/2023 – 8/2023)

- Founder and CEO of CEQA Labs, a pioneering company specializing in AI-driven environmental planning solutions tailored for California and compliant with CEQA guidelines.
- Developed and implemented cutting-edge AI algorithms and models to optimize environmental planning processes, enabling accurate assessments and streamlined compliance with California-specific regulations.

ASSOCIATE PLANNER

CSG Consultants, Orange, California (7/2021 - 2/2023)

- Managed a diverse $2MM project portfolio, delivering all projects on time and up to 10% under budget.
- Led a cross-functional team of 10, achieving 100% KPIs and perfect staff retention.
- Ensured regulatory compliance and executed site analysis for Housing Element Updates in various California municipalities, achieving state approval.
- Directed community engagement initiatives, resulting in a 20% increase in community involvement.
- Conducted detailed reviews of building plans, parcel maps, and subdivision proposals to ensure regulatory compliance.
- Provided high-quality planning support and staff augmentation services across multiple municipalities.
- Researched and analyzed complex social, economic, and land use data to guide effective urban planning.
- Prepared and presented detailed planning staff reports for public hearings and city council meetings.
- Reviewed development projects using in-depth knowledge of municipal codes and procedures, ensuring full compliance with city regulations.

ENVIRONMENTAL PLANNER

ICF, Los Angeles, California (8/2020 - 7/2021)

- Managed a $20MM contract between ICF and Metro, leading a cross-functional team of 20 to fulfill Service Level Agreements for the California High Speed Rail Project.
- Created the organization's first client offerings and RFP databases, managing potential contracts over $100MM and establishing crucial VIP contact points.
- Oversaw operational budgets between $250K-$500K, directly managing a team of 5 for 10 environmental impact projects.
- Conducted business analysis of external agencies, identifying alignment opportunities which generated over $5MM in new business in under 2 years.
- Coordinated with senior government officials across 30 California cities and counties, managing key stakeholder relationships on statewide contracts.
- Served as deputy project manager for medium to large-scale projects, assisting in the preparation of CEQA/NEPA documents, presentations, technical memoranda, public notices, and other planning products.

PROJECT PLANNER

Meridian Consultants, Los Angeles, California (5/2019 - 8/2020)

- Demonstrated proficiency in problem-solving, written communication, and collaboration with team members and project managers.
- Managed complex projects requiring substantial client interaction and public visibility.
- Maintained working knowledge of CEQA and NEPA regulations for environmental projects.
- Conducted and assessed environmental research, gauging potential impacts of diverse projects.
- Participated in multidisciplinary professional teams, covering a wide range of disciplines including architecture, engineering, and various environmental areas.

- Utilized deep knowledge of topics such as air, land, and water to formulate mitigation strategies for environmental impacts.
- Engaged in effective communication with clients, business associates, subconsultants, and public agencies.
- Proficient with planning and environmental analysis concepts, practices, and procedures, relying on extensive experience and judgment to achieve goals.
- Assisted in the preparation of proposals, new client acquisition, and business development activities.
- Represented Meridian Consultants at industry meetings and functions, making presentations on innovative projects and new regulatory and technical approaches.

PROJECT PLANNING INTERN

Los Angeles City Planning, Los Angeles, California (1/2019 - 5/2019)

- Diligently reviewed an average of six case files daily for completeness, assisting applicants with necessary resubmittals.
- Assisted in disseminating case information to various departments and government agencies, ensuring seamless communication and coordination.
- Managed the finalization and distribution of important documents such as hearing notices, hold letters, termination letters, correction letters, and letters of determination.
- Evaluated development projects against architectural, design, zoning, specific plan, community plan, and general plan requirements to ensure compliance.

PROFESSIONAL AFFILIATIONS

- American Planning Associates (APA)
- Association of Environmental Professionals (AEP)
- Providence Health Core Committee Member
- Hurricane Katrina and Rita Strike Team
- CERT Program Emergency

Laiping Ng
Associate Electrical Engineer

Education:

Master of Science: Electrical Engineering - Power
California State University, Sacramento

Bachelor of Science: Electrical Engineering - Power
California State University, Sacramento

Power Certificate – EPRI

Experience:

April 1999 – Present:

- Review and evaluate electrical transmission system sections of the application to ensure that the transmission engineering aspects of the power plant, switchyards, substations, and the related facilities comply with applicable laws, ordinances, regulations, and standards (LORS).

- Prepare written analysis, which address the issues of the adequacy of proposed projects to meet applicable LORS.

- Perform load flow studies and fault analysis.

- Coordinate with CAISO, WSCC and other regulatory agencies and coordinate with utilities companies in the review and evaluation of the power plant siting process.

May 1991 – April 1999:

- Prepared engineering bid specifications for recommended lighting and HVAC projects. Evaluated contractor bids and recommended contractors to customers. Reviewed RFPs and RFQs. Evaluated, selected, and managed engineering consultants. Administrated and coordinated contracts.

- Designed electrical systems for indoor and outdoor lighting and lighting controls. Assisted in design cooling systems and controls for school buildings and office buildings. Reviewed and checked electrical lighting designs and drawings. Analyzed designs and made recommendations for effective actions.

- Performed facility energy audits and field surveys on schools, offices, hospitals and county jail facilities to identify energy efficiency improvements and cost estimate with respect to lighting and HVAC systems. Inspected lighting and HVAC system equipment installation.

- Worked in a Nonresidential Energy Efficiency Standards development team. Prepared and updated Standards concentrating on interior building illumination and indoor and outdoor flood lighting.

Aurie C. Patterson

ENVIRONMENTAL SCIENTIST AND GEOLOGIST

Aspen environmental group

PROFILE: Ms. Patterson is an environmental scientist and Professional Geologist 25 years of experience in preparation of Geology and Soils, Mineral Resources, Hazards and Hazardous Materials, and Public Safety technical sections for a variety of CEQA and NEPA documents. Her project experience includes large- and small-scale transmission projects (linear transmission line, and sub transmission line, and substation projects), utility-scale solar facilities, oil field revitalization projects, public facilities and buildings, power plants, schools, and petroleum and water pipelines. She has conducted Phase I environmental site assessments and initial studies for a variety of state and local public works projects. Additionally, she has experience in management of and implementation of geotechnical exploration plans for pipelines, bridges, tunnels, highways, and treatment plants; management and preparation of geologic hazard reports: in soil sampling, geologic logging of exploratory borings, fault logging and evaluation; and in groundwater projects such as well construction and rehabilitation, monitoring well construction and sampling, and groundwater characterization studies.

EDUCATION:

- Graduate Study, Geology, San Diego State University, 1990-1993
- BA, Geology, minor in Mathematics, San Jose State University, 1989

PROFESSIONAL EXPERIENCE

COMPASS ENERGY STORAGE PROJECT EIR

California Energy Commission, 2023-present

The project is an approximately 250-megawatt (MW) battery energy storage system (BESS) in the City of San Juan Capistrano on an approximately 13-acre project site. The project would be composed of lithium-iron phosphate batteries, or similar technology batteries, inverters, medium-voltage transformers, a switchyard, a collector substation, and other associated equipment to interconnect into an existing San Diego Gas & Electric (SDG&E) transmission line. This project is being completed under the CEC Opt-In program as authorized by Assembly Bill (AB) 205 and modified by AB 209. Ms. Patterson reviewed the Application submitted to the CEC for adequacy and completeness, submitted data requests, and is the author for the Hazards, Hazardous Materials, and Wildfire section for the Staff Assessment EIR. Potential issues include hazardous material use during project construction and operation and wildfire potential.

FOUNTAIN WIND PROJECT STAFF ASSESSMENT EIR

California Energy Commission, 2023-present

This project is the first being completed under the CEC Opt-In program as authorized by Assembly Bill (AB) 205 and modified by AB 209. The project is highly controversial and consists of installation a wind energy facility with up to 48 wind turbines with a maximum tip height of 610 feet, access roads, a substation and switchyard, and associated infrastructure. Ms. Patterson reviewed the Application submitted to the CEC for adequacy and completeness, submitted numerous data requests, and is the author for the Hazards, Hazardous Materials, and Wildfire section for the Staff Assessment EIR. The project is located on approximately 2,855 acres of private, leased forested land that is currently used for timber harvesting in unincorporated Shasta County. The project area is mapped as a very high fire hazard severity zone by CAL FIRE. Potential issues identified include hazardous material use during project construction and operation, aviation hazards, aerial fire firefighting hazards, and increased wildfire ignition potential.

STACK SVY03A DATA CENTER CAMPUS MND

California Energy Commission, 2023-present

Ms. Patterson is the author for the Hazards and Hazardous Materials section for the MND. The project includes a three-story data center building; twenty seven 2.75 MW diesel-fired emergency backup generators and a 1 MW generator arranged adjacent to building SVY03A; a 175 kW generator adjacent to the security building; an onsite substation; a PG&E switching station; and associated an associated transmission line. Potential issues identified include historical agricultural use and industrial uses near and adjacent to the site than may have resulted in migration of contamination to the project site. The Project site is in the City of Hayward in Alameda County.

SAN JOSE DATA CENTER BACKUP 04 CAMPUS EIR

California Energy Commission, 2023-present

Ms. Patterson is the author for the Hazards and Hazardous Materials section for the EIR. The project includes two data center buildings; thirty-two 3 MW paired stacked diesel-fired emergency backup generators arranged in four generation yards, with two each designed to serve the two data center buildings at the site; two administrative generators per building; two generators in the water storage yard; a substation; a PG&E switching station; and an associated transmission line. Potential issues identified include historical agricultural use and industrial uses near and adjacent to the site than may have resulted in migration of contamination to the project site. The Project site is in the City of San Jose in Santa Clara County.

BOWERS BACKUP GENERATING FACILITY EIR

California Energy Commission, 2022-2024

Ms. Patterson was the author for the Hazards and Hazardous Materials section for the EIR. Potential issues identified include historical agricultural use, potential presence of asbestos containing material and lead based paint in buildings to be demolished, and prior industrial use and identified previous environmental contamination at the Project site. The project includes thirty-two 3 MW diesel-fired emergency backup generators that will be stacked and arranged in a generation yard, each designed to serve the data center building at the site. The Project site is located in the City of Santa Clara in Santa Clara County.

LOWER HOBO AND DIAMOND CRESTVIEW FUEL MODIFICATION PREOJCT

City of Laguna Beach, 2023-2024

Ms. Patterson prepared the Geology and Soils section, with special emphasis on slope stability and landslides, for the IS/MND for fuel modification zones (FMZs) 16 (Lower Hobo) and FMZ 19 (Diamond Crestview) for the City's Fuel Break Program.

STACK TRADE CENTER PARK BACKUP GENERATING FACILITY EIR

California Energy Commission, 2022-2023

Ms. Patterson was the author for the Hazards and Hazardous Materials section for the EIR. Potential issues identified include historical agricultural use and prior industrial use and environmental contamination on a portion of the Project site. The project includes thirty-six 3 MW and two 1 MW diesel-fired emergency backup generators that will be stacked and arranged in two generation yards, each designed to serve one of the two data center buildings at the site. The Project site is located in the City of San Jose in Santa Clara County

WILDFIRE RISK REDUCTION, RELIABILITY, AND ASSET PROTECTION PROJECT

Western Area Power Administration and Trinity Public Utilities District, 2021-present

Ms. Patterson is the Lead Author of the EIR/EIS Water Resources and Floodplains impacts analysis for this high-profile and controversial project for Western Area Power Administration (WAPA) and Trinity Public Utilities District (Trinity PUD). The Project is intended to reduce fire risk and maintain critical electrical services in Trinity

County. The project is located within areas administered by a variety of land managers, including the BLM and the USFS.

GIBSON SOLAR FARM PROJECT

Yolo County, 2021-present

Ms. Patterson assisted in the preparation of the Hydrology and Water Quality section of the ISMND for the proposed 26MWh solar facility in Yolo County. The proposed parcel is in a Williamson Act Contract and the Project proposes to carry out agrivoltaics (the practice of agriculture in and around large-scale PV farms).

PORT OF LOS ANGELES ON-CALL

Port of Los Angeles, 2019-present

Under this on-call contract, Ms. Patterson prepared technical sections for environmental documents for several projects including development and redevelopment of facilities related to Port operation.

- **Berth 44 Boatyard** – Ms. Patterson has prepared the Geology & Soils and Hazards and Hazardous Materials sections of the IS/NOP that evaluated site preparation, construction, and operation of a boatyard at Berth 44. Site preparation would involve demolition of existing structures, backfilling, compacting, regrading, repairing the seawall and riprap, and dredging. Construction would involve installing concrete pads, docks, slips, utilities, and buildings to support boatyard operations. The IS/NOP was issued January 2024
- **Terminal Island Maritime Support Facility** – The Project consists of evaluation of the development of a truck and chassis parking lot at a currently unused site on Terminal Island in the Port of Los Angeles. Ms. Patterson prepared the Geology & Soils and Hazards and Hazardous Materials sections for the IS/NOP and the focused Hazards and Hazardous Materials section for the EIR. The IS/NOP was issued December 2023.
- **John S. Gibson Third-Party Review** – Ms. Patterson is providing third-party review of Geology & Soils and Hazards and Hazardous Materials issue areas for all applicant-prepared documents (IS/NOP, Draft EIR, Final EIR). The Project includes construction of a paved truck and chassis parking lot along West John Gibson Boulevard in San Pedro.
- **Goods Movement Workforce Training Facility** – Ms. Patterson prepared the Geology and Soils and Hazards and Hazardous Materials sections of the IS/NOP for construction and operation of a training facility for current and future POLA and POLB workers locate with the POLA.

IVANPAH-CONTROL PROJECT

California Public Utilities Commission, 2018-present

Ms. Patterson is the Leas Author of the Water Resources, Geology and Soils, and Hazards and Hazardous Materials sections for the EIR. SCE proposes to rebuild components of 358 miles of existing 115-kV subtransmission system, consisting of 5 segments spanning between 12 existing SCE substations, to remediate approximately 2,950 identified conductor clearance discrepancies. This would include removal and replacement of transmission poles, structures, and conductor, installation of fiber optic telecommunications line, and modifications at the associated substations. The EIR also analyzed three route alternatives. Impacts identified include seismic hazards due to numerous active fault crossings, unexploded ordinance due to former military use, soil contamination in areas of active and former agricultural use, and potential exposure of workers to Valley Fever coccidioides fungus spores. The Project crosses portions of Inyo, Kern, and San Bernardino Counties.

OBERON RENEWABLE ENERGY PROJECT

Intersect Power, LLC, 2021-2022

Ms. Patterson assisted with CEQA and NEPA document preparation and is preparing the Geology, Soils and Mineral Resources, Paleontological Resources, Hazards and Hazardous Materials, and Hydrology and Water Quality sections for the EIR and various sections of the EA. Potential issues identified include erosion, flooding, and water supply. This project includes a 500 MW solar facility, a BESS, a substation, a 500-kV gen-tie line, and other associated components near Desert Center in eastern Riverside County

STAGECOACH SOLAR PROJECT

California State Lands Commission, 2017-present

Ms. Patterson is assisting with CEQA document preparation and preparation of the Geology and Soils, Hazards and Hazardous Materials, and Paleontological Resources EIR sections for the controversial Stagecoach Solar Project EIR. The proposed Project consists of a 200 MW solar PV and energy storage facility on approximately 3,000 acres of leased State land in Lucerne Valley, and a 9.1-mile 220-kV generation-tie transmission line to interconnect at a proposed 7-acre SCE Calcite Substation. SCE Calcite Substation is undergoing CEQA review by the California Public Utilities Commission using the Stagecoach Solar Project EIR.

ARICA AND VICTORY PASS SOLAR PROJECTS

Clearway Energy Group, LLC, 2020-2022

Ms. Patterson prepared the Geology and Soils, Hazards and Hazardous Materials, and Hydrology and Water Quality Sections of the EIR and various sections of the EA for the Arica and Victory Pass Solar Projects in eastern Riverside County near the community of Desert Center. Potential issues identified include aeolian sand transport, erosion, destruction of paleontological resources, and water supply. The project includes the construction, operation, and decommissioning of a 265 MW and a 200 MW solar farms and associated infrastructure, and a 230kV transmission line. The projects are located adjacent to each other on BLM-administered federal lands.

RUBY VALLEY RESOURCE MANAGEMENT PLAN AMENDMENT

Bureau of Land Management, Nevada, 2020-2021

Ms. Patterson assisted in preparing the Reasonably Foreseeable Development Scenario (RFDS) for fluid mineral resources for the Ruby Valley Resource Management Plan Amendment EA. The RFDS provided a summary of fluid mineral resources (geothermal and petroleum), and potential exploration and development assumptions and scenarios for these resources in the Ruby Valley.

BLYTHE MESA SOLAR PROJECT

Blythe Mesa Solar II, LLC, 2021

Ms. Patterson prepared the NEPA Environmental Assessment for the Integrated Weed Management Plan for the portion of the 230-kV Gen-tie on BLM administered land, consisting of 5.2 miles and a ROW of 78 acres. Issue areas analyzed in detail include: invasive species, recreation, soils, soils, water quality, vegetation/special status/threatened and endangered species, and wildlife/special status/threatened and endangered species.

CERTIFICATIONS

Professional Geologist, California, License No. 7083

PUBLICATIONS

Patterson, A.C. and T.K. Rockwell, 1993, Paleoseismology of the Whittier Fault based on 3-Dimensional Trenching at Olinda Oil Field, Orange County, Southern California: GSA Abstracts with Programs, Cordilleran Section, v. 25, no. 5, p. 131.

FEHR PEERS

David B. Robinson, PE

Principal

EDUCATION

Bachelor of Civil Engineering, California State University, Sacramento

REGISTRATIONS

Traffic Engineer, California (TR 2201)

YEARS OF EXPERIENCE

Total: 30
With Firm: 26

AFFILIATIONS

Institute of Transportation Engineers (ITE)
Women's Transportation Seminars (WTS)

EXPERTISE

- Environmental Impact Analysis
- Land Use & Transportation Planning
- Travel Demand Modeling
- Sustainability Analysis
- Corridor Analysis
- Fee Study Nexus Analysis
- Project Development Studies
- On-Call Services

INSTRUCTURE/LECTURER

- SACOG Planning Commissioners Training Workshop – New Trends in Transportation Planning
- University of California, Berkeley Institute of Transportation Studies Technology Transfer Program, Successful Collaboration: Methods and Best Practices

ABOUT

David B. Robinson, PE, is a principal and registered traffic engineer with over 30 years of transportation planning experience. Dave brings industry-leading expertise in understanding the interaction between land use decisions and the local and regional transportation networks. He provides his clients with expert advice on changing policies and environmental regulations, such as the shifting focus from Level of Service to Vehicle Miles Traveled, and to help quantify and mitigate impacts related to land use decisions. Dave has an extensive background in travel demand model development and application and has applied his knowledge in travel forecasting to numerous project types including transportation impact analysis for CEQA and NEPA, land use transportation planning, traffic operations analysis for project development studies, and transportation, land use, and policy development planning studies.

HONORS AND AWARDS

• Author – State Route 99/Grant Line Road Interchange Project Report traffic analysis, recipient of the California Transportation Foundation 2009 TRANNY Award for Interchange Project of the Year.
• Author of - State Route 99/Sheldon Road Interchange Project Report traffic analysis, recipient of the ASCE Sacramento Section 2009 Outstanding Engineering Project Award (Construction).

RELEVANT PROJECT EXPERIENCE

• El Dorado County General Plan & DEIR (Adopted 2004) (El Dorado County, CA)
• El Dorado County EDCTC RTP EIR
• Silver Springs Parkway (El Dorado County, CA)
• US 50/Ponderosa Road Interchange PA/ED & PS&E
• SR 49 Realignment Study (El Dorado County, CA)
• Latrobe Road Connector Study (El Dorado Hills, CA)
• El Dorado County/City of Placerville SB 743 Implementation Plan
• Fire Evacuation Assessment, Marble Valley Specific Plan (El Dorado County, CA)
• Fire Evacuation Assessment, Lime Rock Valley Specific Plan (El Dorado County, CA)
• US 50 Travel Hot Spot Study (El Dorado County, CA)
• County Line Multimodal Transit Center (El Dorado County, CA)
• Central El Dorado Hills Specific Plan & EIR (El Dorado Hills, CA)
• Diamond Springs Mobility & Livable Community Plan (El Dorado County, CA)
• Lime Rock Valley Specific Plan (El Dorado County CA)
• Village of Marble Valley Specific Plan (El Dorado County, CA)

CALIFORNIA ENERGY COMMISSION

Kenneth Salyphone

PROFESSIONAL EXPERIENCE:

Program and Project Supervisor
California Energy Commission, Sacramento CA 09/2024 – Present

Mechanical Engineer
California Energy Commission, Sacramento CA 12/2019 – 09/2024

Mechanical Design Engineer, Lead
Micron Technology, Inc., Folsom CA 12/2013 – 12/2020

EDUCATION:

Master of Science in Mechanical Engineering, CSU Sacramento, 2013
Bachelor of Science in Mechanical Engineering, CSU Sacramento, 2010

CERTIFICATION/LICENSE:

Engineer-In-Training (EIT) Certified # 149129

Experience:

- Prepare CEQA analyses of facility design code compliance, noise and vibration, power plant efficiency, generating capacity determination, and power plant reliability aspects of power generation plants and related facilities. Includes evaluating facility design; potential impacts and appropriate mitigation measures; and determining the ability of the facility to comply with applicable laws, ordinances, regulations, and standards.
- Review and evaluate the mechanical engineering and related aspects of equipment as applied to thermal power plants related facilities. Includes the evaluation of system and equipment design, performance and reliability, as well as alternatives to the proposed facility.
- Develop compliance monitoring requirements and verifications related to noise and vibration and facility design to ensure that proposed facilities are properly constructed and operated in accordance with Energy Commission certification requirements.
- Monitor construction and operation of licensed facilities to assure their conformance with licensing requirements.
- Evaluate the efficiency and reliability implications of energy generation, supply, and end use strategies as input energy policy development.
- Evaluate existing and proposed governmental laws, ordinances, regulations, standards, and policies as they pertain to power plant design.
- Evaluate new and existing technologies for jurisdictional determinations.
- Provide expert witness testimony at commission hearings.

ARDALAN R. SOFI, PHD, PE

OBJECTIVE

MECHANICAL ENGINEER WITH +7 YEARS OF EXPERIENCE IN MECHANICAL DESIGN AND ANALYSIS IN ACADEMIA AND INDUSTRY. SELF-MOTIVATED AND PASSIONATE ENGINEER WITH PROVEN ANALYTICAL AND PRACTICAL SKILLS LOOKING FOR A FULL-TIME MECHANICAL DESIGN POSITION.

EXPERIENCE

- **California Energy Commission (Natural Resources Agency)**, Sacramento, CA, **Mechanical Engineer** *November 2022- Present*
  - Lead technical and mechanical engineering assessments and reviews of new and emerging power generation and storage technologies in support of California's clean energy goals.
  - Analyze and identify power generation and power storage research needs by assessing maturity levels, knowledge gaps, feasibility, and policy direction.
  - Evaluate the efficiency and reliability implications of power generation, supply, and end-use strategies as input to energy policy development.
  - Conduct compliance analyses of facility design codes, noise and vibration impacts, mechanical equipment, pressure vessels, tanks, piping, power plant efficiency, battery energy storage systems, and power plant reliability aspects for power plant Notices of Intent and Applications for Certification.
- **CALTRANS**, Oakland, CA, **Mechanical Engineer** *March 2022- November 2022*
  - Performed professional design work, specification preparation, cost estimating, and inspection work involved in designing, constructing, and maintaining mechanical facilities, including vehicular tunnels, water drainage pumping plants, sewage lift stations, and other transportation-related facilities. Systems in mechanical facilities include gear trains, driveshafts, pneumatics, hydraulics, motors, controls, machinery brakes, HVAC, fans, and pumps.
  - Checks designs, plans, specifications, and cost estimates for in-house designed and consultant-designed transportation facilities to ensure conformance with Office and Department standards for accuracy, and applicable codes.
  - Provided construction engineering support for infrastructure projects by reviewing shop plans, equipment lists, and inspecting and testing completed work for compliance with contract documents
  - Produced reports and analyses summarizing the condition of the facility or system after maintenance inspections and including recommendations and estimates for necessary repairs.
- **CALTRANS**, Oakland, CA, **Transportation Engineer** *November 2021- March 2022*
  - Conducted FCM, SFM, and routine, damage, and in-depth inspections using NDT on transportation infrastructure.
  - Produced comprehensive written reports detailing inspection findings, quantities and condition states of elements and defects, maintenance work recommendations, and inventory data using a computerized Bridge Management System.
  - Performed miscellaneous engineering, training, and administrative functions related to inspections and maintenance of bridges and overhead signs as directed by the Branch Chief or Office Chief.
- **AHMCT Research Center**, University of California, Davis, CA, **Research Assistant** *September 2018-September 2021*
  - Developed FEA and DEM model for thermomechanical modeling of Additive Manufacturing (AM) process.
  - Designed and developed a deep learning model capable of sub-second thermomechanical analysis of the SLS process.
  - Developed Deep Learning models for the determination of macroscopic mechanical properties of AM structures.
  - Developed a nonlinear lumped parameter model for collision between material bodies with strain hardening effects.
  - Developed an ANN model for evaluation of the compliance behavior of material bodies during elastoplastic collision.
- **CMSSL Research Center,** California State University, Northridge, CA, **Research Assistant** *August 2015-July 2017*
  - Developed a nonlinear 3D FEA code for stress-strain analysis of laminated fiber-reinforced composite structures.
  - Designed and analyzed a smart soft composite robotic finger using large deformable composite beams, leading to the development of a functional prototype with improved flexibility and control.
  - Machine Learning (ML) models for sub-second evaluation of stress and strain fields in composite structures, allowing for faster and more accurate analysis of structural performance.
- **DDAB Engineering,** Tarzana, CA, **MEP Engineer** *May 2015-August 2017*
  - Designed Plumbing, HVAC, and electrical systems for residential and commercial buildings
  - Developed Schematic and Design Drawings for Building Mechanical and Electrical Systems with AutoCAD and Revit MEP
  - Prepared T24 report with Energy pro 9 and CBECC 2019 software to meet 2019 Energy Code for California
- **SAIPA Heavy Dies Manufacturing,** Karaj, Iran, **Mechanical Design Intern** *June 2013-January 2014 & June 2013-January 2014*
  - Designed and developed press tools, milling, and assembly fixture for the automobile industry

- Assisted technical staff in the development and implementation of the manufacturing processes
- Developed CAD models of camshaft follower mechanism with CATIA for simulation purposes

SKILLS

- Strong understanding of Automation of Mechanical System, Solid Mechanics, Mechanical Design, Structural Analysis, physical modeling of engineering systems, Multiphysics modeling, Data-Driven Modeling of Engineering Systems
- California Principles and Practice of Engineering License (PE Mechanical, M 40655)
- Programming Languages: Python, SQL, Octave, MatLab, Java, Scala, C/C++, R
- Engineering software: SolidWorks, CATIA V5 R20, NASTRAN in CAD, ANSYS, PowerMill, AutoCad, Revit MEP
- Data Science Packages and Distributed Computing Technologies: Numpy, Pandas, Scikit-Learn, Keras, Tensorflow, Matplotlib, seaborn, Anaconda, Jupyter, MySQL, Hadoop
- Data Science Related Coursework: Deep Learning Specialization, TensorFlow in Practice Specialization, Python for Data Science and Machine Learning Bootcamp, Complete Guide to TensorFlow, The Complete SQL Bootcamp 2020

PUBLICATION

- **Sofi, A. R.**, Ravani, B., "Sub-second Prediction of the Heatmap of Powder-Beds in Additive Manufacturing using Deep Encoder-Decoder Convolutional Neural Networks", *Journal of Computing and Information Science in Engineering* (Accepted)
- Nasrollahzadeh, A. A., **Sofi, A. R.**, Ravani, B., "Factors Contributing to Roadside Work Zone Collisions", *Journal of Accident Analysis & Prevention 2021,* vol. 158, p. 106203, Aug. 2021, doi: 10.1016/j.aap.2021.106203
- **Sofi, A. R.**, Ravani, B., "Determination of Aggregate Elastic Properties of Powder-Beds in Additive Manufacturing using Convolutional Neural Networks", *Leibniz International Proceedings in Informatics Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany.*
- Stronge, W. J., **Sofi, A. R.**, Ravani, B., "Computing the composite coefficient of restitution for inelastic impact of dissimilar bodies," *International Journal of Impact Engineering*, vol. 133, p. 103333, Nov. 2019, doi: 10.1016/j.ijimpeng.2019.103333.
- Bishay, P. L., **Sofi, A. R.**, "Sensitivity analysis of a smart soft composite robotic finger design using geometrically nonlinear laminated composite finite beam elements," *Journal of Materials Today Communications,* vol. 16, 111-118, 2018.
- **Sofi, A. R.**, Bishay, P. L., Atluri, S. N., "Explicit tangent stiffness matrix for the geometrically nonlinear analysis of laminated composite frame structures," *Journal of Composite Structures,* vol. 187, 566-578, 2018.

EDUCATION

Ph.D. in Mechanical Engineering, **University of California**, Davis (**GPA: 3.90**) *September 2021*
Dissertation: "Reduced-Order Modeling of Mechanical Interactions Between Material Bodies."

M.Sc. in Mechanical Engineering, **California State University**, Northridge (**GPA: 3.89**) *May 2017*
Dissertation: "Geometrically Nonlinear Analysis of Laminated Composite Space Frame Structures."

B.Sc. in Mechanical Engineering, **Azad University**, Tehran (**GPA: 3.7**) *June 2013*
Concentration: Mechanical Design and Manufacturing

HONORS & AWARDS

- Edison scholarship for graduate students in science, technology, engineering, and mathematics (STEM) *August 2016*
- Sally Casanova Pre-Doctoral Scholarship *June 2016*
- Outstanding Academic Achievement (Best Graduate Student in the MEA Department) *May 2017*

Alexandra D. Syphard, Ph.D.

Conservation Biology Institute

Dr. Alexandra Syphard is a research ecologist who investigates landscape change that results from the interplay between human and natural disturbances, especially wildfire, urban development, and climate change. She uses a variety of spatial analytical and modeling methods to investigate how change has occurred in the past, how it is likely to occur in the future, and what types of ecological impacts are likely to result. She also envisions how alternate management scenarios may differentially impact the biological and social integrity of different landscapes. Alexandra works on issues related to vegetation dynamics and wildfire in Mediterranean ecosystems; fire science and ecology; effects of multiple threats to native vegetation communities; biogeography and species distribution modeling; land use / land cover change; and the influence of humans on fire regimes.

EDUCATION

2005 – Ph.D., San Diego State University and University of California, Santa Barbara, Geography.

1998 – MES, Virginia Commonwealth University, Environmental Studies.

1994 – MPH, Medical College of Virginia, Public Health.

1992 – BA, University of Mary Washington, English/communications.

EMPLOYMENT HISTORY

2015-current. **Associate Editor**, Diversity & Distributions

2011-current. **Adjunct Professor, Geography, San Diego State University**, CA.

2007-current. **Senior Research Scientist, Conservation Biology Institute,** La Mesa, CA.

2007-2008. **Postdoctoral Fellow, Biology, San Diego State University**, CA.

2005-2007. **Postdoctoral Fellow, Forest & Wildlife Ecology, University of Wisconsin**, Madison, WI.

1998-1999. **GIS Analyst/Environmental Planner, Vanasse Hangen Brustlin**, Williamsburg, VA.

1995-1998. **Publications writer, Alliance for the Chesapeake Bay**, Richmond, VA.

SELECT RESEARCH EXPERIENCE

2017 — Linked socio-environmental responses to destructive wildfire: Are fires 'hot moments' for transformative adaptation? National Socio-Environmental Synthesis Center (SESYNC).

2017 — Sage underwriters, fire insurance company scientific support

2017 — Climate, land use, and wildfire. University of California, Berkeley

2015 — Global change and wildfire. USGS Western Ecological Research Station.

2015 — Fire and invasive grass modeling in the California desert. DRECP.

2015 – 2019 — Balancing fire risk with resource protection under global change. USGS Western Ecological Research Station.

2014 — Land use planning and wildfire. University of California, Berkeley.

2011-2012 — Decision support for climate change adaptation and fire management strategies for at-risk species in southern California. California Landscape Conservation Cooperative.

2011-2017 — Collaborative Research: Do microenvironments govern macroecology? National Science Foundation.

2009-2013 — Understanding and improving fire management for Marine Corps Base Camp Pendleton. Department of Defense.

2008-2013 — Urban growth and fire risk modeling. USGS Western Ecological Research Center.

2008-2012 — Quantitative Assessment of the effect of fuel manipulation projects on fire behavior and urban loss. USGS Western Ecological Research Center.

2008-2011 — The persistence of biodiversity in southern California under future land-use change scenarios. National Science Foundation.

PUBLICATIONS

Journal articles

xx **Syphard, A.D.,** Brennan, T.J., Keeley, J.E.. Drivers of chaparral vegetation type conversion to grassland in coastal Southern California. In review.

xx **Syphard, A.D.,** Davies, I.D., Serra-Diaz, J.M., Regan, H.M., Franklin, J., Midgley, G.F., Hannah, L., Flint, L., Flint, A., Davis, F.W. How important is the species' establishment niche in mediating simulated range shifts under global change? In preparation.

xx Keeley, J.E., **Syphard, A.D.** Impact of ignition sources on wildfires in California. In review.

xx Tracey, J.A., Rochester, C.J., Hathaway, S.A., Preston, K.L., Syphard, A.D., Vandergast, A.G., Diffendorfer, J.E., Franklin, J., MacKenzie, J.B., Oberbauer, T.A., Tremor, S., Winchell, C., and Fisher, R.N. Prioritizing conserved areas threatened by wildfire and fragmentation for monitoring and management. In review.

62 Radeloff, V.C., Helmers, D., Alexandre, P., Bar Massada, A., Butsic, V., Hawbaker, T.J., Kramer, A., Martinuzzi, S., Mockrin, M.H., **Syphard, A.D.,** and Stewart, S.I. In review. Rapid growth of the Wildland Urban Interface from 1990 to 2010 across the United States exacerbates wildfire problems. Proceedings of the National Academy of Sciences of the United States of America.

61 **Syphard, A.D.,** Keeley, J.E., Pfaff, A., Ferschweiler, K. 2017. Human presence diminishes the importance of climate in driving fire activity across the United States. Proceedings of the National Academy of Sciences of the United States of America 114: 13750-13755.

60 Keeley, J.E., **Syphard, A.D.** 2017. Different historical fire-climate patterns in California. International Journal of Wildland Fire 26: 253-268.

59 **Syphard, A.D.,** Keeley, J.E., Abatzoglou, J.T. 2017. Trends and drivers of fire activity vary across California aridland ecosystems. Journal of Arid Environments 21: 140-147.

58 **Syphard, A.D.,** Brennan, T.J., Keeley, J.E. 2017. The importance of building construction materials relative to other factors affecting structure survival during wildfire. International Journal of Disaster Risk Reduction 21: 140-147.

57 Davis, F.W., Sweet, L.C., Serra-Diaz, J.M., McCullough, I.M., Dingman, J.R.,Flint, A.L., Flint, L.E., Franklin, J., **Syphard, A.D.,** Regan, H.M., Moritz, M.A., Hannah, L., Redmond, K., Sork, V.L. 2016. Shrinking windows of opportunity for oak seedling establishment in southern California mountains. Ecosphere 7.

56 Keeley, J.E., and **Syphard, A.D**. 2016. Climate change and future fire regimes: Examples from California. Geosciences. 2016: 37.

55 **Syphard, A.D.,** Keeley, J.E. 2016. Historical reconstructions of California wildfires vary by data source. International Journal of Wildland Fire 25: 1221-1227.

54 Franklin, J., Serra-Diaz, J.M., **Syphard, A.D**., Regan, H.M. 2016. Linking big data across scales for understanding plant community dynamics. Global Ecology and Biogeography 26: 6-17.

53 **Syphard, A.D.,** Butsic, V., Keeley, J.E., Bar-Massada, A, Tracey, J. 2016. Setting priorities for private land conservation in fire-prone landscapes: Are fire risk reduction and biodiversity conservation competing or compatible objectives? Ecology and Society 21: 3.

52 Butsic, V., **Syphard, A.D**., Keeley, J.E., Bar Massada, A. Can private land conservation reduce wildfire risk to homes? 2017. A case study in San Diego County, California, USA. Landscape and Urban Planning 157: 161-169.

51 Alexandre, P.M. Stewart, S.I., Mockrin, M.H., Keuler, N.S., Clayton, M.K., Bar-Massada, **A., Syphard,** A.D., Radeloff, V.C. 2016. Factors related to building loss due to wildfires in the conterminous United States. Ecological Applications 26: 2323-2338.

50 Franklin, J., Serra-Diaz, J.M., **Syphard, A.D**., Regan, H.M. 2016. Global change and terrestrial plant community dynamics. Proceedings of the National Academy of Sciences of the United States of America 113: 3725-3734.

49 McCullough, I.M., Davis, F.W., Dingman, J.R., Flint, L.E., Flint, A.L., Serra-Diaz, J.M., **Syphard, A.D.,** Moritz, M.A., Hannah, L., Franklin, J. 2016. High and dry: high elevations disproportionately exposed to regional climate change in Mediterranean-climate landscapes. Landscape Ecology 31: 1063-1075.

48 Serra-Diaz, J.M., Franklin, J., Sweet, L., McCullough, I.M., **Syphard, A.D.,** Regan, H.M., Flint, L.E., Flint, A.L., Dingman, J.R., Moritz, M.A., Redmond, K.

Hannah, L., Davis, F.W. 2015. Averaged 30-year climate change projections mask opportunities for species establishment. Ecography 38: 001-002.

47 Serra-Diaz, J.M., Dillon, W.W., Franklin, J., **Syphard, A.D.,** Davis, F.W., Meentenmeyer, R.K. 2015. California forests show early indications of both range shifts and local persistence under climate change. Global Ecology and Biogeography 25: 164-175.

46 Alexandre, P.M., Stewart, S.I., Mockrin, M.H., Keuler, N.S., **Syphard, A.D**., Bar Massada, A., Clayton, M.K., Radeloff, V.C. 2015. The relative impacts of vegetation, topography and spatial arrangement on building loss to wildfires in case studies of California and Colorado. Landscape Ecology 31: 415-430.

45 Hannah, L., Flint, L.,**Syphard, A.D.,** Moritz, M.A. and Hall, A, Buckley, L.B. 2015. Place and Process in Conservation Planning for Climate Change: a reply to Keppel & Wardell-Johnson. Trends in Ecology and Evolution 169: 5347.

44 Serra-Diaz, P., Scheller, R.M., **Syphard, A.D**., Franklin, J. 2015. Disturbance and climate microrefugia mediate tree range shifts during climate change. Landscape Ecology 2015: 1-15.

43 Conlisk, E., **Syphard, A.D.,** Franklin, J., and Regan, H.M. 2015. Predicting the impact of fire on a vulnerable multi-species community in a dynamic vegetation model. Ecological Modelling 301: 27-39.

42 **Syphard, A.D.,** Keeley, J.E, 2015. Location, timing, and extent of wildfire varies by cause of ignition. International Journal of Wildland Fire 24: 37-47.

41 Keeley, J.E., and **Syphard, A.D.** 2015. Different fire-climate relationships on forested and non-forested landscapes in the Sierra Nevada ecoregion. International Journal of Wildland Fire 24: 27-36.

40 Moritz, M.A., Batllori, E., Bradstock, R.A., Gill, A.M., Handmer, J., Hessburg, P.F., Leonard, J., McCaffrey, A., Odion, D., Schoennagel, T, **Syphard, A.D.** Learning to coexist with fire. 2014. Nature 515: 58-66.

39 Penman, T.D., Collins, L., **Syphard, A.D**., Keeley, J.E., Bradstock, R.A. 2014. Relative influence of fuels, weather and the built environment on the exposure of property to wildfire in San Diego, California. PLoS ONE 10):e111414

38 **Syphard, A.D.,** Brennan, T.J., Keeley, J.E., 2014. The role of defensible space for residential structure protection during wildfires. International Journal of Wildland Fire 23: 1165-1175.

37 Hannah, L., Flint, L.,**Syphard, A.D.,** Moritz, M.A. and Hall, A, Buckley, L.B. 2014. Fine-scale modeling of vegetation response to climate change. Trends in Ecology and Evolution 29: 390-397.

36 **Syphard, A.D.,** Bar Massada, A., Butsic, V., and Keeley, J.E. 2013. Land use planning and wildfire: development policies influence future probability of housing loss. PLoS ONE 8(8): e71708.

35 Franklin, J., Regan, H.M., and **Syphard, A.D**. 2013. Linking spatially explicit species distribution and population models to plan for the persistence of species under global change. Environmental Conservation 41: 97-109.

34 **Syphard, A.D.,** Regan, H.M., Franklin, J., Swab, R.M., and Bonebrake, T.C. 2013. Does functional type vulnerability to multiple threats depend on spatial context in Mediterranean-climate ecosystems? Diversity and Distributions 19: 1263-1274.

33 Beltran, B.J., Franklin, J., **Syphard, A.D.,** Regan, H.M., Flint, L.E., Flint, A.L., 2013. Effects of climate change and urban development on the distribution and conservation of vegetation in a Mediterranean Type Ecosystem. International Journal of Geographical Information Science 28: 1561-1589.

32 Bonebrake, T.C., **Syphard, A.D.,** Regan, H.M., Franklin, J., Anderson, K.E., Mizerek, T., Winchell, C. 2014. Fire management, managed relocation and land conservation options for a rare shrub species under global change. Conservation Biology 28: 1057-1067.

31 Serra-Diaz, P., Franklin, J., Ninyerola, M., Davis, F.D., Syphard, A.D., Regan, H.M., Ikegami, M. 2013. Species-specific exposure to climate change in time and space: from climate velocity to bioclimatic-velocity. Diversity and Distributions 20: 169-180.

30 Franklin, J., Davis, F.W., Ikegami, M., Syphard, A.D., Flint, L.E., Flint, A.L., Hannah, L. 2012. Modeling plant species distributions under future climates: how fine-scale do climate projections need to be? Global Change Biology 19: 473-483.

29 Conlisk, E., **Syphard, A.D.,** Franklin, J., Flint, L., Flint, A., Regan, H.M. 2013. Uncertainty in assessing the impacts of global change with spatially dynamic population models. Global Change Biology18: 858-869.

28 Bar-Massada, A., **Syphard, A.D.,** Stewart, S.I., Radeloff, V.C. 2012. Wildfire ignition modeling: a comparative study in the Huron National Forest, Michigan, USA. International Journal of Wildland Fire 22: 174-183.

27 Price, O.F., Bradstock, R.A., Keeley, J.E., **Syphard, A.D.** 2012. Antecedent fire area has no effect on wildfire area in coastal southern California. Journal of Environmental Management 113: 301-307.

26 **Syphard, A.D.,** Keeley, J.E., Bar Massada, A., Brennan, T.J., Radeloff, V.C. 2012. Housing arrangement and location determine the likelihood of housing loss due to wildfire. PLoS ONE 7: e33954. doi:10.1371/journal.pone.0033954.

25 Conlisk, E., Lawson, D., **Syphard, A.D**., Franklin, J., Flint, A., Flint, L., Regan, H.M. 2012. The roles of dispersal, fecundity, and predation on the population viability of an oak species (Quercus engelmannii) under global change. PLoS ONE 7(5): e36391. doi:10.1371/journal.pone.0036391.

24 Regan, H.M. **Syphard, A.D.,** Franklin, J., Swab, R. Markovchick, L. Flint, A., Flint, L., Zedler, P. 2012. Evaluation of assisted colonization strategies under climate change for a rare, fire-dependent plant. Global Change Biology 18: 936-947.

23 Scheller, R.M., Spencer, W.D., Rustigian, H., **Syphard, A.D.,** Ward, B.W., Strittholt, J.R. 2011. Using stochastic simulation to evaluate competing risks of wildfires and fuels management on an isolated forest carnivore. Landscape Ecology 26: 1491-1504.

22 Syphard, A.D., Clarke, K.C., Franklin, J., Regan, H.M.., McGinnis, M. 2011. Forecasts of habitat loss and fragmentation due to urban growth are sensitive to source of input data. Journal of Environmental Management 92: 1882-1893.

21 **Syphard, A.D.,** Keeley, J.E., Brennan, T.J. 2011. Comparing the role of fuel breaks across southern California national forests. Forest Ecology and Management 26: 2038-2048.

20 **Syphard, A.D.,** Keeley, J.E., Brennan, T.J. 2011. Factors affecting fuel break effectiveness in the control of large fires in the Los Padres National Forest, California. International Journal of Wildland Fire 20: 764-775.

19 **Syphard, A.D.,** Scheller, R.M. Ward, B.C. Spencer, W.D. Strittholt J.R. 2011. Simulating landscape-scale effects of fuels treatments in the Sierra Nevada, California, USA. International Journal of Wildland Fire 20:364-383.

18 Bar Massada, A., **Syphard, A.D.,** Radeloff, V.C., Hawbaker, T.J., Stewart, S.I. 2011. Effects of ignition models on the spatial patterns of simulated fires. Environmental Modelling & Software 26: 583-592.

17 Sturtevant, B.R., Scheller, R.M., Miranda, B.R., Shinneman, D., **Syphard, A.D.** 2010. Simulating dynamic and mixed-severity fire regimes: A process-based fire extension for LANDIS-II. Ecological Modelling 220: 3380-3393.

16 **Syphard, A.D.,** Franklin, J. 2010. Species' traits affect the performance of species' distribution models for plants in southern California. Journal of Vegetation Science 21: 177-189.

15 **Syphard, A.D.,** Franklin, J. 2009. Differences in spatial predictions among species distribution modeling methods vary with species traits and environmental predictors. Ecography 32: 907-918.

14 **Syphard, A.D.,** Radeloff, V.C., Hawbaker, T.J., Stewart, S.I. 2009. Conservation threats due to human-caused increases in fire frequency in Mediterranean climate ecosystems. Conservation Biology 23: 758-769.

13 **Syphard, A.D.,** Stewart, S.I., McKeefry, J., Hammer, R., Fried, J., Holcomb, S., Radeloff, V.C. 2009. Assessing housing growth when census boundaries change. International Journal of Geographic Information Science 23: 859-876.

12 Hawbaker, T.J., Radeloff, V.C., **Syphard, A.D.,** Zhu, Z., Stewart, S.I. 2009. Detection rates of the MODIS active fire product. Remote Sensing of the Environment 112: 2656-2664.

11 **Syphard, A.D**., Radeloff, V.C., Keuler, N.S., Taylor, R.S., Hawbaker, T.J., Stewart, S.I., and Clayton, M.K. 2008. Predicting spatial patterns of fire on a southern California landscape. International Journal of Wildland Fire 17: 602 - 613.

10 **Syphard, A.D**., Yang, J., Franklin, J. He, H.S., Keeley, J.E. 2007. Calibrating a forest landscape model to simulate high fire frequency in Mediterranean-type shrublands. Environmental Modelling & Software 22: 1641-1653.

9 **Syphard, A.D.,** Radeloff, V.C. Keeley, J.E. Hawbaker, T.J. Clayton, M.K.Stewart, S.I., Hammer, R.B. 2007. Human influence on California fire regimes. Ecological Applications 17: 1388-1402.

8 **Syphard, A.D.,** Clarke, K.C., Franklin, J. 2007. Simulating frequent fire and urban growth in southern California coastal shrublands, USA. Landscape Ecology 22: 431-445.

7 **Syphard, A.D**., Franklin, J., Keeley, J.E. 2006. Simulating the effects of frequent fire on southern California coastal shrublands. Ecological Applications 16: 1744-1756.

6 Franklin, J, **Syphard, A.D**., He, H.S., Mladenoff, D.J. 2006. The effects of altered fire regimes on patterns of plant succession in the foothills and mountains of southern California. Ecosystems 8: 885-898.

5 **Syphard, A.D**., Clarke, K.C., Franklin, J. 2005. Using a cellular automaton model to forecast the effects of alternate scenarios of urban growth on habitat fragmentation in southern California. Ecological Complexity 2: 185-203.

4 Akcakaya, R., Franklin, J., **Syphard, A.D.,** Stephenson, J. 2005. Viability of the sage sparrow under altered fire regimes: integrated landscape and metapopulation modeling. Ecological Applications 15: 521-531.

3 **Syphard, A.D.,** Franklin, J. 2004. The effect of aggregation of landscape attributes on the simulation of fire disturbance and succession using the LANDIS model. Ecological Modelling 180: 21-40.

2 **Syphard, A.D**., Garcia, M. W. 2001. Human- and beaver- induced wetland changes in the Chickahominy River watershed from 1953 to 1994. Wetlands 21: 342-353.

1 Franklin, J., **Syphard, A.D.** Mladenoff, D.J. He, H.S., Simons, D.K., Martin, R.P., Deutschman, D., O'Leary, J.F. 2001. Simulating the effects of different fire regimes on plant functional groups in Southern California. Ecological Modelling 142: 261 - 283.

Book Chapter

8 **Syphard, A.D**., Gershunov, A., Lawson, D., Huerta, H.R., Guzman-Morales, J., Jennings, M. San Diego Wildfires: Drivers of Change and Future Outlook. A Report for: California's Fourth Climate Change Assessment. In press.

7 Ganteaume, A., **Syphard, A.D**. Ignition sources. Encyclopedia of Wildland Urban Interface Fires. In press.

6 **Syphard, A.D.,** Brennan, T.J., Keeley, J.E., In press. Chaparral Landscape Conversion in Southern California, In The Ecological Value of Chaparral Landscapes: Ecosystem Services and Resource Management. Springer.

5 Keeley, J.E., **Syphard, A.D.** In press. South coast bioregion. Chapter in: J. W. van Wagtendonk, N. G. Sugihara, S. L. Stephens, A. E. Thode, K. E. Shaffer, and J. Fites-Kaufman. Fire in California's Ecosystems: Second Edition, Revised. University of California Press, Berkeley, California, USA.

4 Holmes, P.M., **Syphard, A.D.** 2015. Land use change in an urbanizing world: a comparison between City of Cape Town, South Africa and Los Angeles County, CA. In The Biology of Mediterranean Type Ecosystems. Oxford University Press. In press.

3 Halsey, R.W., **Syphard, A.D.** 2015. High intensity fire in chaparral: Cognitive dissonance in the shrublands. In DellaSala, D.A., Hanson, C.T. (eds.) The Ecological Importance of Mixed-Severity Fires Nature's Phoenix. Elsevier Inc. pp. 177-209.

2 Keeley, J.E., **Syphard, A.D.,** and Fotheringham, C.J. 2013. The 2003 and 2007 wildfires in southern California. In: Boulter, S., J. Palutikof, D.J. Karoly, D. Guitart (eds.) Natural Disasters and Adaptation to Climate Change. Oxford: Cambridge University Press. 204p.

1 Miller, C.,Abatzoglou, J., Brown, T., **Syphard, A.D.** 2011. Wilderness fire management in a changing environment. In: The Landscape Ecology of Fire. Edited by Don McKenzie, Carol Miller, Don Falk, and Lara-Karena Kellogg. Pp. 269-294.

FIRST AUTHOR PRESENTATIONS & INVITED LECTURES

Environmental correlates with type conversion. The 3rd California chaparral symposium: Global change and the vulnerability of chaparral ecosystems. Arcadia, CA, 2018.

Housing patterns, wildfire, and community vulnerability: Historical perspective and future possibilities. Living with Fire Symposium, Santa Rosa, CA, 2018.

Fire activity in aridland ecosystems. State of Biodiversity Symposium San Diego Natural History Museum. San Diego, CA, 2018.

Are biodiversity conservation and fire risk reduction competing or compatible objectives in fire-prone landscapes? 7th International Fire Ecology & Management Congress. Orlando, FL. 2017.

How important is the species' establishment niche in mediating simulated range shifts in a dynamic, disturbance-prone landscape? International Association of Landscape Ecology Annual Meeting. Baltimore, MD. 2017.

Are fire risk reduction and biodiversity conservation competing or compatible objectives in fire-prone landscapes? MEDECOS Conference XIII. Olmue, Sevilla, Spain. 2017.

Chaparral landscape conversion after a century of global change. Natural Areas Conference. Davis, CA. 2016.

Modeling vegetation dynamics under global change: Approaches, challenges, and examples. Invited speaker at annual symposium for the California Native Plant Society. Morro Bay, CA. 2016.

Balancing fire risk reduction with biodiversity conservation: Lessons from Southern California. Invited keynote speaker at Forest Fire 2016, International conference on forest fires and WUI fires. Aix-en-Provence, France, 2016.

Fire at the Wildland Urban Interface in Southern California. Invited speaker at Association of Environmental Professionals Conference. San Diego, CA, 2016.

The role of microenvironments, competition, and disturbance in mediating species' response to climate change. International Association for Landscape Ecology World Congress. Portland, OR. 2015.

Trends in chaparral landscape conversion. Invited speaker at the 2nd Southern California Chaparral Symposium, USFS. Arcadia, CA. 2015.

Fire in Southern California: Balancing fire ecology & management. Invited speaker at the California State Parks Annual Meeting. Marshall, CA. 2015.

Plant species persistence under climate change in the context of multiple threats. California Native Plant Society. San Jose, CA. 2015.

Fire at the wildland-urban interface: Lessons from southern California. MEDECOS Conference XII. Olmue, Chile. 2014.

Webinar: A tale of two fires: fire ecology and management with an eye to the future in S. California. 2013.

The Wildland Urban Interface and fire in southern California USA. 5th annual FUME meeting, Toledo, Spain. 2013.

The role of fire and fuels management in chaparral restoration. Invited lecture at USFS chaparral restoration workshop. Pasadena, CA. 2013.

Balancing fire ecology and management. Invited lecture to Sierra Club Santa Margarita. 2013.

From intervention to prevention: How can fire distribution models inform management and conservation? Fire and strategic plan workshop, San Diego County, CA, 2013.

Land use planning to reduce housing loss to wildfire in southern California. Association for Fire Ecology, Portland OR, 2012.

Analysis of geographic influence on reducing wildfire risks and ecological impacts. San Diego partners for Biodiversity meeting, San Diego, CA, 2011.

Land use planning to reduce wildfire risk in southern California. MEDECOS Conference XII. Los Angeles, CA. 2011.

A modeling framework for assessing adaptation strategies for plants threatened by climate, land use, and altered fire regimes in Mediterranean-type ecosystems. 7th European Conference on Ecological Modelling – Riva del Garda, Italy. 2011.

Evaluating the relative impact of climate change and other threats to the persistence of rare plant species in southern California. Invited lecture, U.S. Fish and Wildlife Service, U.S. Geological Survey and California Department of Fish & Game, Bridging the Gap climate change communications workshop, Sacramento, CA. 2010.

Does translocation of a rare fire-dependent plant mitigate the effects of climate change? Invited lecture, Tecate cypress symposium, Rancho Jamul Ecological Preserve, CA. 2010.

Humans alter the spatial pattern of fire in Mediterranean ecosystems. Invited lecture, Department of Geography, San Diego State University

The role of pre-fire fuel management on reducing impacts of large fires in the Los Padres National Forest, California. 4th International Fire Congress – Savannah, GA. 2009.

Modeling interactions among humans, fire, and vegetation in California. Invited lecture, Department of Biology, San Diego State University. 2008.

Humans alter the spatial pattern of fire in Mediterranean ecosystems. Pacific Coast Fire Conference: Changing Fire Regimes, Goals and Ecosystems. California Association of Fire Ecology – San Diego, CA. 2008.

Southern Sierra Nevada Fisher Baseline Assessment and Prediction of Future Habitat Conditions Under Changing Fire Regimes. Association for Fire Ecology Regional Conference 2008 – Tucson, AZ. 2008.

Interactions among humans, fire, and vegetation on southern California landscapes. Invited lecture, Department of Botany, University of California, Riverside. 2007.

Modeling and mapping human influence on California fire regimes. Invited lecture, University of Wisconsin-Madison, Chaos and Complex Systems Seminar. 2007.

Using global satellite data to predict human influence on fire in Mediterranean ecosystems. 4th International Wildland Fire Conference – Seville, Spain. 2007.

Humans and fire in California: predicting influences and simulating impacts. Invited lecture, Department of Geology & Geography, University of West Virginia. 2006.

Predicting spatial patterns of fire in a southern California landscape. Third International Fire Ecology & Management Congress – San Diego, CA. 2006.

Effects of human activities on California fire regimes. International Association for Landscape Ecology Annual Meeting – San Diego, CA. 2006.

Simulating the combined effects of urban growth and high fire frequency on native shrublands in southern California. Association of American Geographers Annual Meeting – Chicago, IL. 2006.

Simulating the effects of frequent fire on the distribution of dominant plant functional types in southern California shrublands. Society for Conservation Biology Annual Meeting – Brasilia, Brazil. 2005.

Simulating alternate scenarios of habitat fragmentation in California native shrublands using a cellular automaton urban growth model. Ecological Society of America Annual meeting - Portland OR. 2004.

Modeling alternate scenarios of urban growth on habitat fragmentation in southern California. The 19th Annual Symposium International Association Landscape Ecology- Las Vegas, NV. 2004.

Modeling long-term effects of altered fire regimes and urbanization on vegetation succession. International Association for Landscape Ecology World Congress - Darwin, Australia. 2003.

Simulation modeling of the long-term effects of altered fire regimes on vegetation succession in the Peninsular Ranges of San Diego County. Fire Conference: Managing Fire and Fuels in the Remaining Wildlands and Open Spaces of the Southwestern United States - San Diego, CA. 2003.

AWARDS

2002-2005. NASA Earth System Science Fellowship

2002. "Ecosystem Management in Cultural Landscapes" training in Europe, funded by FIPSE.

2002. McFarland Scholarship, San Diego State University

SELECT PROFESSIONAL ACTIVITIES

Outreach

- External PhD and masters student committees: Oregon State University Environmental Sciences Program; Prescott, AZ masters program; external expert to SESYNC collaborative graduate student project, "Understanding shifting human-fire dynamics in the San Diego-Cleveland National Forest wildland-urban interface"; Western Sydney University Doctoral Program Engineering Dissertation Reviewer
- Peer and scientific review: Associate editor of Diversity & Distributions; Peer review for more than 30 scientific journals; scientific reviewer for Cal Fire Vegetation Treatment Program EIR; Guest Editor ESA Ecological Applications; review panel of vegetation models for LANDFIRE project; Maryland Sea Grant; National Science Foundation proposal review.
- Teaching: Population biology in Spanish at ECOSUR, Chiapas MX; GEOG 570 Environmental Conservation Practice; GEOG GIS labs
- Working groups, membership, and invited meetings: Linked socio-environmental responses to destructive wildfire: Are fires 'hot moments' for

transformative adaptation? National Socio-Environmental Synthesis Center (SESYNC); NCEAS working group, Global climate change and adaptation of conservation priorities; Vegetation/Fuels Fire Committee for the San Diego County Forest Area Safety Taskforce (FAST); Ecosystems and Wildfires working groups for San Diego County Focus 2050 project; EU FUME project, Forest fire under climate, social and economic changes; Stakeholder Committee for Southern California Climate Adaptation Project, EcoAdapt; Organizing committee for California chaparral restoration workshop; Fire and Biodiversity Modeling Working Group, Solsona Spain; National Adademy of Sciences Wildfire Workshop, UNDEP Committee Spatial Data for Biodiversity, Washington DC

- Knowledge transfer: Webinar: A tale of two fires: fire ecology and management with an eye to the future in S. California; Blog: Conservation and housing loss to wildfire. Invited Panelist, community planning workshop for Cal Fire's Forest and Range Assessment; Media outreach
- Policy advisor: Panelist at Cal Fire meeting on land use planning; speaker at CA governor's office; Invited panelist, fire science press briefs, House of Representatives and Senate, Washington, D.C., 2017, Invited scientist for meetings with congressional staff, Washington, D.C., 2017

MEDIA

- 2017, Science Friday, Humans Outweigh Climate's Influence on Fire. PRI. https://www.sciencefriday.com/person/alexandra-syphard/
- 2017, The Atlantic, "Did Climate Change Worsen the Southern California Fires?" https://www.theatlantic.com/science/archive/2017/12/what-climate-change-did-and-didnt-have-to-do-with-the-socal-fires/547712/
- 2017, The Los Angeles Times, "After California's most destructive fire season, a debate over where to Rebuild" http://www.latimes.com/local/lanow/la-me-ln-rebuilding-in-hazard-zones-20171216-story.html
- 2017, The Los Angeles Times, " A simple but seldom used tactic to prevent wildfires: Turn off the power grid when the winds pick up" http://www.latimes.com/local/lanow/la-me-wildfire-wind-20171124-story.html
- 2017, Wired. "The West is on Fire. Blame the Housing Crisis. https://www.wired.com/story/wildfire-housing-crisis/
- 2017, "Urban damage raises questions about California's wildfire strategy," Wall Street Journal

- 2017, “The west is on fire. Blame the housing crisis,” Wired
- 2016, “Fireproofing homes in fire-prone areas,” National Public Radio Southern CA
- 2015, “Developers want to build in high-risk wildfire areas,” Voice of San Diego
- 2014, “Overwhelming cause of California wildfires: humans,” National Geographic
- 2013, “Forests healing slowly from Cedar Fire," San Diego Union Tribune
- 2013, “How to Live with Wildfires in Southern California”, USGS Top Story
- 2013, “Living with Fire: The USGS Southern California Wildfire Risk Project” USGS YouTube Channel; several television broadcasts in San Diego and Los Angeles
- 2013, “Burning question: how will climate change impact western wildfires?” NBC News
- 2013, “Adapting to the new reality of increased wildfire danger,” KPBS national public radio. Radio and TV interviews.

Negar Vahidi

EXECUTIVE VICE PRESIDENT
PLANNING & PUBLIC POLICY DIRECTOR

Aspen environmental group

PROFILE: Ms. Vahidi specializes in the integration and completion of NEPA and CEQA documentation, land use and public policy analyses, and socioeconomics and environmental justice analyses. She has extensive experience managing and preparing a variety of federal, State, and local environmental, planning, and analytical documents for large-scale energy and water infrastructure, and development projects. She currently serves as Aspen's Planning and Public Policy Director focused on land use, socioeconomics, environmental justice, and public policy development and analysis.

EDUCATION:

- Master of Public Administration, University of Southern California, 1993
- BA (with Highest Honors), Political Science, University of California, Irvine, 1991

PROFESSIONAL EXPERIENCE

CONTRACT AND TASK ORDER MANAGEMENT

ENVIRONMENTAL ASSESSMENT AND AIR QUALITY SERVICES ON-CALL CONTRACT

Los Angeles Department of Water and Power, 2006-2009, 2014-2017, 2017-2022, and 2022-2027

Ms. Vahidi currently serves as the Program/Contract Manager for Aspen's master Environmental Services and Air Quality Services on-call contract with the LADWP (2022-2027, 26 Task Orders thus far), the largest municipal utility in the United States. As the Contract Manager, she is responsible for client interface and providing CEQA and NEPA expertise to the LADWP on day-to-day basis, QA/QC activities for all Aspen documents submitted, budget tracking and allocation, staff and task order assignments, and the general day-to-day management of this contract. Aspen is currently working on 60 Task Orders, including special studies, biological and cultural monitoring, and CEQA and NEPA environmental clearance documents. She also served as contract manager for Aspen's on-call from 2017 to 2022 (61 Task Orders) and 2014 to 2017 (19 Task Orders). In addition to her duties as the contract manager, Ms. Vahidi has or is managing several Task Orders under this contract. Her projects include:

- **Barren Ridge Renewable Transmission Project Visual Compensation Assessment. ANF.** Task Order Manager.
- **Angeles National Forest Operations and Maintenance Plan. ANF. CEQA**/NEPA Senior Technical Expert, National Forest System lands technical expert.
- **DS 104 CEQA Documentation, Los Angeles, CA**. TO Manager for CEQA documentation of a distribution station in West Los Angeles.
- **EnvREV-GIS Standardization and Integration Support, Los Angeles, CA.** Task Order Manager. Aspen prepared the Geospatial Data Submission Requirements and Instructions Manual for LADWP vendors, including a detailed schema and data dictionary for geospatial data to help make all project and facilities data consistent.
- **CEQA Knowledge Transfer Training, Los Angeles, CA.** Task Order Manager. Aspen conducted two (2) 2-hour training modules to train LADWP Environmental Planning & Assessment Office staff on: 1) preparation of CEQA Initial Study Environmental Checklist Form; and 2) Seen-Area and Visual Assessment per USFS requirements.
- **Scattergood Energy Storage EIR, Los Angeles, CA.** Task Order Manager.
- **Beacon Battery Energy Storage Project CEQA documentation, Antelope Valley, CA.** Task Order Manager. Aspen is preparing CEQA documentation.
- **Valley Generating Station Energy Storage Project CEQA documentation, Sylmar, CA.** Task Order Manager.
- **Elizabeth Tunnel Seismic Enhancement Project, ANF.**

- **On-Call Biological and Archaeological Environmental Services, Los Angeles County, CA**. Task Order Manager.
- **Temescal Ridge Pole Replacement Project, Los Angeles, CA.** Task Manager for Alternatives Report per California Coastal Commission requirements.
- **Barren-Haskell Line 1 CEQA/NEPA Planning, Antelope Valley, CA.** Ms. Vahidi has been providing planning support for CEQA, NEPA, and coordination with the federal land management agencies affected by the project, including the Angeles National Forest and the Bureau of Land Management (BLM). Thus far, Aspen has prepared a CEQA EIR addendum, a NEPA Supplemental Information Report; and provided input to the BLM Plan of Development. In addition, Aspen has been conducting resource surveys to support permitting (1602, 2081, 401, 104, etc.) and CEQA/NEPA compliance updates; and is involved in weekly coordination meetings in the field and via phone with the affected agencies.
- **Redmont Pump Station & Tank Project, Tujunga, CA.** Task Order (TO) Manger for the four technical studies and Focused EIR for the replacement of the Redmont facility (i.e., new pump station and new steel tank) to provide a reliable water source to the Sunland-Tujunga community of the City of Los Angeles. Aspen prepared a biological resources technical report, a tree survey report, a traffic study, an air quality technical report, and a noise technical report. The final Focused EIR for the project was published in December 2016.
- **Mulholland Pumping Station and Lower Hollywood Reservoir Outlet Chlorination Station Project, Los Angeles, CA.** TO Manager for preparation of CEQA documentation proposed to replace the existing historic pumping/chlorination station building as well as the existing lavatory and unoccupied Water Quality Laboratory buildings with a new single structure pumping/chlorination station within the LADWP's Hollywood Reservoir Complex located in the Hollywood Hills section of the City Los Angeles. These improvements were required due to the age and deterioration of the facility and the potential risk of seismic damage to existing structures. An Initial Study was prepared in support of a City of Los Angeles General Exemption.
- **River Supply Conduit (RSC) Upper Reach Project EIR, Los Angeles and Burbank, CA.** Task Leader for land use issues, and the development and analysis of project alternatives for the EIR. The RSC is a major transmission pipeline in the LADWP water distribution system. The existing RSC pipeline's purpose is to transport large amounts of water from the Los Angeles Reservoir Complex and local ground water wells to reservoirs and distribution facilities located in the central areas within of the City of Los Angeles. The LADWP proposed a new larger RSC pipeline to replace and realign the Upper and Lower Reaches of the existing RSC pipeline, which would involve the construction of approximately 69,600 linear feet (about 13.2 miles) of 42-, 48-, 60-, 66-, 72-, 84-, and 96-inch diameter welded steel underground pipeline.
- **Taylor Yard Water Recycling Project (TYWRP), Los Angeles and Glendale, CA.** TO Manager for IS/MND. LADWP proposed to construct the TYWRP in order to provide recycled water produced by the Los Angeles–Glendale Water Reclamation Plant (LAGWRP) to the Taylor Yard. An important part of the City of Los Angeles' expanding emphasis on water conservation is the concept that water is a resource that can be used more than once. Because all uses of water do not require the same quality of supply, the City has been developing programs to use recycled water for suitable landscaping and industrial uses. The project is located in the southernmost part of the City of Glendale and northeastern part of the City of Los Angeles. The IS/MND was adopted in the summer of 2007.
- **Valley Generating Station Site Survey & Documentation Report, Los Angeles, CA.** TO Manager for the preparation of a comprehensive report (over 150 pages) documenting all the structures and facilities located at the Valley Generating Station (VGS). The report included exhibits that illustrate locations of each structure at the VGS, a detailed appendix of color photos of each structure, and a written description of each structure. The report also provided a general discussion of the history and background of the VGS and its development to provide a context for the structures on site.
- **Pine Tree Wind Project, Kern County, CA.** TO Manger for the preparation of a detailed comparison matrix of the changes to the EIR/EA (LADWP/BLM) project description and environmental impacts of the originally proposed project and the revised proposed project for the 120 MW Pine Tree Wind Power Project, the largest municipally-owned wind farm in the U.S. Additionally, the emissions presented in the original EIR/EA were provided for comparison. Upon completion of the proposed project's emission estimates using information

from the second proposed design, the results of the analysis were incorporated into the Air Quality Technical Report.

ENVIRONMENTAL MASTER SERVICES AGREEMENT

Los Angeles Unified School District, 2002-2008

Between 2002 and 2008, Ms. Vahidi served as the Program/Contract Manager for Aspen's Environmental Master Services Agreement with the LAUSD (nation's second largest school district) to prepare CEQA documents (EIRs, IS/MNDs, Categorical Exemptions) in review of the LAUSD's four-phased new school construction program intended to meet existing and projected overcrowded conditions (200,000 seat shortfall) within the LAUSD (i.e., City of Los Angeles and all or parts of 28 surrounding jurisdictions covering 700 square miles of land). As the Program Manager, she was responsible for client interface and providing CEQA expertise to the LAUSD on day-to-day basis, QA/QC activities for all Aspen documents submitted, budget tracking and allocation, staff assignments, and the general day-to-day management of this contract. Aspen was awarded 54 work authorizations, of which 48 were CEQA document assignments for new school projects, school expansions and additions. In addition to her duties as the contract manager, Ms. Vahidi managed the preparation of several CEQA documents under this contract, including:

- East Valley Middle School No. 2, Los Angeles, CA. This middle school was proposed to be located at the previous Van Nuys Drive In site. The EIR focused on impacts associated with air quality, hazards and hazardous materials, noise, land use and planning, and traffic and transportation. Major issues of concern included traffic and noise generated by school operation activities. The EIR included LAUSD design standards and measures employed to minimize environmental impacts.
- Canoga Park New Elementary School IS/MND, Los Angeles, CA. This elementary school would be developed on a parcel of land owned by the non-profit organization, New Economics For Women (NEW). This "Turn-Key" project consisted of a Charter Elementary School to be developed by NEW and sold to the LAUSD for operation. It was later decided that NEW would lease the school back and run it as a charter school. Issues of concern included, pedestrian safety, traffic, air quality, noise, and land use.
- Mt. Washington Elementary School Multi-Purpose Room Addition Project IS/MND, Los Angeles, CA. This project proposed the development of a multi-purpose room facility, including a library, auditorium, and theater, to the existing Mt. Washington Elementary School campus located in Los Angeles. The surrounding residential community had concerns regarding the proposed project's impacts on aesthetics, traffic, air quality, and noise. Of particular concern, were impacts generated due to the after-hours use of the multi-purpose room facility by civic and community groups.
- New School Construction Program EIR. Serves as a Study Area Manager (Valley Districts), and Issue Area Coordinator (IAC) (i.e., technical lead and reviewer) for social science issues, including land use, socioeconomics, public services, population and housing, and utilities and service systems. As the IAC, she has formulated the scope of work and methodology for analysis of issues and mitigation options. In addition to her managerial duties, Ms. Vahidi is preparing the Land Use section of the EIR, and directing the preparation of the Project's Scoping Report.
- Belmont Senior High School 20-Classroom Modular Building Addition Project, Los Angeles, CA. Served as the project manager for CEQA documentation and permitting efforts related to the addition of modular classrooms to the existing Belmont Senior High School campus. Issues of concern included, potential impacts to sensitive receptors adjacent to the school from construction-related air quality, noise, and traffic, and operation-related noise generated by the new classrooms. As the LAUSD's CEQA consultant, Ms. Vahidi directed the preparation of technical documentation in support of a Class 32 In-Fill CEQA Categorical Exemption. This technical documentation included analyses of potential project-related air quality, noise, and traffic impacts, which were then submitted to LAUSD as one packet. Subsequent to preparation of this packet, LAUSD filed a CEQA Notice of Exemption for the classroom addition project.
- Narbonne High School Stadium Lighting Project MND Addendum, Los Angeles, CA. Served as the project manager for this project proposed to add a new stadium, lighting, and associated sport facilities needed to

address existing needs at Narbonne High School. Issues of concern include lighting impacts to the surrounding neighborhood, and available parking stock.

RENEWABLE ENERGY PLANNING PROJECTS

AB 525 STRATEGIC PLAN: PHASE 1 AND 2 ALTERNATIVE PORT ASSESSMENT REPORTS TO SUPPORT OFFSHORE WIND PROJECT

California State Lands Commission, July 2022-present

To comply with AB 525 (i.e., requires agencies to develop strategic plan for offshore wind development in federal waters), California State Lands Commission is conducting an analysis of the feasibility of, and potential locations for, port(s) to support offshore wind activities along the central to southern coast of California for the Morro Bay Wind Energy Area. With respect to port infrastructure and capacity, CSLC released a study that examined the feasibility of constructing a new purpose-built port on the central California coast to support offshore wind facility staging and integration or operations and maintenance. This high-level desktop screening study examined coastal sites between San Francisco and Long Beach to identify potential underused or undeveloped sites of 30 to 100 acres. A variety of land use, engineering, and environmental "screening criteria" were used to narrow the field of suitable sites. Aspen's role in this analysis was to assess the land use impacts associated with 12 sites, and to rank these sites by the relative severity of the impacts. Ms. Vahidi served as senior Land Use Planning and Permitting Technical Expert focused on visual, land use, and environmental justice impact analysis as a subcontractor (to Moffatt & Nichol), evaluating port facility options to support offshore wind development in Morro Bay Wind Energy Area (Phase 1) and along the entire CA coast (Phase 2).

DESERT RENEWABLE ENERGY CONSERVATION PLAN (DRECP) IMPLEMENTATION SUPPORT

U.S. Bureau of Land Management, California Desert District, 2015-present

As part of DRECP implementation, Aspen has been providing support to BLM update and consolidate its plan documents and prepare implementation materials. As part of this effort, Ms. Vahidi has been updating various elements of the California Desert Conservation Area (CDCA) Plan and assisting with incorporation of the BLM's applicable DRECP land use plan amendments (LUPA), including a comprehensive update of the CDCA Land Tenure Element, and incorporation of LUPA components into the various Resource Management Plans (e.g., WEMO, NEMO, NECO, etc.).

DESERT RENEWABLE ENERGY CONSERVATION PLAN AND EIS/EIR

California Energy Commission and Bureau of Land Management, 2009-2016

Senior Technical Specialist for BLM Lands and Realty, Environmental Justice, and Socioeconomics for Desert Renewable Energy Conservation Plan (DRECP) and its Environmental Impact Report/Environmental Impact Statement (EIR/EIS). She's also served as: the land use technical specialist for the land valuation team of the DRECP: the task Leader for the EIS/EIR analysis of transmission corridor route alternatives; and serves on the BLM "Red Team" for EIR/EIS technical review.

SAN LUIS OBISPO COUNTY RENEWABLE ENERGY STREAMLINING PROGRAM AND EIR

San Luis Obispo County, 2013-2015

Project Manager for Aspen (under contract to PMC). Aspen worked collaboratively with PMC and the County by preparing an Opportunities and Constraints Technical Study (OCTS) to determine Renewable Energy Development Areas (REDAs) suitable for siting of small-scale renewable energy (RE) (less than 20 MWs) in the County. The OCTS analysis and detailed mapping effort helped the County in developing its renewable energy policy updates for its Conservation and Open Space Element, its RE Combining Designation for its Land Use Code, and development and adoption of its RE Ordinance. Aspen developed the Combining Designation maps and parameters for the County Code and provided associated performance standards for the siting of renewable energy to be included in the County's Code update. In addition, Aspen assisted the County with developing a permitting streamlining program to help expedite siting of small-scale renewable energy in the County. Aspen's

OCTS helped identify the potential effects of the streamlining program on environmental and socioeconomic resources in the County, which then assisted in determining the best areas for RE siting to help streamline permitting of projects. The County's process has been funded by the CEC Renewable Energy Planning and Conservation Grant Program (RECPG), which is intended to help local agencies plan for renewable energy in addition to the CEC and BLM's Desert Renewable Energy Conservation Plan (DRECP) efforts. SLO County was one of five counties awarded a grant. Aspen also prepared large portions of the County's Programmatic EIR for CEQA clearance of the COSE and its code updates, including the Agricultural, Biological, Cultural, and Visual Resources sections, and the water resources, geology/soils, and hazards sections. Ms. Vahidi also assisted PMC and the County in developing the EIR project description based on the details in Aspen's OCTS.

INYO COUNTY RENEWABLE ENERGY GENERAL PLAN AMENDMENT AND PROGRAM EIR

Inyo County, 2013-2015

Senior Technical Adviser and Senior Socioeconomics Technical Expert for Aspen's contract with Helix. Aspen worked collaboratively with the County by preparing an OCTS to determine Solar Energy Development Areas (SEDAs) suitable for siting of solar facilities and associated transmission in the County. The OCTS provided the opportunities and constraints used in developing its renewable energy policy updates for the County's Renewable Energy General Plan Amendment (REGPA). This process has been funded by the CEC Renewable Energy Planning and Conservation Grant Program (RECPG), which is intended to help local agencies plan for renewable energy in addition to the CEC and BLM's Desert Renewable Energy Conservation Plan (DRECP) efforts. Inyo County was one of five counties awarded a grant. In addition, Ms. Vahidi authored the socioeconomics write-up for the REGPA and EIR, which provides information on the County's population, transient housing, local economy, public finance, and federal, State, and local economic regulatory factors and policy incentives. Both a socioeconomic and economic analysis was conducted analyzing renewable energy development effects on Inyo County's population, public services, and economy, including the potential for social disruptions. To help offset any potential negative effects of renewable energy development, supplemental and new policy directives were developed, which the County has incorporated into its REGPA. The Draft REGPA and Programmatic EIR were published in November 2014, and the Final REGPA was published in March 2015.

SAN BERNARDINO COUNTY GENERAL PLAN RENEWABLE ENERGY ELEMENT AND COST-BENEFIT ANALYSIS (SPARC PHASE 1 AND PHASE 2)

San Bernardino County, 2013-2016

Ms. Vahidi served as Aspen's project manager supporting the County on two major phases of planning for renewable energy. San Bernardino County Land Use Services Department used its CEC RECPG funds to prepare a Renewable Energy and Conservation (REC) Element for its General Plan. During Phase 1, Aspen prepared renewable energy case studies, participated in stakeholder outreach, and helped the County start on the development of its REC Element, by identifying Renewable Energy Development Areas (REDAs) suitable for siting of renewable energy by using GIS and screening criteria developed as part of Aspen's OCTS approach used for other County renewable energy planning efforts. Aspen developed a workflow and descriptions of screening criteria and preliminary maps of REDAs. Under Ms. Vahidi's direction, Aspen prepared case studies of renewable energy (RE) projects that provided examples of challenges and successes, including economic benefits, for renewable energy resource development; worked with the County and CEC to determine data sources and GIS mapping parameters to prepare RE resources maps to assist in the development of the REC Element; participated in stakeholder and public workshops by presenting RE technology details, best case studies, and areas suitable for RE siting; and Prepared the Renewable Energy Mapping Project (REMP) Technical Report for the County in support of the REC Element. The REMP Technical Report includes opportunities and constraints related to RE siting on County lands by providing a step-by-step workflow, accompanying maps, and text narrative that describes areas suitable for RE siting. During Phase 2, Aspen led the effort by conducting a cost-benefit analysis of developing community-oriented renewable energy in the County. Efforts included stakeholder interviews and focus group meetings, and community outreach workshops focused on identifying the social, environmental, and economic costs and benefits of RE development along with identifying tools for implementation of

community-oriented RE, including organizations of various types (CCAs, microgrids, co-ops, etc.). This process was funded by the CEC RECPG Program under two rounds of funding intended to help local agencies plan for renewable energy in addition to the CEC and BLM's DRECP efforts. San Bernardino County is one of five counties awarded grant funds.

IMPERIAL COUNTY GENERAL PLAN OPEN SPACE AND CONSERVATION ELEMENT

Imperial County, 2014-2016

The County is one of the five recipients of the CEC RECPG Program to update its 1993 Conservation and Open Space Element (COSE) of the Imperial County General Plan. Aspen prepared the Baseline Conditions Report for the County's COSE Update. This effort was required to ensure that the General Plan can meet the needs for future development while remaining consistent with identified land use and environmental goals. Much of the information used in this report was presented in the Geothermal/Alternative Energy and Transmission Element Update Baseline Environmental Inventory Report prepared by Chambers Group, Inc. As part of the Baseline Conditions Report, Aspen used GIS and screening criteria developed as part of our OCTSs for other County renewable energy planning efforts. Ms. Vahidi served as Aspen's Project Manager/Senior Technical Advisor on this effort.

POWER GENERATION PROJECTS

PIER WIND TERMINAL DEVELOPMENT PROJECT

Port of Long Beach and U.S. Army Corps of Engineers, 2023-present

The Pier Wind Terminal Development Project has been proposed to support the State of California's goals for Offshore Wind production that were established in AB 525. The project involves the construction and development of a 400-acre terminal and transportation corridor at the Port of Long Beach for staging and integration (i.e., receiving, staging, storing and assembly) and floating foundation assembly of floating offshore wind turbine systems. The project is subject to both NEPA and CEQA regulatory review and compliance. Ms. Vahidi is the Senior Technical lead guiding the joint EIR/EIS technical analyses for Land Use (including Recreation and Coastal Access), and Socioeconomics and Environmental Justice which will be supported by a Social and Economic Effects Technical Study. Ms. Vahidi is leading up the preparation of the Social and Economic Effects Technical Study and developed the approach to analysis and determined the demographic tools being used to analyze disproportionate effects on disadvantaged communities.

CADEMO OFFSHORE WIND DEMONSTRATION PROJECT

California State Lands Commission and U.S. Department of Defense, 2023-present

The CADEMO Offshore Wind Demonstration Project has been proposed to support the State of California's goals for Offshore Wind production that were established in AB 525. CADEMO proposes to install and operate four floating offshore wind turbines along the coast of western Santa Barbara County at Vandenberg Space Force Base (VSFB). Each turbine would be capable of producing 12 to 15 MW renewable electricity. The project would include a new onshore electrical substation within VSFB that would connect to the offshore wind turbines via a subsea static cable. The project is subject to both NEPA and CEQA regulatory review and compliance. Ms. Vahidi is the Senior Technical Lead guiding the preparation of the joint EIR/EIS technical analyses for Land Use (including Recreation and Coastal Access) and Environmental Justice.

DIABLO CANYON POWER PLANT DECOMMISSIONING PROJECT EIR

San Luis Obispo County, 2021-present

Aspen is currently preparing an EIR to evaluate impacts from the decommissioning of Diablo Canyon Power Plant. The EIR analysis will include three phases of decommissioning, with site decommissioning (Phase 1) and final site restoration (Phase 2) being analyzed at a project-level, and future site reuse (Phase 3) being analyzed at a program-level. Ms. Vahidi serves as technical senior in charge of developing the approach and analyses for the Future Site Reuse, Land Use, and Aesthetics. She's also the author of the environmental justice analysis.

CALIFORNIA ENERGY COMMISSION CONTRACTS

Since 2001, and in response to California's power shortage and renewable energy needs, Aspen has assisted the California Energy Commission (CEC) in evaluating the environmental and engineering aspects of new power plant applications throughout the State under five separate contracts. Since 2001, Ms. Vahidi has served as expert witness and Technical Senior for land use, socioeconomics and environmental justice, and alternatives analyses and special studies. Her specific projects are listed below.

TECHNICAL ASSISTANCE IN APPLICATION FOR CERTIFICATION REVIEW

California Energy Commission, Contract # 700-99-014; 3/6/2000 through 12/31/2003

- **Woodland Generation Station No. 2, Modesto, CA.** As the land use Technical Specialist, prepared the Land Use and Recreation, and Agricultural Resources Staff Assessments of this 80-MW nominal, natural gas-fired power generating facility and associated linear facilities (i.e., gas and water pipeline and transmission line. The Staff Assessment evaluated potential impacts on nearby residential, recreational, and agricultural land uses, including important farmlands being traversed by linear faculties.
- **Valero Cogeneration Project, Benicia, CA.** Prepared the Socioeconomics Staff Assessment for a proposed cogeneration facility at the Valero Refinery in Benicia. Issues addressed included impacts on public services and other project-related population impacts such as school impact fees.
- **Rio Linda/Elverta Power Project, Sacramento, CA.** Prepared the Socioeconomics Staff Assessment for a 560-MW natural gas power plant in the northern Sacramento County. Issues of importance included environmental justice and impacts on property values.
- **Magnolia Power Project, Burbank, CA.** As the Socioeconomics technical specialist, prepared the Staff Assessment for this nominal 250-MW natural gas combined-cycle fired electrical generating facility to be located at the site of the existing City of Burbank power plant. Environmental justice issues and potential impacts on local economy and employment were evaluated
- **Potrero Power Plant Project, San Francisco, CA.** Prepared the land use portion of the Alternatives Staff Assessment for this proposed nominal 540-MW natural gas–fired, combined-cycle power generating facility. Analysis included review of several alternative sites for development of the power plant and the comparative merits of those alternatives with the proposed site located on the San Francisco Bay.
- **Los Esteros Critical Energy Facility, San Jose, CA.** Senior Technical Specialist and expert witness for the Land Use Staff Assessment of this 180-MW natural gas-fired simple cycle peaking facility. Issues included potential impacts resulting from loss of agricultural land, and impacts associated with the project's non-compliance with local General Plan land use and zoning designations.
- **East Altamont Energy Center, Alameda County, CA.** Senior Technical Specialist for the Land Use Assessment for a 1,100-MW nominal, natural gas-fired power plant and associated linear facilities. Provided expert witness testimony on Land Use Staff Assessment. Major issues addressed in the Staff Assessment included loss of Prime Farmlands, recommendation of land preservation mitigation, and the project's non-compliance with local General Plan land use and zoning designations.
- **Tracy Peaker Project, Tracy, CA.** Senior Technical Specialist for the Land Use Staff Assessment of this 169-MW simple-cycle peaking facility in an unincorporated area of San Joaquin County. Provided expert witness testimony on Land Use Staff Assessment. Issues included potential impacts resulting from loss of agricultural land under Williamson Act Contract, and evaluation of cumulative development in the fast-growing surrounding area. The agriculture Condition of Certification from the Land Use Staff Assessment resulted in an Agricultural Mitigation Plan currently being implemented and amended for continued implementation for the Tracy Combined-cycle Power Plant (see below).
- **Avenal Energy Project, Kings County, CA.** Socioeconomics Technical Specialist for this 600 MW combined-cycle electrical generating facility and associated linear facilities.
- **Tesla Power Project, Alameda County, CA.** Land Use Technical Senior and Alternatives Technical Specialist in charge of preparation of two Staff Assessments for this nominal 1,120-MW electrical generating power plant with commercial operation planned for third quarter of 2004. The Tesla Power Project would consist of a

natural gas-fired combined-cycle power generator, with 0.8 miles of double-circuit 230-kV transmission line connected to the Tesla PG&E substation, 24-inch 2.8-mile natural gas pipeline, and 1.7-mile water line constructed along Midway Road.

- **Sacramento Municipal Utility District Consumes Power Plant Project, Sacramento, CA.** Socioeconomics and Alternatives Technical Specialist in charge of preparation of two Staff Assessments for this nominal 1,000-MW combined-cycle natural gas facility. Provided expert witness testimony on Socioeconomics Staff Assessment. The project would include the construction and operation of a natural gas power plant at the Rancho Seco Nuclear Plant, 25 miles southeast of the City of Sacramento, in Sacramento County. The project would be located on a 30-acre portion of an overall 2,480-acre site owned by SMUD.
- **Inland Empire Energy Center, Riverside County, CA.** Senior Technical Specialist for the Land Use Assessment for a 670-MW natural gas-fired, combined-cycle electric generating facility and associated linear facilities including, a new 18-inch, 4.7-mile pipeline for the disposal of non-reclaimable wastewater, and a new 20-inch natural gas pipeline. Provided expert witness testimony on Land Use Staff Assessment. The project would be located on approximately 46 acres near Romoland, in Riverside County. Major issues addressed in the Staff Assessment included potential loss of agricultural lands, impacts to planned school uses, and the project's potential non-compliance with local General Plan land use and zoning designations.
- **Senior Technical Lead, Land Use Resources.** The CEC requested that the Aspen Team provide Technical Seniors for the Land Use Resources area to help coordinate and review Land Use Resource Assessments. As a Technical Senior, Negar Vahidi was responsible for the technical review of Land Use sections of Staff Assessments for various power plants.

  Legislative Bill Review. As a Land Use Technical Senior for the CEC, Ms. Vahidi conducted legislative bill review related to energy facilities siting. She conducted portions of the CEC Systems Assessment & Facilities Siting Division analysis of Senate Bill 1550 which was intended to give the Superintendent of Public Instruction/CDE approval authority over siting of power plants within one mile of existing or proposed K-12 school sites by requiring the CDE (in coordination with the State Architect, and the commission) to develop appropriate siting guidelines.

ENGINEERING & ENVIRONMENTAL TECHNICAL ASSISTANCE TO SUPPORT THE ENERGY FACILITY PLANNING AND LICENSING PROGRAM CONTRACT

California Energy Commission, Contract # 700-02-004; 6/30/03 through 3/30/06

- **Environmental Performance Report (EPR).** Ms. Vahidi managed the preparation of the Socio-economics chapter of the EPR for the California Energy Commission, which eventually became part of the State of California's Integrated Energy Policy Report (IEPR). The Socioeconomics chapter addressed: the importance of reliable and affordable electricity supply power plant construction and operation impacts, including labor force, taxation, etc.; and trends in the energy section, including renewable power sources such as wind and solar. She also conducted the analysis of a new portion of the Land Resources Chapter, which addressed the siting and land use issues associated with renewable power. This new portion of the land use analysis compared the land use and siting constraints associated with renewable power infrastructure such as wind and solar versus other forms of power infrastructure, such as gas pipelines, transmission lines, LNG facilities, and power plants.
- **Coastal Plant Study.** Ms. Vahidi served as the Social Sciences Task Manager for this special study being conducted as part of Aspen's contract with the California Energy Commission. The study included identification and evaluation of potential issues associated with the possible modernization, re-tooling, or expansion of California's 25 coastal power plants including: northern California power plants such as Humboldt, Potrero, Hunter's Point, Pittsburg, and Oakland; central coast power plants such as Contra Costa, Diablo Canyon Nuclear, Morro Bay, Moss Landing, Elwood, Mandalay, and Ormond Power Plants; and southern California power plants such as the Alamitos, Long Beach, Los Angeles Harbor, Haynes, Redondo Beach, Scattergood, El Segundo, Huntington Beach, Encina, Silver Gate, South Bay, and San Onofre Nuclear. As Task Manager her responsibilities included, identification of potential political, social, community, and physical land use impacts that may arise from the potential increased output of energy from plants in highly sensitive coastal

communities. The intent of the study is to identify red flag items for the Energy Commission to streamline future licensing processes. Her task as the Social Science Task Manager also included a thorough review of applicable Local Coastal Plans, and Coastal Commission regulations associated with Coastal Development Permits and Consistency Determinations.

Natural Gas Market Outlook Report (NGMOR). Ms. Vahidi assisted the CEC's Natural Gas Unit as a technical editor in their preparation and publication of the NGMOR. She managed Aspen's efforts, including format and graphics, to edit technical sections prepared by Natural Gas Unit Staff under a condensed time frame. The Preliminary NGMOR was released for public review in June 2003.

SITING, TRANSMISSION, AND ENVIRONMENTAL PROTECTION PEAK WORKLOAD (STEP)

California Energy Commission, Contract #700-05-002; and 4/11/06 through 6/30/09; and Contract #700-08-001; 6/30/09 through 5/31/10

- **Chula Vista Energy Upgrade Project, Chula Vista, CA.** Senior Technical Specialist for the Land Use Staff Assessment for MMC Energy, Inc.'s Application for Certification (AFC) to construct and operate replacements and upgrades of equipment at the Chula Vista Power Plant, located on a 3.8-acre parcel in the City of Chula Vista's Main Street Industrial Corridor and within the City's Light Industrial zoning district. Issues of concern include the impacts of the power plant on adjacent residential and open space land uses, and compliance with applicable local LORS, including recently adopted city environmental justice policies. Provided expert witness testimony on Land Use Staff Assessment.
- **Ivanpah Solar Electric Generating System Project, San Bernardino County, CA.** Senior Technical Specialist for the Socioeconomics Staff Assessment/BLM EIS for a 400-MW solar thermal electric power generating system. The project's technology would include heliostat mirror fields focusing solar energy on power tower receivers producing steam for running turbine generators. Related facilities would include administrative buildings, transmission lines, a substation, gas lines, water lines, steam lines, and well water pumps. The proposed project would be developed entirely in the Mojave Desert region of San Bernardino County. The document was prepared in compliance with both NEPA and CEQA requirements. Issues of concern included taxation, property values, environmental justice, local labor force concerns, project-related worker housing.
- **Sentinel Energy Project, Riverside County, CA.** Senior Technical Specialist for the Land Use Staff Assessment for CPV Sentinel's Application for Certification (AFC) to construct and operate an 850-MW peaking electrical generating facility near SCE's Devers Substation. The proposed project site consisted of 37 acres of land situated approximately eight miles northwest of the center of the City of Palm Springs with portions of the construction laydown area and natural gas pipeline within the Palm Springs city limits. Land use issues of concern included the project's compliance with local LORS, and parcel legality to comply with the Subdivision Map Act.
- **Carrizo Energy Solar Farm, San Luis Obispo County, CA.** Senior Technical Specialist for the Land Use Staff Assessment for Carrizo Energy, LLC's Application for Certification (AFC) to build the Carrizo Energy Solar Farm (CESF), which would consist of approximately 195 Compact Linear Fresnel Reflector (CLFR) solar concentrating lines, and associated steam drums, steam turbine generators (STGs), air-cooled condensers (ACCs), and infrastructure, producing up to a nominal 177 MW net. The CESF site was proposed to be in an unincorporated area of eastern San Luis Obispo County, west of Simmler and northwest of California Valley. The CESF included the solar farm site, a minimal offsite transmission system connection, and construction laydown area. The CESF site encompassed approximately 640 acres of fenced area in an area zoned for agricultural uses as specified in the San Luis Obispo County General Land Use Plan. Issues of concern included the impacts of the power plant on agricultural land conversion, compatibility with adjacent land uses, and compliance with applicable local LORS. The development of the agriculture mitigation to reduce impacts resulting from the loss of 645 acres of Important Farmlands required extensive coordination with the California Department of Conservation, San Luis Obispo County Agriculture Department, and the San Luis Obispo County Land Conservancy.
- **Carlsbad Energy Center Project, Carlsbad, CA.** Senior Technical Specialist and expert witness for the Land Use and Alternatives Staff Assessments for Carlsbad Energy Center, LLC's Application for Certification (AFC) to

build the Carlsbad Energy Center Project (CECP), which will consist of a 558-MW gross combined-cycle generating facility configured using two units with one natural gas-fired combustion turbine and one steam turbine per or unit. Issues of concern include major incompatibilities with local LORS, and cumulative impacts from widening of I-5. Ms. Vahidi conducted the California Coast Act Consistency Determination in lieu of the California Coastal Commission (CCC), because the CCC opted to have the CEC conduct the consistency analysis with the Coastal Act.

- **Marsh Landing Generating Station, Contra Costa County, CA.** Senior Technical Specialist for the Land Use Staff Assessment for the Mirant Marsh Landing, LLC AFC for a 930-MW natural gas-fired power plant, which would be would be sited adjacent to the existing Contra Costa Power Plant in unincorporated Contra Costa County, near the City of Antioch. Issues of concern included impacts to nearby agricultural resources, compatibility with adjacent land uses, compliance with local LORS, and parcel legality to comply with the Subdivision Map Act.
- **Canyon Power Plant, Anaheim, CA.** Senior Technical Specialist for the Socioeconomics Staff Assessments for a nominal 200-MW simple-cycle plant, using four natural gas-fired combustion turbines and associated infra-structure proposed by Southern California Public Power Authority (SCPPA). This project is a peaking power plant project located within the City of Anaheim. Issues of concern included impacts to local employment and housing.
- **Willow Pass Generating Station, Pittsburg, CA.** Senior Technical Specialist for the Land Use Staff Assessment for a new, approximately 550-MW dry-cooled, natural gas-fired electric power facility proposed by Mirant. Development of Willow Pass would entail the construction of two generating units and ancillary systems including, adjacent electric and gas transmission lines, and water and wastewater pipelines. Issues of concern include impacts to nearby agricultural resources, compatibility with adjacent land uses, compliance with local LORS, and parcel legality to comply with the Subdivision Map Act. This project is currently on hold.
- **Calico Solar One Project (a.k.a. Stirling Energy Systems Solar One), San Bernardino County, CA.** Senior Technical Specialist and expert witness for the Land Use Staff Assessment/BLM EIS for a nominal 850 MW Stirling engine project. The primary equipment for the generating facility would include the 34,000 25-kilowatt solar dish Stirling systems (referred to as SunCatchers), their associated equipment and systems, and their support infrastructure. Major issues of concern include the conversion of approximately 8,230 acres of open space to industrial uses, compliance with BLM's CDCA Plan, access to landlocked private parcels, compatibility with the on-site BNSF railroad right-of-way, and significant cumulative land use impacts resulting from the conversion of 1,000,000 acres of southern California desert lands. Currently, staff is working on analyzing two new reduced project alternatives, because of the significant impacts of the project as proposed.
- **Imperial Valley Solar Project (a.k.a. Stirling Energy Systems Solar Two), Imperial County, CA**. Senior Technical Specialist and expert witness for the Land Use Staff Assessment/BLM EIS for a nominal 750-MW Stirling engine project. The primary equipment for the generating facility would include the approximately 30,000 25-kilowatt solar dish Stirling systems (referred to as SunCatchers), their associated equipment and systems, and their support infrastructure. Major issues of concern include conversion of 6,500 acres of public recreation land used for OHV use and camping, compliance with the BLM's CDCA plan and local LORS, parcel legality issues in compliance with the Subdivision Map Act, and significant cumulative land use impacts resulting from the conversion of 1,000,000 acres of southern California desert lands. Ms. Vahidi coordinated extensively with Imperial County regarding the project's inconsistencies with local LORS.
- **GWF Tracy Combined-Cycle Power Plant, San Joaquin County, CA.** Senior Technical Specialist and expert witness for the Land Use Staff Assessment for GWF's proposal to modify the existing TPP (see description above), a nominal 169-MW simple-cycle power plant, by converting the facility into a combined-cycle power plant with a nominal 145 MW, net, of additional generating capacity. Major issues of concern included conversion of Important Farmlands, and the continued implementation of the Agricultural Mitigation Plan resulting from the agriculture Condition of Certification imposed on the Tracy Peaker Project.
- **City of Palmdale Hybrid Power Plant Project, Palmdale, CA.** Senior Technical Specialist for the Land Use Staff Assessment for the Palmdale Hybrid Power Project (PHPP) proposed by the City of Palmdale. Also, authored

the comprehensive land use analysis of two transmission line alternatives included as an appendix to the Staff Assessment. The PHPP consists of a hybrid of natural gas-fired combined-cycle generating equipment integrated with solar thermal gene-rating equipment to be developed on an approximately 377-acre site in the northern portions of the City of Palmdale (City). Major issues of concern include compatibility impacts of the pro-posed project's linear facilities on adjacent land uses, and the proposed Gen-Tie's LORS inconsistency impacts in both the City of Palmdale and Los Angeles County.

- **Lodi Energy Center, Lodi, CA.** Senior Technical Specialist for the Socioeconomics Staff Assessment for a combined-cycle nominal 225-MW power generating facility. Issues of concern included impacts to local workforce and employment, and taxation.
- **Abengoa Mojave Solar One Project, San Bernardino County, CA.** Senior Technical Specialist and expert witness for the Land Use Staff Assessment of a nominal 250-MW solar electric generating facility to be located near Harper Dry Lake in an unincorporated area of San Bernardino County. Issues of concern include the impacts associated with the conversion of 1,765 acres of Important Farmlands, and over 2,000 acres of open space lands. The analysis of agricultural land conversion impacts and associated mitigation required extensive coordination with the California Department of Conservation, San Bernardino County, and Transition Habitat Conservancy.
- **Genesis Solar Energy Project, Riverside County, CA.** Senior Technical Specialist for the Land Use Staff Assessment/BLM EIS for two independent solar electric generating facilities with a nominal net electrical output of 125 MW each, for a total net electrical output of 250 MW. Electrical power would be produced using steam turbine generators fed from solar steam generators. The project is located approximately 25 miles west of the city of Blythe. Major issues of concern include conversion of 4,460 acres of BLM lands to an industrial use, and significant cumulative land use impacts resulting from the conversion of 1,000,000 acres of southern California desert lands.
- **Oakley Generating Station, Contra Costa County, CA.** Senior Technical Specialist for the Land Use Staff Assessment for a natural gas-fired, combined-cycle electrical generating facility rated at a nominal generating capacity of 624 MW. The project would be located in the City of Oakley. Issues of concern include compatibility with adjacent land uses, and compliance with City of Oakley LORS.

SITING, TRANSMISSION, AND ENVIRONMENTAL PROTECTION (STEP) PEAK WORKLOAD

California Energy Commission, Contract # 700-11-027; 6/30/12 through 5/31/15

- **Alamitos Generating Station, Long Beach, CA.** Senior Technical Specialist and expert witness for the Land Use Staff Assessment for AES Southland Development, LLC (AES-SD) Application for Certification (AFC) to modernize the existing Alamitos Generating Station (AGS). The Alamitos Energy Center (AEC) would be located on approximately 21 acres of the 71-acre brownfield AGS site. Conducted the California Coast Act Consistency Determination by analyzing the project consistency with City of Long Beach Local Coastal Program (LCP). A Coastal Consistency Determination in compliance with the Coastal Commission's format and content requirements for a consistency report was incorporated into the Land Use Staff Assessment, including a detailed matrix of all applicable goals and policies, and the text narrative analysis for each policy.
- **Hydrogen Energy California (HECA) Power Plant, Kern County, CA.** Senior Technical Specialist and expert witness in charge of preparation of the Alternatives Staff Assessment for this integrated gasification combined cycle (IGCC) power generating facility. The project includes an integrated fertilizer production plant, and a rail spur for use in coal and pet-coke deliveries and transporting the nitrogen-based fertilizer, degassed liquid sulphur, and gasification solids. This is a joint SA/EIS, with US DOE as the lead NEPA agency.
- **Redondo Beach Energy Project (RBEP), Los Angeles, CA.** Senior Technical Specialist and expert witness in charge of preparation of the Alternatives Staff Assessment for this proposed natural-gas fired, combined-cycle, air-cooled electrical generating facility with a net generating capacity of 496 megawatt (MW), which will replace, and be constructed on the site of the AES Redondo Beach Generating Station.

  Huntington Beach Energy Project (HBEP), Huntington Beach, CA. Senior Technical Specialist and expert witness in charge of preparation of the Alternatives Staff Assessment for this proposed natural-gas fired,

combined-cycle, air-cooled, 939-megawatt (MW) electrical generating facility that will replace the AES Huntington Beach Generating Station.

OPT-IN CONTRACT

California Energy Commission, Contract #700-22-005; 10/1/2018 through 9/30/2023 and Contract #700-22-003; 4/28/2023 through 04/30/2025

- **Compass Energy Storage Project, San Juan Capistrano, CA (2024-present).** Senior Technical Expert for the preparation of the portion of the Staff Assessments/EIR section on Public Benefits to meet the AB 205 requirement of net economic benefits for the local agency, and other Opt-In requirements.
- **Soda Mountain Solar Project and BESS, Mojave Desert, CA (2024-present).** Senior Technical Expert for the preparation of the following Staff Assessments/EIR sections: Land Use/Agricultural Section; and Noteworthy Public Benefits to meet the AB 205 requirement of net economic benefits for the local agency, and other Opt-In requirements.
- **Kola Battery Energy Storage System Project (2023-present).** Senior Technical Expert providing environmental review for this 700-MW battery energy storage system proposed in Alameda County. The applicant has applied for licensing through CEC's "opt-in" certification process. Ms. Vahidi is guiding the preparation of the Staff Assessments/EIR sections for: Land Use (including Agriculture and Recreation), Socioeconomics, and Environmental Justice.

SITING, TRANSMISSION, AND ENVIRONMENTAL PROTECTION PEAK WORKLOAD, INCLUDING - NON-LITHIUM LONG DURATION ENERGY STORAGE

California Energy Commission, Contract #700-18-001; 10/1/2018 through 9/30/2023 and Contract #700-22-003; 9/14/2022 through 8/31/2025

- **Fountain Wind Project, Shasta County, CA (2022-present).** Senior Technical Expert in charge of the preparation of the Staff Assessments/EIR sections for: Agriculture, Land Use, and Forest Resources; Alternatives; Socioeconomics; and Environmental Justice; and assistance with Noteworthy Public Benefits.
- **Front of the Meter, Non-Lithium-Ion LDES to Support Critical Energy Resilience for DOD at Marine Corps Base Camp Pendleton (MCBCP). San Diego, CA (2023-ongoing).** CEQA Project Manager for an IS/MND analyzing the impacts of an energy storage facility at MCBCP.
- **CA3 Backup Generating Facility EIR, Santa Clara, CA (2021-present).** Senior Technical Specialist for the Agriculture and Forestry Resources, Land Use and Planning, Population and Housing, Recreation, Public Services, and Transportation Section(s) of the EIR for a nearly 470,000 square foot four-story data center and the associated new 100 megavolt amperes (MVA) electrical substation. Key issues included consistency of the proposed facility with City of Santa Clara zoning requirements for building height and property setbacks.
- **Bowers Backup Generating Facility, Santa Clara, CA (2021-present).** Senior Technical Specialist for the Population/Housing, Public Services, and Recreation Analyses for the CEC's Small Power Plant Exemption (SPPE) EIR.
- **San Jose Data Center 04, San Jose, CA (2021-present).** Senior Technical Specialist for the Population/Housing, Public Services, and Recreation Analyses for the CEC's Small Power Plant Exemption (SPPE) EIR.
- **Pittsburgh Back-Up Generating Facility, Pittsburgh, CA (2024-present).** Senior Technical Expert for the preparation of the Staff Assessments/EIR sections for: Agriculture and Forestry Resources, Land Use, Recreation. and Environmental Justice.
- **Replacement Tire Efficiency Program (RTEP) EIR. Statewide CA (2024-present).** Aspen is preparing a Programmatic EIR for the RTEP, which seeks to improve the energy efficiency of replacement tires through minimum standards and improving consumer access to information to ensure replacement tires for passenger cars and light-duty trucks sold in California are at least as energy-efficient as the original equipment tires sold on new vehicles. Implementation of the program requires the adoption of a regulation, which CEC will develop through a rulemaking proceeding. Ms. Vahidi is serving as the Senior Technical Expert for the Environmental Justice Analysis.

STEP PLANNING SUPPORT CONTRACT

California Energy Commission, Contract no. 700-22-004; 10/03/2022 through 04/30/2026

- **AB 525: Offshore Wind Planning & Assessments.** Senior Land Use, Socioeconomics/Environmental Justice, and Alternatives Technical Specialist. For the AB 525 draft the Offshore Wind (OSW) Strategic Plan, has developed draft summaries of the impacts, strategies for addressing impacts, and mitigation for Aesthetics, Agriculture and Forestry, Economic and Environmental Justice, and Land Use and Planning issues separated into onshore, coastal, and offshore geographic areas.
- **2025 SB 100 Joint Agency Report.** Senior federal land use and policy technical specialist for the transmission corridor planning portion of the report providing expertise on plans of the U.S. Bureau of Land Management and U.S. Forest Service, and existing and proposed National Monument plans.

TECHNICAL ASSISTANCE ON-CALL CONTRACT TO SUPPORT THE ENERGY COMMISSION'S ELECTRIC PROGRAM INVESTMENT CHARGE (EPIC) PROGRAM

California Energy Commission, Contract # 300-15-003, 4/1/16 - 3/30/23; and Contract # 300-22-004, 2023-2031

Ms. Vahidi serves as a Task Manager specialized in local planning and permitting as part of the Energy Deployment & Market Facilitation team for Aspen's EPIC contract. She provides support to the Energy Commission in conducting the CEQA adequacy reviews of grants and proposals for 37 different energy sectors in the areas of energy efficiency, energy generation, energy infrastructure, energy deployment, and market deployment. Aspen helps the Energy Commission evaluate the following research and development proposals (technical and CEQA adequacy evaluation): Improving Performance and Cost Effectiveness of Small Hydro, Geothermal, and Wind Energy Technologies; Advance Breakthrough and Piezoelectric-Based System Development to Increase Market Penetration of Distributed Renewable Generation; Advancing Cutting-Edge Technologies and Strategies to Reduce Energy Use and Costs in the Industrial, Agricultural and Water Sectors; Development, Demonstration and Deployment of Environmentally and Economically Sustainable Biomass-to-Energy System for the Forest and Food Waste Sectors; Solar+: Taking the Next Steps to Enable Solar as a Distribution Asset; Emerging Energy Efficient Technology Demonstration; Improving Performance and Cost Effectiveness of Wind Energy technologies; Improving Performance and Cost Effectiveness of Small Hydro, Geothermal and Wind Energy Technologies; Demonstrate Business Case for Advanced Microgrids in Support of California's Energy and GHG Policies; Production Scale-Up for Clean Energy Technologies; Bringing Rapid Innovation Development to Green Energy (BRIDGE) - Energy Storage; and Cost Reductions, Advanced Technology for Solar Modules (CREATE Solar).

ON-CALL ENVIRONMENTAL SERVICES

City of Banning, 2016-2021

Contract Manager for Aspen's 3-year on-call contract with the city to provide CEQA and environmental compliance services for development, entitlement, and public works projects.

DG SOLAR PROJECTS

SunPower and Riverside Public Utilities, 2016-2018

Project manager for the CEQA clearance documents and permitting of three small-scale (2 MWs and smaller) solar PV projects located in San Bernardino (County and City). Aspen prepared CEQA clearance documents (e.g., MNDs/ISs), cultural analyses, and coordinated on the local agency permitting efforts.

SENATE BILL 350 – DISADVANTAGED COMMUNITY IMPACT STUDY

California ISO, 2015-2016

Ms. Vahidi prepared the SB 350 Disadvantaged Community Impact Analysis focused on the feasibility and the socioeconomics and land use impacts of developing renewable energy throughout the State given California's RPS goals and transmission constraints.

ALTA EAST WIND PROJECT EIR/EIS

Kern County, 2011-2013

Aspen's Project Manager for the proposed Alta East Wind Project EIR/EIS, which generates up to 300 megawatts (MW) of electricity through wind power. The NEPA Lead Agency was BLM. The project includes up to 120 wind turbine generators, a substation, transmission interconnection to the SCE Windhub Substation, access roads, and ancillary facilities. The project area comprises 3,200 acres, 2,083 acres of which are on BLM land three miles northwest of the unincorporated town of Mojave in southeastern Kern County, California. The project was approved by the Kern County Board of Supervisors in January 2013. The Record of Decision was published in the Federal Register on May 24, 2013.

TULE WIND EIS, THIRD PARTY NEPA REVIEW

Bureau of Land Management, 2010-2014

Under contract to the BLM, Ms. Vahidi served as Aspen's Project Manager and assisted the BLM in reviewing the Draft and Final EIS/EIR for the proposed Tule Wind Project (EIS) to meet BLM and NEPA requirements. The EIS/EIR was prepared by a consultant under contract to the CPUC, also directed by BLM, together with San Diego County, Bureau of Indian Affairs, and California State Lands Commission. The joint document evaluated the proposed Tule Wind Project and the proposed East County Substation Project (ECO), along with other related parts of both projects. The BLM was the lead agency for NEPA compliance and the CPUC was the lead agency for CEQA compliance.

OCOTILLO EXPRESS WIND ENERGY PROJECT EIS/EIR

Imperial County, 2009-2011

Senior technical reviewer for the EIR/EIS with expertise in CEQA, NEPA, Social Science issues, and BLM requirements. Aspen prepared the EIS/EIR for the BLM and the County of Imperial for a 550-MW wind energy project near the town of Ocotillo. The spreads across a 14,980-acre site and consisted of the installation of 193 wind turbine generators and construction of a substation.

SOLAR PV PROJECTS

San Luis Obispo County, 2008-2012

Senior in charge of developing the methodology, approach, and thresholds of significance for analysis of impacts related to agricultural land conversion using the California Department of Conservation LESA Model for the following projects:

- **Topaz Solar Project EIR, County of San Luis Obispo, CA (Applicant**: First Solar). EIR for 500-MW solar photovoltaic project in the Carrizo Plain area. A major issue of concern was the conversion of approximately 6,000 acres of open space (60 percent of which are under land preservation contracts) to an industrial use; and impacts to lands under Williamson Act contracts.
- **California Valley Solar Ranch EIR (Applicant: SunPower), County of San Luis Obispo, CA.** EIR for this 250 MW solar photovoltaic project in the Carrizo Plain area. A major issue of concern is the conversion of approximately 4,000 acres of open space to an industrial use.

SAN ONOFRE NUCLEAR GENERATING STATION (SONGS) STEAM GENERATOR REPLACEMENT PROJECT

California Public Utilities Commission, 2004-2010

Technical Senior in charge of developing the methodology and guiding the analysis for the Land Use and Recreation Section of this EIR for the CPUC. The EIR addressed the environmental effects of SCE's proposed replacement of Steam Generator Units 2 & 3 at the SONGS Nuclear Power Plant located entirely within the boundaries of the US Marine Corps Base at Camp Pendleton. Issues of concern included potential conflicts resulting from the transport of the large units through sensitive recreation areas such as beaches, and the San Onofre State Park.

DIABLO CANYON POWER PLANT (DCPP) STEAM GENERATOR REPLACEMENT PROJECT

California Public Utilities Commission, 2004-2009

Technical Senior in charge of developing the methodology and guiding the analysis for the Land Use and Recreation Section of this EIR prepared for the CPUC. The EIR addressed impacts associated with the replacement of the eight original steam generators (OSGs) at DCPP Units 1 and 2 due to degradation from stress and corrosion cracking, and other maintenance difficulties. The Proposed Project would be located at the DCPP facility, which occupies 760 acres within PG&E's 12,000-acre owner-controlled land on the California coast in central San Luis Obispo County. Land use issues of concern include impacts to agricultural lands, recreational resources, and potential Coastal Act inconsistencies.

EIR FOR SOUTH SAN JOAQUIN IRRIGATION DISTRICT'S PLAN TO PROVIDE RETAIL ELECTRIC SERVICE, SPHERE PLAN, MSR, AND ANNEXATION

San Joaquin Irrigation District, 2010-2015

This Subsequent EIR (SEIR) evaluates environmental impacts associated with the SSJID application to provide retail electric service and evaluates changes in the project and changes with respect to the circumstances under which the project would be undertaken that have occurred since the original 2006 Final EIR was certified. LAFCo may then certify the Final SEIR and take action to adopt the Sphere Plan and MSR, adopt the proposed SOI, approve the annexation, and approve the application to provide retail electric service. Ms. Vahidi provided CEQA expertise to SSJID and served as the Senior Technical lead for the social science sections of the SEIR, including agriculture, land use, policy analysis, and socioeconomics.

INSTRUCTIONAL COURSES FOR CLIENTS

CEQA KNOWLEDGE TRANSFER TRAINING

LADWP, 2023

Task Order Manager. Aspen conducted two (2) 2-hour training modules to train LADWP Environmental Planning & Assessment Office staff on: 1) preparation of CEQA Initial Study Environmental Checklist Form; and 2) Seen-Area and Visual Assessment per USFS requirements.

CEQA TRAINING COURSE

Silicon Valley Power, 2021

Senior CEQA Expert/Instructor for a customized CEQA training session focused on CEQA Exemptions for Silicon Valley Power.

CEQA TRAINING COURSE

Central Basin Municipal Water District, 2017

Senior CEQA Expert/Instructor for a customized one-day Introduction to CEQA training session for the Central Basin Municipal Water District.

TRANSMISSION LINE AND SUBSTATION PROJECTS

EASEMENT UPDATES AND ACQUISITION SUPPORT

Consumers Power Inc., 2022

Aspen is providing support services to Consumers Power Inc. (CPI) in Oregon with updates utility easement acquisitions. This work is in response to wildfires in 2020 that caused substantial damage to utility infrastructure. To increase power reliability, CPI is replacing many of the damaged utility lines with underground easements. Ms. Vahidi is Aspen Project Manager for these support efforts, which includes mapping and tracking the easement acquisition and recordation tasks and managing the Team's right-of-way subconsultant's negotiations with property owners.

OPPORTUNITIES AND CONSTRAINTS ANALYSIS

Confidential Client, 2016-2017

Ms. Vahidi served as Senior Technical Lead for an Opportunities and Constraints Analysis for an underwater California transmission line off the coast. The analysis included a review of potential regulatory permitting requirements, environmental opportunities and constraints, and the types of political risk and public sensitives that a project of this type may encounter.

ON-CALL SERVICES

Western Area Power Administration, Desert Southwest Region, 2011-2014

Under Aspen's master contract with U.S. DOE, Western Area Power Administration, Desert Southwest Region, Ms. Vahidi served as a Task Order Manger for Western's operations and maintenance activities of its transmission line system, and associated access roads and rights-of-way (ROW). Task Orders typically included background research and surveys in support of NEPA Categorical Exclusions (CXs). The Task Orders she has managed include:

- **Parker-Davis Transmission System Routine O&M Project and Proposed IVM Program, Arizona, Nevada, and California.** For Western's to continued operations and maintenance (O&M) activities and the implementation of an Integrated Vegetation Management (IVM) program on the Parker-Davis Transmission System, in the DSW, Ms. Vahidi served as the Task Order Manager for the preparation of the Programmatic Environmental Assessment (EA). The EA analyzed the effects of the program on the Parker-Davis System, including 53 substations and 1,534 miles of transmission line, containing 9,993 transmission structures. Aspen planned and conducted four scoping meetings, and extensive coordination with the BLM and NPS. As part of this Project, Aspen recommended the preparation of a Regional General Permit for CWA compliance for the entire DSW. During extensive coordination with the USACE (Arizona, Nevada, 2 California, and New Mexico District Offices), Aspen worked with the USACE to determine applicability of Nationwide Permit No. 3 for DSW's O&M activities, thereby streamlining DSW's future permitting activities. Final EA was in August 2015 and Western issued a Finding of No Significant Impacts on September 30, 2015.
- **Electrical District #2-Saguaro #1 (ED2-SGR1) 115-kV Transmission Line Project CX, Pinal County, Arizona.** Pole replacement along two segments of the existing ED2-SGR1 115-kV transmission line ROW: 9.4 along ED2-ED4; and 17 miles along ED5-SGR1. Ms. Vahidi managed the biological resources surveys, the cultural resource surveys in support of NHPA Section 106 permitting and a CX determination for pole replacement. She also prepared the NEPA CX.
- **Parker – Blythe #1 Cross Arm Replacement Project, La Paz County, Arizona.** Western proposed to repair or replace cross arms on eleven existing structures of the Parker-Blythe #1 Transmission Line located just east of the Colorado River. Portions of the ROW are on tribal lands managed by the Bureau of Indian Affairs and lands managed by the Arizona State Land Trust. The Project included four helicopter staging areas, including one located on private land across the river in San Bernardino County, California. Ms. Vahidi managed the biological resources surveys, the cultural resource surveys in support of NHPA Section 106 permitting and a CX determination.
- **Mead – Liberty Transmission Line Access Road Project, Maricopa County, Arizona.** Western proposed to conduct access road maintenance and remove vegetation along the existing Mead-Liberty 345-kV transmission line. This work was necessary to maintain the safety and reliability of the bulk electrical system. Ms. Vahidi managed the biological resources surveys, the cultural resource surveys in support of NHPA Section 106 permitting and a CX determination, and review of the visual effects on BLM Lands through coordination with the BLM Hassayampa Field Office to determine the BLM VRM classifications.
- **Prescott – Pinnacle Peak Access Road Maintenance Project, southern Yavapai and northern Maricopa Counties, Arizona.** Western proposed to conduct access road maintenance and vegetation management along three segments of the Prescott-Pinnacle Peak 230 kV Transmission Line right-of-way (ROW). Access road maintenance, including brush clearance, would occur along 5.8 miles of existing 50-foot-wide access roads. Ms. Vahidi managed the biological resources surveys, the cultural resource surveys in support of NHPA Section

106 permitting, the Clean Water Act compliance, and review of the visual effects on BLM Lands through coordination with the BLM Hassayampa Field Office to determine the BLM VRM classifications.

- **Henderson – Mead Access Road Maintenance Project, Clark County, Nevada.** Western proposed to conduct Road improvement work along approximately 4.1 miles of the Henderson-Mead #1 230-kV Transmission Line, with a total of approximately 1.8 miles of existing roads that will require maintenance. Aspen prepared the Biological Resources Survey Report and Jurisdictional Waters/Wetlands Delineation Report. Based on recommendations from these reports, Aspen prepared the Pre-construction Notification and Permit Application Report to support a Clean Water Act Section 404 Nationwide permit for impacts to waters of the U.S., including wetlands, from the U.S. Army Corps of Engineers; and a Clean Water Act Section 401 water quality certification from the Arizona Department of Environmental Quality. Ms. Vahidi managed the preparation of these items.
- **Blythe – Knob Transmission Line Maintenance Project, eastern Riverside and Imperial Counties, California.** Western proposed to conduct maintenance activities along the Blythe-Knob (BLY-KNB) 161-kV Transmission Line, which is 64.4 miles in length, between the Blythe Substation near Highway 10 in Riverside County, and the Knob Substation near Highway 8 in Imperial County. The Gold Tap Substation is located along the Blythe-Knob Transmission Line, about 43 miles north of the Knob Substation, also in Imperial County. Maintenance activities were proposed at 116 of 484 towers along this line and included the following repairs: 24 pole replacements; 73 cross arm replacements; 21 cross arm brace replacements; 2 insulator replacements; 4 loose pole ground replacements; and 1 replacement of twisted armor rod. Ms. Vahidi managed the Biological Resources Surveys.
- **Rattlesnake – Del Bac Access road and Vegetation Management Project, Pima County, Arizona.** Western proposed to conduct access road maintenance and vegetation management activities along its Rattlesnake to Del Bac 115-kV transmission line. The project segment is the access road between Twin Peaks Pump and Sandario Pump. Ms. Vahidi managed the biological resources surveys for the Project.

TANC TRANSMISSION PROJECT (TTP)

Transmission Agency of Northern California and Western Area Power Administration, 2009-2012

Ms. Vahidi served as the Deputy Project Manager in charge of preparation of the EIR/EIS and guiding the CEQA/NEPA analysis. The Transmission Agency of Northern California (TANC) and Western Area Power Administration (Western), an agency of the US Department of Energy (DOE), were the CEQA lead agency and NEPA lead agency, respectively. The TTP generally would consist of approximately 600 miles of new and upgraded 500-kilovolt (kV) and 230-kV transmission lines, substations, and related facilities generally extending from northeastern California near Ravendale in Lassen County to the California Central Valley through Sacramento and Contra Costa Counties and westward into the San Francisco Bay Area. Ms. Vahidi worked with TANC and Western to initiate the scoping process, including preparation of the NOP, preparing for scoping meetings, frame-working the EIR/EIS document, etc. She also led the preparation of the project scoping report. The project was cancelled in July 2009.

EL CASCO SYSTEM PROJECT

California Public Utilities Commission, 2007-2015

Project Manager for this EIR prepared for the CPUC to evaluate SCE's application for a Permit to Construct (PTC) the El Casco System Project. The Project is located in northern Riverside County, and traverses the Cities of Beaumont, Banning, and Calimesa. A 115-kV subtransmission line begins at Banning Substation and extends westward toward the proposed El Casco Substation site within the existing Banning to Maraschino 115-kV subtransmission line and Maraschino–El Casco 115-kV subtransmission line ROWs. Major issues of concern included impacts to existing and residential land uses, which have led to the development of a partial underground alternative and a route alternative different than the project route proposed by SCE (the Applicant). The 1,200-page Draft EIR was released for a 45-day public review and comment on December 12, 2007 and evaluated project alternatives at the same level of detail as the Proposed Project analysis.

SACRAMENTO AREA VOLTAGE SUPPORT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (SEIS)
Western Area Power Administration, 2005-2009

Task leader for several social science sections for the SEIS for a double-circuit 230-kV circuit between Western's O'Banion/Sutter Power Plant and Elverta Substation/Natomas Substation. New transmission lines and transmission upgrades are needed to mitigate transmission line overload, reduce the frequency of automatic generation and load curtailment during the summer peak load periods, and help maintain reliability of the interconnected system operation. Ms. Vahidi directed the preparation of the land use, aesthetics, socioeconomics, and environmental justice sections of the SEIS.

SUNSET SUBSTATION AND TRANSMISSION AND DISTRIBUTION PROJECT CEQA DOCUMENTATION
City of Banning, 2005-2006

The City of Banning proposed to construct the Sunset Substation and supporting 33-kilovolt (kV) transmission line that would interconnect with the City's existing distribution system. The purpose of this new substation and transmission was to relieve the existing overloads that were occurring within the City's electric system and to accommodate projected growth in the City. Ms. Vahidi served as the Environmental Project Manager for the initial stages of CEQA documentation prepared for the City's Utility Department.

COOLWATER-LUGO TRANSMISSION PROJECT EIS/EIR
California Public Utilities Commission, 2014-2017

Senior Socioeconomics/Environmental Justice Analyst for this EIS/EIR analyzing a 64-mile transmission line traversing remote desert lands administered by the BLM, as well as populated areas in Hesperia, Apple Valley, and Lucerne Valley. Due to changes in circumstances affecting project need, the project was cancelled before the EIR/EIS process was completed.

DEVERS–PALO VERDE 500-KV TRANSMISSION LINE PROJECT EIS/EIR
Bureau of Land Management and California Public Utilities Commission, 2005-2014

For this EIR/EIS prepared by US Bureau of Land Management and CPUC, Ms. Vahidi served as the Deputy Project Manager and Social Sciences Issue Area Coordinator for SCE's proposed 250-mile transmission line project from the Palo Verde Nuclear power plant in Arizona to the northern Palm Springs area in California. Major issues of concern included EMF and visual impacts on property values, impacts on the area's vast recreational resources and tribal lands, and the development and evaluation of several route alternatives, including the Devers-Valley No. 2 Route Alternative, which eventually was approved by the CPUC.

DEVERS–PALO VERDE NO. 2 500-KV TRANSMISSION LINE PROJECT MMCRP
California Public Utilities Commission, 2007-2008

For the Mitigation Monitoring, Reporting, and Compliance Program (MMCRP), Ms. Vahidi served as Senior Land Use specialist reviewing pre-construction mitigation implementation plans, including the Construction Notification Plan prepared by SCE.

ANTELOPE-PARDEE 500-KV TRANSMISSION LINE PROJECT (A.K.A. TRTP SEGMENT 1) EIR/EIS
US Forest Service, Angeles National Forest and California Public Utilities Commission, 2005-2010

For this EIR/EIS prepared by USFS, Angeles National Forest and CPUC, Ms. Vahidi served as the Deputy Project Manager and Social Sciences Issue Area Coordinator for SCE's proposed 26-mile transmission line project from the Antelope Substation in the City of Lancaster, through the ANF, and terminating at SCE's Pardee Substation in Santa Clarita. Major issues of concern included impacts to biological, recreational, and cultural resources within National Forest System lands, EMF and visual impacts on property values, impacts on residences in the urbanized southern regions of the route, and the development and evaluation of several route alternatives.

ANTELOPE TRANSMISSION PROJECT (A.K.A. TRTP), SEGMENTS 2 & 3 EIR
California Public Utilities Commission, 2006-2015

For this EIR being prepared by the CPUC, Ms. Vahidi served as the Deputy Project Manager and Social Sciences Issue Area Coordinator. The proposed Project included both Segment 2 and Segment 3 of the Antelope Transmission Project and involved construction of new transmission line infrastructure from the Tehachapi Wind Resource Area in southern Kern County, to SCE's existing Vincent Substation in Los Angeles County. Major issues of concern include EMF and visual impacts on property values, impacts on residences and agricultural resources, and the development and evaluation of several substation and route alternatives.

TEHACHAPI RENEWABLE TRANSMISSION PROJECT (TRTP, SEGMENTS 4 THROUGH 11) EIR/EIS
US Forest Service, Angeles National Forest and California Public Utilities Commission, 2006-2015

For this EIR/EIS prepared by USFS, Angeles National Forest and CPUC, Ms. Vahidi is served as the Deputy Project Manager in the early stages (i.e., during Scoping) of the project for SCE's proposal to construct, use, and maintain a series of new and upgraded high-voltage electric transmission lines and substations to deliver electricity generated from new wind energy projects in eastern Kern County. Approximately 46 miles of the project would be located in a 200- to 400-foot right-of-way on National Forest System land (managed by the Angeles National Forest) and approximately three miles would require expanded right-of-way within the Angeles National Forest. The proposed transmission system upgrades of TRTP are separated into eight distinct segments: Segments 4 through 11. Segments 1 (Antelope-Pardee) and Segments 2 and 3 (Antelope Transmission Project) were evaluated in separate CEQA and NEPA documents as described above.

JEFFERSON-MARTIN 230 KV TRANSMISSION LINE PROJECT EIR
California Public Utilities Commission, 2002-2006

Ms. Vahidi served as the Issue Area Coordinator for the Social Science issues of the EIR, and was responsible for preparation of the socioeconomics, recreation, and public utilities sections of the EIR prepared on behalf of the CPUC to evaluate a proposed 27-mile transmission line in San Mateo County. Major issues of concern included EMF and visual impacts on property values, impacts on the area's vast recreational resources, and evaluation of several route alternatives.

MIGUEL-MISSION 230 KV #2 PROJECT EIR
California Public Utilities Commission, 2002-2007

Ms. Vahidi conducted the land use, recreation, socioeconomics, and environmental justice analyses for this EIR for a proposed 230-kV circuit within an existing transmission line ROW between Miguel and Mission substations in San Diego County. The proposed project included installing a new 230-kV circuit on existing towers along the 35-mile ROW, as well as relocation of 69-kV and 138-kV circuits on approximately 80 steel pole structures. In addition, the Miguel Substation and Mission Substation would be modified to accommodate the new 230-kV transmission circuit.

VIEJO SYSTEM PROJECT
California Public Utilities Commission, 2002-2006

Deputy Project Manager for the project's CEQA Initial Study/MND, prepared on behalf of the CPUC to evaluate Southern California Edison's (SCE) Application for a Permit to Construct the Viejo System Project, which was in SCE's forecasted demand of electricity and goal of providing reliable electric service in southern Orange County. The Viejo System Project would serve Lake Forest, Mission Viejo, and the surrounding areas. Components of the project included, construction of the new 220/66/12-kilovolt (kV) Viejo Substation, installation of a new 66 kV subtransmission line within an existing SCE right-of-way, replacement of 19 double-circuit tubular steel poles with 13 H frames structures, and minor modification to other transmission lines. Major issues of concern include visual impacts of transmission towers, EMF effects, and project impacts on property values.

SCE CALNEV POWER LINE AND SUBSTATION PROJECT IS/MND

California Public Utilities Commission, 1997

Aspen was contracted to thoroughly review and analyze Southern California Edison Company's Application for a Permit to Construct and Proponent's Environmental Assessment (PEA) for the Calnev Power Line and Substation Project in the City of Colton. Deputy Project Manager for preparation of the IS/MND.

SCE SIX FLAGS SUBSTATION AND POWER LINE PROJECT IS/MND

California Public Utilities Commission, 1997

Deputy Project Manager for preparation of the IS/MND. Reviewed and provided comments on the permit application by SCE to construct a substation and power line to provide electrical service to Six Flags Amusement Park in Valencia. Subsequent to the application completeness review, she prepared the project's IS/MND for CPUC. Identified possible deficiencies and provided recommendations.

ALTURAS TRANSMISSION LINE PROJECT EIR/EIS

California Public Utilities Commission, 1994-1996

Ms. Vahidi conducted the analysis of potential impacts on minority populations and low-income populations in compliance with Presidential Executive Order 12898 on Environmental Justice using Census data to determine population density, minority population percentages and unemployment rates, and the potential impacts of the transmission line on affected communities. She also managed development of meeting handouts; scheduling and logistics for four scoping meetings; developed and maintained project mailing list; reviewed public scoping comments and prepared the Scoping Report; coordinated four sets of informational workshops and public hearings for the Draft EIR/EIS; supervised the distribution of comments on the Draft EIR/EIS to the project team; and coordinated the distribution of the Draft and Final EIR/EIS to affected public agencies, organizations, and citizens.

WATER INFRASTRUCTURE AND SUPPLY PROJECTS

MATILIJA DAM ECOSYSTEM RESTORATION PROJECT (MDERP)

Ventura County Public Works Agency – Watershed Protection (VCPWA-WP), 2019-present

Ms. Vahidi currently serves as the Subsequent EIR Project Manager. In October 2000, VCPWA – WP initiated MDERP as a joint effort between VCPWA - WP and U.S. Army Corps of Engineers to develop a project resulting in the removal of Matilija Dam. The Project objectives included: aquatic and terrestrial habitat improvement along Matilija Creek and the Ventura River to restore a viable and abundant run of steelhead trout; restoration of natural sediment transport processes; and an increase in recreation opportunities. The joint EIS/EIR was prepared by Aspen and certified in 2004. In June 2017, the VCPWA – WP received funding to implement the Matilija Dam Removal 65% Design Planning Project. The SEIR will provide a complete and objective analysis of the revised scheme for dam removal. The project is currently in the Administrative Draft SEIR phase.

RINDGE DAM REMOVAL PATHWAY RISK-BENEFIT ASSESSMENT

CalTrout and California Department of Parks and Recreation, 2019-2020

Aspen prepared a risk-benefit assessment of a pathway for removal of Rindge Dam on Malibu Creek in the coastal zone. Ms. Vahidi served as Deputy Project Manager and led up the funding sources task and the SWOT Analysis, which was used to evaluate the relative advantages and disadvantages of selecting various federal partners for the project.

LITTLEROCK RESERVOIR SEDIMENT REMOVAL PROJECT EIS/EIR

Palmdale Water District and USFS Angeles National Forest, 2004-present

Ms. Vahidi is the overall Project Manager for the CEQA/NEPA, design, permitting, and compliance monitoring efforts for this project evaluating the impacts of sediment removal alternatives for the Littlerock Reservoir and

Dam on USFS Angeles National Forest (NEPA Lead Agency) lands in Los Angeles County. The Palmdale Water District (District) [CEQA Lead Agency] will be removing approximately 1,165,000 cubic yards of sediment from the reservoir (behind the dam) and hauling it to off-site commercial gravel pits located 6 miles north of the dam site in the community of Littlerock. The project involves impacts to the arroyo toad, extensive coordination with USFWS for a Section 7 consultation, incorporation the Forest Service Land Management Plan requirements into the analysis, preparation of the Forest Service required BE/BA, and analysis of compliance with federal air quality conformity requirements. Under Ms. Vahidi's direction, Aspen developed several different project alternatives for sediment removal and deposition, involving detailed hydraulics analysis and preparation of a hydraulics technical report, and coordination with off-site uses that can accept sediment. The most feasible of these alternatives (grade control structure) was chosen by the PWD as their proposed project evaluated in the EIS/EIR. PWD considered an additional alternative (use of a slurry line for sediment removal) presented by Aspen. The Draft EIS/EIR was published in March 2016 and the Final EIS/EIR and ROD were issued in June 2017. Aspen has acquired all project permits, including the 1601, 401, and 404 permits for the grade control structure and sediment removal. In addition, the Aspen engineering team is currently working on finalizing the sediment removal excavation plan. Aspen has also finalized the worker environmental training and awareness program (WEAP) and all compliance monitoring plans as required by project conditions. The grade control structure's construction commenced in October 2018 and will be followed by 7-12 years of sediment removal.

SAN GABRIEL TOWER & IMPROVEMENTS PROJECT

Metropolitan Water District of Southern California, 2018-2022

Ms. Vahidi currently serves as the Project Manager providing CEQA and permitting services for improvements to the San Gabriel Tower, which regulates, and isolates flows from Morris Dam (and the Morris Reservoir) into the Monrovia Tunnel system, where it is transported for treatment and delivery to Metropolitan customers in Los Angeles. The Project would lower the height of San Gabriel Tower and replace the originally-installed slide gates and actuators. This retrofit is needed to meet the most current seismic codes and regulations, and ensure that the facility is reliable in the event of a major earthquake. Currently, Aspen is working on the Biological Technical Report and working with Metropolitan to determine the type of CEQA documentation needed.

CAMP 8 HELISPOT IMPROVEMENT PROJECT

Los Angeles Department of Public Works, 2016-2017

Under Aspen's contract to the County of Los Angeles Department of Public Works, served as Task Order Manager for CEQA Categorical Exemption Technical Memorandum and Notice of Exemption for an approximate 1,800-foot, 6-inch water pipeline to help supply water to the County's Camp 8 Fire Station helipads for firefighting.

WATER SUPPLY ENVIRONMENTAL AND PERMITTING SERVICES FOR THE SAN GORGONIO HYDROELECTRIC PROJECT

City of Banning, 2017-2018

Under contract to the City of Banning, Aspen is currently assisting the City review options related to hydroelectric facilities located on the SBNF that supply portions of the City water supply. Ms. Vahidi is serving as the CEQA/ NEPA technical lead and expert in Forest Service planning issues.

ENVIRONMENTAL JUSTICE AND SOCIOECONOMICS BASELINE CONDITIONS TECHNICAL REPORT, SGPWA WATER SUPPLY FACILITY REMOVAL PROJECT

San Gorgonio Pass Water Agency, 2015

Project Manager and Senior Socioeconomics Technical Specialist for a technical report prepared for the San Gorgonio Pass Water Agency (SGPWA). The Project facilities currently supply consumptive water to the community of Banning Bench and the City of Banning. The pipeline proposed for removal is currently the only source of potable water supply for the community of Banning Bench. Therefore, removing the 1,100-foot section of pipe would curtail water deliveries to the community.

LAKE GREGORY DAM REHABILITATION PROJECT
San Bernardino County, 2015-2018

Senior Project Manager for this EIR evaluating the impacts of proposed construction activities at Lake Gregory Dam to rectify structural inadequacies in the dam and to mitigate dam safety concerns. The California Department of Water Resources determined that the proposed project would include the use of an earthen buttress for dam stabilization, which was fully analyzed in the EIR. The EIR also analyzed three other viable remediation options as project alternatives in accordance with the CEQA.

SANTA ANA VALLEY PIPELINE REPAIRS PROJECT
California Department of Water Resources, 2003-2005

Under Aspen's on-going environmental services contract with the DWR, Ms. Vahidi served as the project manager for CEQA documentation and permitting efforts related to the repair of 12 sites along the pipeline portion of the East Branch of the California Aqueduct. The repair of the 12 sites was crucial because, eight of the Priority 1 sites included areas of the pipeline that were under high stress and subject to rupture. Issues of concern included, potential impacts to special status species, sensitive receptors, and traffic. As the DWR's CEQA consultant, Ms. Vahidi determined that the proposed SAPL Repairs Project would qualify for a CEQA Categorical Exemption, and recommended the preparation of a Technical Memorandum to justify this exemption. The Technical Memorandum and supporting documentation, including a Biological Constraints Report, and analyses of proposed project potential construction-related air quality, noise, and traffic impacts, were prepared and presented to DWR as one packet to support both a Class 1 and Class 2 CEQA Exemption. Subsequent to preparation of this packet, DWR filed a Notice of Exemption on June 13, 2003 for their repair activities.

PIRU CREEK EROSION REPAIRS AND BRIDGE SEISMIC RETROFIT PROJECT
California Department of Water Resources, 2003-2004

Under Aspen's on-going environmental services contract with the DWR, Ms. Vahidi served as the project manager an IS/MND prepared to evaluate the impacts of the project, which proposed to maintain four access routes to DWR's facilities along the West Branch of the California Aqueduct downstream of the Pyramid Dam. Repair and improvement activities would occur on Osito Canyon (an intermittent tributary to Piru Creek) at Osito Adit, adjacent to Old Highway 99 at North Adit (or access tunnel), alongside an eroded section of Old Highway 99 along Piru Creek, and at Pyramid Dam Bridge. Repair activities would serve to improve conditions of access routes, as well as strengthening and reinforcing them against seismic or flood events. Project-related construction could result in potentially significant impacts to biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, and transportation and traffic.

PYRAMID LAKE REPAIRS AND IMPROVEMENTS PROJECT
California Department of Water Resources, 2003-2004

Under Aspen's on-going environmental services contract with the DWR, Ms. Vahidi served as the project manager for CEQA documentation, ADA (Americans with Disabilities Act) compliance, and permitting efforts for this project. DWR and the Department of Boating and Waterways (DBW) planned repairs and improvements at various recreational sites at Pyramid Lake, which is located on the border between Los Padres National Forest and Angeles National Forest; recreation is managed by Angeles National Forest. The lake is also part of Federal Energy Regulatory Commission Project 2426. Aspen worked with DWR and DBW to determine ADA compliance components at each site. CEQA documentation in support of a Class 1 and 2 Categorical Exemption was prepared to evaluate the potential impacts of the repairs and improvements and provide CEQA clearance for filing of required permit applications, including but not necessarily limited to 404, 401, and 1602 permits. In addition to the CEQA documentation and preparation of permit applications, Aspen coordinated DWR and DBW's efforts with the ANF, and the permitting agencies (i.e., CDFG, RWQCB, and USACE). Through coordination with the USACE, Aspen prepared the NEPA EA for Corps 404 permit process, and reviewed and coordinated revisions to the 1602 with CDFG.

OIL AND GAS PROJECTS

CENTRAL COAST FIELD OFFICE OIL AND GAS LEASING AND DEVELOPMENT RMP AMENDMENT AND EIS

Bureau of Land Management, 2014-present

On behalf of the BLM Central Coast (formerly Hollister) Field Office, served as the Social Sciences Task Leader for the RMP Amendment and associated EIS to guide management of oil and gas resources on BLM-administered mineral estate within the 12 counties in the CCFO. The RMPA/EIS analyzes the effects of alternative oil and gas management approaches to update the reasonably foreseeable development scenario (RFD) and the existing 2007 Hollister RMP in order to incorporate new information about well stimulation technologies, natural resource conditions, and socioeconomic trends. As part of this project, Ms. Vahidi assisted the BLM facilitating a public involvement effort that included a Social and Economic Workshop on February 11, 2015 (consistent with the requirements of the BLM Land Use Planning Handbook Appendix D) to help develop the social and economic analysis for their RMP Amendment. The purpose of the Workshop was to provide an opportunity for local government officials, community leaders, and other citizens to discuss regional economic conditions, trends, and strategies with BLM managers and staff. Ms. Vahidi and her staff socioeconomists developed the format for and guided the workshop and provided informational handouts on local and regional economic and social conditions and trends; assisted participants with identifying desired economic and social conditions; and identified ways to advance local economic and social goals through BLM's planning and policy decisions associated with the pro-posed RMPA. Ms. Vahidi also guided the preparation of, and authored portions of, the following EIS sections: Socioeconomics and Economic Conditions (which includes Environmental Justice), Lands and Realty, Special Management Areas, and Wild and Scenic Rivers.

ANALYSIS OF OIL AND GAS WELL STIMULATION TREATMENTS IN CALIFORNIA

California Department of Conservation, 2013-2015

Aspen prepared an Environmental Impact Report (EIR) assessing oil and gas well stimulation treatments throughout California, as required by Section 3161 (b)(3) and (4) of Public Resources Code Chapter 1, Division 3, (Senate Bill 4 [Pavley]), as signed into law on September 20, 2013, and subsequently amended in 2014 by Senate Bill 861. Section 3161 (b)(3) and (4) required the Division of Oil, Gas, and Geothermal Resources to evaluate the impacts of well stimulation treatments that occur from either existing or future oil and gas wells, including hydraulic fracturing and acid well stimulation. Ms. Vahidi served as the technical senior for the land use, recreation, and population and housing sections of the EIR. The Final EIR was published in July 2015.

CABRILLO PORT LIQUEFIED NATURAL GAS (LNG) DEEPWATER PORT

City of Oxnard, 2004

Under contract to the City of Oxnard, Aspen was tasked to review the Draft EIS/EIR for this the proposed construction and operation of an offshore floating storage and regasification unit (FSRU) that would be moored in Federal waters offshore of Ventura County. As proposed, liquefied natural gas (LNG) from the Pacific basin would be delivered by an LNG Carrier to and offloaded onto, the FSRU; re-gasified; and delivered onshore via two new 21.1-mile (33.8-kilometer), 24-inch (0.6 meter) diameter natural gas pipelines laid on the ocean floor. These pipelines would come onshore at Ormond Beach near Oxnard to connect through proposed new onshore pipelines to the existing Southern California Gas Company intrastate pipeline system to distribute natural gas throughout the Southern California region. Ms. Vahidi reviewed the document for technical adequacy and assisted the City in preparing written comments for the following sections of the EIS/EIR: Aesthetics, Land Use, Recreation, Socioeconomics, and Environmental Justice.

LONG BEACH LNG IMPORT PROJECT

City of Long Beach, 2005-2006

Under contract to the City of Long Beach, Aspen was tasked to review the Draft EIS/EIR for the proposed construction and operation of this onshore LNG facility to be located at the Port of Long Beach. Ms. Vahidi

reviewed the document for technical adequacy and assisted the City in preparing written comments for the following sections of the EIS/EIR: Aesthetics, Land Use, Recreation, Socioeconomics, Environmental Justice, and Port Master Plan Amendment.

POST-SUSPENSION ACTIVITIES OF THE NINE FEDERAL UNDEVELOPED UNITS AND LEASE OCS-P 0409

US Department of the Interior, Minerals Management Service, 2004-2009

Aspen assisted the US Department of the Interior, Minerals Management Service (MMS) to prepare an Environmental Information Document (EID) evaluating the potential environmental effects associated with six separate suspensions for undeveloped oil and gas leases Pacific Outer Continental Shelf (OCS) located offshore southern California. These undeveloped leases lie between 3- and 12-miles offshore Santa Barbara, Ventura and southern San Luis Obispo Counties and are grouped into nine units, with one individual lease that is not unitized. As the Senior Aspen social scientist, Ms. Vahidi guided the analysis of community characteristics and tourism resources, recreation, visual resources, social and economic environment, and military operations.

KINDER MORGAN CONCORD-SACRAMENTO PIPELINE EIR

California State Lands Commission, 2002-2003

Ms. Vahidi prepared the environmental justice and utilities and service systems sections of an EIR evaluating a proposed 70-mile petroleum products pipeline for the California State Lands Commission. Analysis included consideration of potential impacts of pipeline accidents in Contra Costa, Solano, and Yolo Counties.

SHORE MARINE TERMINAL LEASE CONSIDERATION PROJECT EIR

Chambers Group, California State Lands Commission, 2002

Served as Aspen's Project Manager (under contract to Chambers Group, Inc.) in charge of conducting the preparation of the Land Use, Recreation, Air Quality, and Noise sections of this EIR evaluating Shore Terminal, LLC's application to the California State Lands Commission (CLSC) to exercise the first of two 10-year lease renewal options, with no change in current operations. Shore Terminals operations comprise the marine terminal and on-land storage facilities in an industrial part of the city of Martinez. The marine terminal is on public land leased from the CSLC with the upland storage facilities located on private land.

CITY OF HERMOSA BEACH URBAN DRILLSITE

City of Hermosa Beach, 1995-1998

Served as project assistant for Aspen's contract to assist the City of Hermosa Beach with the review of the risk assessment for the Macpherson Oil Project.

TECHNICAL SUPPORT TO NEPA LAWSUIT

USDA Forest Service, 1996

Ms. Vahidi prepared a detailed project chronology and a list of all applicable federal, State, and local laws and regulations in support of the USDA Office of General Counsel and National Forest's response to the City of Los Angeles' 1996 lawsuit on the adequacy of the Pacific Pipeline EIS.

YELLOWSTONE PIPELINE EIS

USDA Forest Service, 1997-2001

Environmental Justice and Public Services Issue Area Specialist. Responsible for conducting the analysis of project impacts on minority and low-income populations to comply with Presidential Executive Order 12898 on Environmental Justice using Census data to determine population density, minority population percentages and unemployment rates to determine the potential for disproportionate project impacts on affected communities. Also responsible for conducting analysis of project impacts such as population immigration and pipeline accidents on public services in western Montana. During the EIS scoping process, she served as the project public

participation coordinator and was responsible for preparation of the project newsletter, setup of the first round of scoping meetings, and determination of project information centers.

SANTA FE PACIFIC PIPELINE PROJECT EIR

California Public Utilities Commission, 1995-1996

Ms. Vahidi was responsible for development and screening of alternatives for a 13-mile petroleum products pipeline from Carson to Norwalk. Prepared analyses of project impacts on socioeconomics, public services, utilities, and aesthetics.

PACIFIC PIPELINE PROJECT MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM (MMCRP)

California Public Utilities Commission, 1996-1998

Ms. Vahidi served as the expert technical reviewer for the socioeconomics and environmental justice issues. As the MMCRP Agency Liaison, she was responsible for developing protocol for efficient interagency communication procedures in coordination of mitigation activities with the CPUC, USFS, Responsible Agencies, and the project proponent. She was also responsible for the development and management of the MMCRP Community Outreach and Public Access Program.

PACIFIC PIPELINE PROJECT EIR

California Public Utilities Commission, 1993-1994

For the California Public Utilities Commission's (CPUC) EIR on the originally proposed route of this proposed pipeline (from Santa Barbara County to Los Angeles), Ms. Vahidi developed and coordinated a public participation program to comply with CEQA's mandate for information disclosure and public involvement in decision-making. The Final EIR was certified in September 1993.

PACIFIC PIPELINE PROJECT EIS AND SUBSEQUENT EIR

California Public Utilities Commission, 1994-1996

Ms. Vahidi prepared the socioeconomics and public services analysis, the Environmental Justice analysis in compliance with Presidential Executive Order 12898, as well as portions of the Land Use and Public Recreation analyses, including a comprehensive comparative analysis of project alternatives on this EIS/Subsequent EIR for the US Forest Service (Angeles National Forest) and the CPUC. Ms. Vahidi managed the subsequent GIS mapping of socioeconomic data relative to pipeline corridor alternatives and other industrial facilities. She also prepared the cumulative projects list (covering a five-county area for the Proposed Project and its alternatives) used for the cumulative scenario analyses of the various issue areas in the EIS/SEIR. As the Public Participation Program Coordinator for the project, she developed, implemented, and managed the public involvement efforts for the NEPA and CEQA environmental review processes. This included: setup and logistics for 20 separate scoping meetings, informational workshops, and public hearings along the project route; preparation of all meeting handouts; preparation of project newsletters and public notices; placement of project documents on Internet; and maintenance of a project tele-phone information hotline. She also reviewed over 2,000 public comments (written and verbal) received on the Draft EIS/SEIR, for subsequent distribution to the project team.

FIBER OPTICS PROJECTS

RTI TRANSPACIFIC FIBER-OPTIC CABLES PROJECT

City of Hermosa Beach, 2019-present

Aspen is providing CEQA support services to the City for the proposed installation of two submarine fiber-optic cables that would connect to the Power Feed Equipment station that was installed as part of the previously approved Transpacific Fiber Optic Cables Project. Ms. Vahidi serves as the EIR Project Manager.

MARS EIR/EIS

California State Lands Commission, 2004-2007

Senior technical specialist in charge of preparing the Environmental Justice analysis for this EIR/EIS, which evaluated the effects associated with the installation and operation of the proposed Monterey Accelerated Research System (MARS) Cabled Observatory Project (Project) proposed by Monterey Bay Aquarium Research Institute (MBARI) [NEPA Lead Agency]. The goal of the Project was to install and operate, in State and Federal waters, an advanced cabled observatory in Monterey Bay that would provide a continuous monitoring presence in the Monterey Bay National Marine Sanctuary (MBNMS) as well as serve as the test bed for a state-of-the-art regional ocean observatory, currently one component of the National Science Foundation (NSF) Ocean Observatories Initiative (OOI). The Project would provide real-time communication and continuous power to suites of scientific instruments enabling monitoring of biologically sensitive benthic sites and allowing scientific experiments to be performed. The environmental justice analysis evaluated the potential for any disproportionate project impacts to both land-based populations and fisheries workers. The CEQA Lead Agency was CSLC.

LOOKING GLASS NETWORKS FIBER OPTIC CABLE PROJECT IS/MND

California Public Utilities Commission, 2002-2004

As part of Aspen's ongoing contract with the CPUC for review of Telecommunications projects, this document encompassed the evaluation of project impacts and network upgrades in the San Francisco Bay Area and the Los Angeles Basin Area. Ms. Vahidi served as the Deputy Project Manager and Study Area Manager for the Los Angeles Basin for this comprehensive CEQA document reviewing the potential impacts of hundreds of miles of newly proposed fiber optic lines throughout northern and southern California, including Los Angeles and Orange Counties. Issues of concern focused on potential construction impacts of linear alignments in highly urbanized rights-of-way, and resultant land use, traffic and utilities conflicts.

RECREATION MANAGEMENT PROJECTS

WILLIAMSON ROCK/PACIFIC CREST NATIONAL SCENIC TRAIL PROJECT

USDA Forest Service, 2016-2020

EIS Project Manager and land use specialist for this project proposed by the USDA Forest Service, Angeles National Forest. The Forest Service proposes to provide limited, managed recreational activities of Williamson Rock and the surrounding vicinity. The proposed action would include allowing access to the Pacific Crest National Scenic Trail (PCT) and limited access to Williamson Rock for rock climbing, while protecting the federally listed mountain yellow-legged frog (MYLF) and other unique resources. The area has been closed to the public since December 2005, either by Forest Order or court injunction, to protect the MYLF. The Draft EIS was published on July 27, 2018, and Aspen is currently working on the Final EIS. (contract with NFWF).

PUERCO CANYON CAMP AND TRAILHEAD PROJECT

Mountains Recreation and Conservation Authority, 2018-2019

Senior Land Use Technical Expert for this project proposed by the Mountains Recreation and Conservation Authority (MRCA) to construct and operate a day use, camping, and trailhead facility in the Santa Monica Mountains. The Puerco Canyon Camp and Trailhead Project is located entirely within the California coastal zone. Ms. Vahidi led up the California Coastal Act consistency determination by preparing a technical memorandum to justify the project's consistency with the Santa Monica Mountains Local Coastal Program (LCP) and the City of Malibu LCP. She also led up the land use analysis for the project. The findings of the LCP technical memo and the overall land use analysis are included the EIR, which would be used by Los Angeles County and the City of Malibu to issue their respective conditional use permits for the project. She also facilitated the project's scoping meeting. The EIR is currently on hold subsequent to the Woolsey fire.

FUELS MANAGEMENT PROJECTS

STATEWIDE WILDLAND URBAN INTERFACE FUELS TREATMENTS, PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (SWFT PEA)

U.S. Bureau of Land Management, 2022-present

Large-scale wildfires are increasing exponentially throughout the western United States, with California experiencing over 8,000 wildfires in 2021, often having catastrophic effects on communities and surrounding public lands. The SWFT initiative is designed to reduce the intensity, severity, and spread of wildfire in and around communities and surrounding lands by reducing hazardous fuels on BLM lands and create a safer fire suppression environment during wildfire events. Preparation of the Statewide Wildland Urban Interface Fuels Treatments Programmatic Environmental Assessment (SWFT pEA) is being conducted by the California State Office (CSO), Bureau of Land Management (BLM), in Sacramento, California. Ms. Vahidi serves as the senior technical lead in charge of developing the approach for and conducting the programmatic analysis of fuels treatment effects on minority populations and low-income populations Statewide, which will be incorporated into the pEA.

POWERHOUSE VEGETATION AND FUELS PROJECT AND SAWMILL-LIEBRE REFORESTATION PROJECT

National Forest Foundation, 2019-2020

Project Manager for Aspen's efforts supporting the ANF on conducting field surveys, preparation of specialist reports, and NEPA documentation. The goal of the first project is to complete forest health and fuel management treatments and the second project includes reforestation in areas affected by the Powerhouse Fire. Aspen is serving on the ID Team and conducting the following: Archeology and Heritage surveys and assessment; Biological Resources Report with Botany Surveys; Fuels Assessment and Fire Behavior Assessment; Hydrology and Soils Report; and NEPA Decision Memos to support two categorical exclusions.

OTHER PROJECTS

OTAY RIVER WATERSHED MANAGEMENT PLAN (ORWMP) AND SPECIAL AREA MANAGEMENT PLAN (SAMP

San Diego County, 2003-2007

Ms. Vahidi served as a Technical Senior for social science and land use issues. The ORWMP focused on developing strategies to protect and enhance beneficial uses within this watershed and thereby comply with the San Diego Region's NPDES permit, and the SAMP intended to achieve a balance between reasonable economic development and aquatic resource preservation, enhancement, and restoration in this 145-square-mile (93,000-acre) area through the issuance of Corps and CDFG programmatic permits.

ENVIRONMENTAL SERVICES ON-CALL CONTRACTS

US Army Corps of Engineers, Los Angeles District, 1993-1998

Ms. Vahidi is responsible for managing Delivery Orders and conducting the analyses of the social science issue areas for 16 projects throughout southern California and Arizona as part of two environmental services contracts. Delivery orders have included:

- **Northeast Phoenix Drainage Area Alternatives Analysis Report, Phoenix and Scottsdale, AZ.** As the project manager guided the preparation of an alternatives analysis report that evaluated the potential environmental impacts associated with channel and detention basin alternatives to control flooding problems resulting from fast rate of development in the northeast Phoenix area.
- **Imperial Beach Shore Protection EIS/EIR, Imperial Beach, CA.** Responsible for preparing the affected environment and environmental consequences sections for the land use, recreation, aesthetics, and socioeconomics issue areas. This EIS will analyze the impacts of shore protection measures along a 4.7-mile stretch of beach in southwest San Diego County.

- **US Food and Drug Administration Laboratory EIS/EIR, Irvine, CA.** Prepared the land use and recreation; socioeconomics, public services, and utilities; and visual resources/aesthetics analyses for this proposed "mega-laboratory" on the University of California Irvine Campus. Also developed the cumulative projects scenario for analyses of cumulative impacts. As the Public Participation Coordinator for the EIS/EIR review process, prepared the NOP, set up the scoping meeting and public hearing, prepared meeting handouts, and developed the project mailing list.
- **San Antonio Dam EIS, Los Angeles and San Bernardino Counties, CA.** Responsible for preparing the cultural resources, land use and recreation, and aesthetics sections for the analysis of impacts resulting from the re-operation of San Antonio Dam to increase flood protection.
- **Rio Salado Environmental Restoration EIS, Phoenix and Tempe, AZ.** Conducted the land use and recreation, and aesthetics analyses for this environmental restoration project in the Salt River and Indian Bend Wash located in the Cities of Phoenix and Tempe. Incidental to the primary objective of the Proposed Action (environmental restoration) is the creation of passive recreational opportunities associated with the restored habitat areas, such as trails for walking and biking, and areas for observing wildlife and learning about the natural history of the river.
- **Airspace Restrictions EA, Ft. Irwin, CA.** Conducted the land use, recreation, aesthetics, and socioeconomics analyses of impacts for the conversion of unrestricted airspace to restricted airspace above Ft. Irwin in the Mojave Desert.
- **National Guard Armory Building EA, Los Angeles, CA.** Conducted the land use, aesthetics, and socioeconomics analyses and prepared the cumulative impacts and policy consistency sections.
- **Supplemental EA for the Seven Oaks Dam Woolly Star Land Exchange, San Bernardino County, CA.** Prepared the land use and recreation analyses and policy consistency section.
- **Lower Santa Ana River Operations and Maintenance EA, Orange County, CA.** Responsible for conducting the land use, recreation, aesthetics, socioeconomics, and cultural resources analyses.
- **EA for Area Lighting, Fencing, and Roadways at the International Border, San Diego, CA.** Conducted the land use, aesthetics, and socioeconomics analyses and prepared the policy consistency section.
- **Border Patrol Checkpoint Station EA, San Clemente, CA.** Analyzed the aesthetic impacts of the installation of a concrete center divider and a Pre-inspected Automated Lane adjacent to and parallel to Interstate 5.
- **Upper Newport Bay Environmental Restoration Project, Newport Beach, CA.** Prepared physical setting, socioeconomics, land and water uses, and cultural resources sections for the Baseline Conditions Report and the Environmental Planning Report.
- **Whitewater/Thousand Palms Flood Control Project, Thousand Palms, CA.** Prepared the land use and recreation, aesthetics, and socioeconomics affected environment sections for the project's Baseline Conditions Report that was incorporated into the project EIS.
- **San Antonio Creek Bridges Project, Vandenberg Air Force Base, CA.** Prepared the physical setting, land use, socioeconomics, utilities, and aesthetics sections for analyses of bridge alternative impacts for missile transport on Vandenberg Air Force Base.
- **Ft. Irwin Expansion Mitigation Plan, Mojave Desert, CA.** Responsible for developing Ft. Irwin's Public Access Policy based on mitigation measures from the Army's Land Acquisition EIS for the National Training Center. Policy includes provisions for access by research and scientific uses.

INDUSTRYWIDE SURVEY

South Coast Air Quality Management District, 1993

Ms. Vahidi coordinated Aspen's work for an Air Toxics Survey of harmful emissions by auto body and paint shops, performed in compliance with AB2588. She was responsible for development of an industrywide emission inventory for these facilities; she also performed information management, facility verifications, survey mail-outs, emissions calculations, analysis of calculated results, and preparation of the final report.

HONORS AND AWARDS

- 2019 American Planning Association, Inland Empire Section Award of Hard Won Victories for the San Bernardino County Renewable Energy and Conservation Element
- 2017 American Planning Association, San Diego Section Award of Excellence for the Imperial County Conservation and Open Space Element Update
- 2017 California Association of Environmental Professionals, Merit Award for Environmental Resource Document, REVEAL Initiative Report
- 2016 California Association of Environmental Professionals, Merit Award for Environmental Analysis Document for the San Luis Obispo County Renewable Energy Streamlining Program
- 2013 California Association of Environmental Professionals, Outstanding Award for Environmental Analysis for the Ocotillo Wind Energy Farm EIS/EIR
- 2006 American Planning Association, Los Angeles Section Environmental Award for the Los Angeles Unified School District New School Construction Program, Program EIR
- 2004 Association of Environmental Professionals Statewide Best EIR Award for the Jefferson-Martin 230-kV Transmission Project EIR
- 2001 Outstanding Performance Award from the State of California Energy Commission
- 1992-93 recipient of the USC Merit ("Ides of March") Scholarship from the Southern California Association of Public Administrators (SCAPA)
- University of California, Irvine, School of Social Sciences. Graduated with Highest Honors in Political Science.

INSTRUCTIONAL COURSES FOR CLIENTS

- Siting Technical Presenter and Panelist at the **U.S. Offshore Wind Synthesis of Environmental Effects Research (SEER) Webinar**, Environmental Considerations for Nearshore Ecosystems from Cable Landfall, Navigation, and Port Development for Offshore Wind Energy, September 2023.
- CEQA Knowledge Transfer Training, Los Angeles, CA**.** Task Order Manager. Aspen conducted two (2) 2-hour training modules to train LADWP Environmental Planning & Assessment Office staff on:
  - Preparation of **CEQA Initial Study Environmental Checklist Form**; and
  - **Seen-Area and Visual Assessment** per USFS requirements.
- CEQA Training Cours for Silicon Valley Power, 2021. Senior CEQA Expert/Instructor for a **customized CEQA training session focused on CEQA Exemptions** for Silicon Valley Power.
- **Central Basin Municipal Water District**, 2017. Senior CEQA Expert/Instructor for a customized one-day Introduction to CEQA training session for the Central Basin Municipal Water District.

PROFESSIONAL AFFILIATIONS

- American Planning Association (APA), Los Angeles Section Executive Board Member 1999-2001
- National Association of Environmental Professionals (NAEP)