DOCKETED	
Docket Number:	21-SPPE-01
Project Title:	CA3 Backup Generating Facility-Vantage
TN #:	242674
Document Title:	Staff's Opening Testimony with Declarations and Resumes, dated April 14, 2022
Description:	N/A
Filer:	Alicia Campos
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	4/14/2022 2:40:11 PM
Docketed Date:	4/14/2022

State of California **California Natural Resources Agency**

M e m o r a n d u m

To: Vice Chair Siva Gunda, Presiding Member
Commissioner Kourtney Vaccaro, Associate Member

Date: April 14, 2022

From: **California Energy Commission**
715 P Street, MS 40
Sacramento, CA 95814-5512

Eric Veerkamp
Project Manager
(916) 661-8458

Subject: STAFF'S OPENING TESTIMONY WITH DECLARATIONS AND RESUMES FOR THE CA3 BACKUP GENERATING FACILITY SMALL POWER PLANT EXEMPTION PROCEEDING (21-SPPE-01)

In accordance with the *Committee Scheduling Order* filed on October 6, 2021 (TN 239992), the California Energy Commission staff hereby submits its Opening Testimony. Staff's testimony consists of the Final Environmental Impact Report (EIR) Part 1 (TN 242451), Part 2 (TN 242452), Part 3 (TN 242453), and Part 4 (TN 242454), which were docketed on March 24, 2022. Staff's testimony also includes the Mitigation Monitoring and Reporting Program, included in Part 4 of the Final EIR, as well as staff's declarations and resumes supporting this testimony (attached).

DECLARATION OF
Abdel-Karim Abulaban, Ph.D., P.E.

I, Abdel-Karim Abulaban, declare as follows:

1. I am employed by the California Energy Commission as an Associate Civil Engineer.

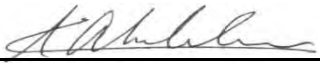
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Hydrology-Water Quality, Utilities and Service Systems, and Wildfire sections** for the **CA3 Backup Generating Facility** based on my independent analysis of the Application for Small Power Plant Exemption and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 4/8/2022 Signed: 

At: Sacramento, California

AbdelKarim Abulaban

Education

Ph.D. Civil Engineering,University of Minnesota (*Hydrology and Water Resources)*.
Thesis title: Modeling the transport of sorbing chemicals in heterogeneous porous media.
B.S. and M.S. Civil Engineering, Yarmouk University, Jordan *(Water Resources).*

Registration:

Registered Professional Engineer (Civil) with the stae of California (Lic. No. 76030)

Employment

June 2010-Present: Associate Civil Engineer

CA Energy Commission, Sacramento, CA.

Reviewing and evaluating the construction, operation, and maintenance of energy facilities and power plants for water supply, wastewater quality and disposal, and stormwater management to assess the potential impacts to human health and the environment. Also, reviewing sensitive project sites that may have issues involoving flooding and stormwater management, discharges to impaired water bodies, depleted groundwater and surface water resources, and wastewater management and disposal methods, in addition to responding to soils or water resources issues that may arise regarding power plant operations This work includes conducting investigations to determine if any violations of the program's regulations, the Energy Commission's conditions of certification, or the CA Environmental Quality Act (CEQA) have taken place.

Dec. 2006-May 2010: **Water Resources Engineer**
CA Dept. of Water Resources, Fresno, CA.
In charge of hydraulic modeling and sediment transport for the San Joaquin River restoration project. Perform 1- and 2-D hydraulic analysis to support restoration of the San Joaquin River for the purpose of improving spawning/rearing habitat, enhancing floodplain connectivity, and improving riparian corridor.

Dec. 2001-Dec. 2006: **Retained Hydrologist**
J.L. Nieber & Associates, Hydrologic Consultants, Lindstrom, Minnesota, USA.
Hydrologic analysis and assessment of environmental impact of comtamination incidents on ground water resources, as well as design of remediation plans. Contaminants analyzed included hydro-carbons, chlorinated solvents, as well as agrichemicals.

Dec. 90 – Dec. 93: **Retained Hydrologist**.
BAUMGARTNER ENVIRONICS, INC, Olivia, Minnesota, USA.
Assessment of the environmental impact of contamination incidents on groundwater resources, and design of action plans.

Sep. 2003-Sep. 2005:
Assistant Professor, Hashemite University, Zarqa, Jordan.
Taught general and spcialized courses in the civil engineering department: Water and Wastewater Treatment Mehods; Wastewater Engineering; Statics; Engineering Drawing; Visual Communication. rs

June – August, 96, 97, 98, 2000:
Army High Performance Computing Research Center, Minneapolis, Minnesota.
Taught and helped teach the Summer Insitute course in hydrology and transport in porous media. The Summer Institute is a summer course offered to promising upper class students from member institutions. The ground water flow and transport group normally has about 4 students from different backgrounds. I was involved in training the students to use a particle tracking solute transport code which I developed, and also to use the DoD's Ground Water Modeling System, GMS; however, in the summer of 2000 I was in charge of the whole group consisting of four students.

August, 1997:
University of Minnesota, Minneapolis, Minnesota, USA.
Taught a short course on the application of the Department of Defense's Ground Water Modeling System, GMS, offered by the American Society of Agricultural Engineers and attended by about 40

professionals and academicians from around the United States as well as several countries around the world.

Research

i- Ground Water Flow and Transport:

Oct. 93-Mar. 2002: **Research Associate**

Biosystems and Agricultural Engineering Department, University of Minnesota, USA.

Modeling single and multi-phase flow and multicomponent transport in variably saturated heterogeneous porous media with chemical transformation such as adsorption and biodegradation. A computer model based on the Random Walk Particle Tracking technique was successfully developed and applied for this purpose. Because of the large memory and CPU time requirements, the model was developed and implemented using on a **supercomputer platform** through several grants from the Minnesota Supercomputer Center. This work was continued in a joint effort between the Biosystems and Agricultural Engineering Department and the Army High Performance Computing Research Center through a grant from the US Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.

I also was involved in the modeling of flow and transport through preferential flow paths caused by unstable wetting fronts. Sample results for a simple scenario can be found on the World Wide Web by visiting http://www.arc.umn.edu/education/SummerInst/1996/

ii- Surface Water Hydrology:

Oct. 93- Jun. 95: **Post-Doctorate Associate**

Department of Biosystems and Agricultural Engineering, University of Minnesota, Saint Paul, Minnesota, USA.

Analysis of the impact of and best management practices of surface tile inlets on the water quality in the Minnesota River basin.

Sep. 84 - Jun. 87: **Research Assistant**

Civil Engineering Dept., Yarmouk University, Irbid, Jordan.

Development of Intensity-Duration-Frequency (IDF) Curves for design rain storms in Irbid Region. This research was supported by a grant from Yarmouk University.

Sample Publications

Hamasha, S.; Abu Allaban, M; **Abulaban A.** (2008). Modeling Atmospheric Turbidity at Zarqa Area Using Meteorological Data. JJP, 1:(1), 53-60.

Munjed Al-Sharif, J. Abu Ashour, **A. Abulaban**, and S. Al-Shar'a, (2007), Effect of Soil-Water Seperation Technique on the Estimation of Bacterial Adsorption onto Soil, Jordan Journal of Civil Engineering, Vol.(1), No. 2. pp. 295-302.

Peters, J.F., Howington, S.E., Maier, R.S., ***Abulaban, A***., and Nieber, J.L (2002). *Imbedding velocity autocorrelation into simulators for constituent transport through porous media*. Computational Methods in Water Resources: Proceedings of the Xivth International Conference on Computational Methods in Water ResourceProceedings, Delft, The Netherlands, pp.405-412.

Abulaban, A. and J.L. Nieber (2000). *Modeling plume behavior of non-linearly sorbing solutes in saturated heterogeneous porous media*. *Advances in Water Resources,* **23**, pp. 893-905.

Abulaban, A., J.L. Nieber, and D. Misra (1998). *Modeling plume behavior of non-linearly sorbing solutes in saturated homogeneous porous media*. *Advances in Water Resources,* **21** (6) pp. 487-498.

Nguyen, H.V., J.L. Nieber, and **A. Abulaban** (1998). *An improved method to model gravity-driven unstable flow in porous media*. International Workshop 'Soil Water Repellency: Origins, Assessment, Occurrence, Consequences, Modeling, and Amelioration', Wageningen, The Netherlands, September 2-4, 1998.

DECLARATION OF
Eileen Allen

I, Eileen Allen, declare as follows:

1. I am employed by the California Energy Commission as a consultant.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared and/or supervised preparation of the staff testimony on the **Recreation, Transportation, and Public Services Sections** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 4/7/22 Signed: Eileen Allen

At: Sacramento, California

Eileen Allen

ENERGY EXPERT

PROFILE: Ms. Allen has 35 years of professional experience focused on the environmental impacts of energy facilities. Her California Energy Commission experience includes working as an Advisor to the Energy Commissioners, Policy Advisor to the Commission Chair, supervising preparation of California Environmental Quality Act (CEQA) documents for large thermal power plant licensing proceedings, and serving as an Office Manager and Project Manager.

EDUCATION:

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

PROFESSIONAL EXPERIENCE

Consultant - Principal Energy Planner

California Energy Commission 2021-22

Supervising preparation of environmental impact analyses for the proposed CA3 Backup Generating Facility.

OTHER REPRESENTATIVE EXPERIENCE

- California Energy Commission (1987-2018)
  - Retired Annuitant (in 2018) regarding natural gas power plant retirement analyses
  - Energy Commissioners' Advisor for Facility Siting regarding environmental & engineering impacts of large, thermal electric power plants, including waste discharge requirements & storm water management
  - 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 underground injection well consideration; 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
  - Project management
- 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 re Important Farmland Maps to local elected officials; conducting public workshops

DECLARATION OF
J. Brewster Birdsall

I, James Brewster Birdsall, declare as follows:

1. I am employed by Aspen Environmental Group as a contractor for the California Energy Commission.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Air Quality and Greenhouse Gas Emissions** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: *April 6, 2022* Signed: *J. Brewster Birdsall*

At: San Francisco, California

Brewster Birdsall

SENIOR ASSOCIATE, AIR QUALITY AND ENGINEERING

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.

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.

- San Jose City Data Center (2019-ongoing). Air quality and GHG assessment of standby backup generators.
- Laurelwood Data Center (2019). Air quality and GHG assessment of standby backup generators.

TECHNICAL STUDIES

California Energy Commission, 2002-2018

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

- 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.

CEQA DOCUMENTS AND ENERGY STUDIES

California Public Utilities Commission, 2002-present

Mr. Birdsall authors environmental documents and energy studies.

- Ivanpah-Control Project (2019-ongoing). Reviewed the project description and application materials for technical deficiencies and impacts to energy and environmental resources.
- Eldorado-Lugo-Mohave Series Capacitor Project (2018-2019). Assessed the project description for direct and indirect effects to system and energy resources. Conducted the review of impacts to air quality, GHG, transportation, noise, and utilities systems.
- West of Devers Upgrade (2013-2016). Coordinator for transmission planning and engineering alternatives in the environmental review to access desert-area generation. Directed the independent power flow modeling work and structural design review with the goal of identifying feasible alternatives to partially rebuild the corridor, develop the project in longer term phases, or provide a plan of service to replace the project altogether. Assessed noise, air quality, and GHG impacts.
- Embarcadero-Potrero 230 kV Transmission Project (2012-2014). Deputy Project Manager and coordinator of transmission planning and engineering alternatives in the environmental review of this underground and submarine transmission line in the San Francisco Bay for improving reliability in downtown San Francisco. Conducted the review of health effects, noise, air quality, and GHG.
- Long-Term Procurement Plan Guidelines and Renewable Portfolio Standard Implementation (2008-2011). Developed timelines of permitting and identified barriers to implementing the 33 percent Renewable Portfolio Standard (RPS), including ranking and screening of available energy resources. Surveyed historical transmission build-out timelines, based on experiences of the California Independent System Operator (CAISO), CPUC, and other cooperating agencies. Mapped and scored renewable resources from the Renewable Energy Transmission Initiative (RETI) process and CPUC Energy Division database for environmental concern and permitting risk.

DIABLO CANYON POWER PLANT DECOMMISSIONING PROJECT

San Luis Obispo County, 2021-present

Mr. Birdsall provides technical analysis of air quality, public health, energy, and GHG emissions issues for the County in its oversight of nuclear power plant decommissioning, deconstruction, and disposal.

CITY OF SANTA CLARA

City of Santa Clara/Silicon Valley Power (SVP), 2019-present

Under Aspen's on-call environmental services contract, Mr. Birdsall prepares CEQA documentation for capital improvement projects including transmission system upgrades in the City of Santa Clara. In addition, he is authoring the environmental review for new regulations in the City related to distributed energy resources and parallel generation.

REGIONAL RENEWABLE ENERGY RESOURCE PLANNING AND TRANSMISSION STUDIES

Various Clients, 2015-2018

Mr. Birdsall actively works with the energy policy issues that affect electric utilities, transmission, and generation, including analyses for landscape-scale energy resource planning.

PROFESSIONAL AFFILIATIONS AND AWARDS

- Panelist, Offsets for Environmental Mitigation, Navigating the American Carbon World 2014
- Professional Engineer (Mechanical, California #32565)
- Qualified Environmental Professional, Institute of Professional Environmental Practice (#03030005)
- 2001 Outstanding Performance Award presented by the California Energy Commission
- Air and Waste Management Association since 1994

DECLARATION OF
Huei-An (Ann) Chu

I, Huei-An (Ann) Chu, declare as follows:

1. I am employed by the California Energy Commission as an Air Resources Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Air Quality** and **Environmental Justice** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 2022/04/06 Signed: Huei-An Chu

At: Sacramento, California

Huei-An (Ann) Chu

715 P Street, MS-46, Sacramento, CA 95814
Phone: 916-237-2547, Email: Ann.Chu@energy.ca.gov
Citizenship Status: U.S. Citizen

EDUCATION

PhD, Environmental Sciences and Engineering, 05/2006
School of Public Health, University of North Carolina at Chapel Hill
Area of Specialization: Environmental Risk Assessment, Environmental Management and Policy, Risk-Based Regulation, Biostatistics, Environmental Epidemiology

MEM, Environmental Management, 05/2000
School of Forestry and Environmental Studies, Yale University, New Haven, CT

MS, Environmental Engineering, 06/1998
National Taiwan University, Taipei, Taiwan

BA, Geography, with honors, 06/1996
National Taiwan University, Taipei, Taiwan

SKILLS

Language: Fluent in Chinese and English.

Computer software and programming skills: Hotspot Analysis Reporting Program (HARP), SAS, Stata, Minitab, ArcGIS, Stella, Crystal Ball, ISC, Microsoft Excel, PowerPoint, Word.

WORK EXPERIENCE

Air Resources Engineer, California Energy Commission, 1/12/2012 - Present

- Independently performs responsible, varied analyses assessing impacts from thermal power plants 50 megawatts and larger and the plants related facilities such as emergency engines and transmission lines, etc.
- Task scopes include public health impacts and transmission line safety and nuisance.
- Model air quality and public health impacts of stationary sources using HARP (Hot Spot Analysis and Reporting Program).
- Identify air quality and public health impacts of stationary sources and measures to mitigate these impacts following California Environmental Quality Act and regulations of US EPA (including the National Environmental Policy Act), ARB, and the Districts.
- Identify safety issues and nuisance impacts of transmission lines and measures to mitigate these impacts following guidelines of California Public Utilities Commission (CPUC) and Federal Aviation Administration (FAA).
- Collect, analyze, and evaluate data on the effects of air pollutants and power plant emissions on human health, and the environment.
- Ensure conditions of certification are met and recommending enforcement actions for violations.

Research Associate, Taiwan Development Institute, 10/01/2010 – 12/31/2011

- Provided professional consultation for the environmental risk assessment of Taiwan's techno-industrial development initiatives
- Reviewed the environmental risk assessment reports of Taiwan's techno-industrial development initiatives
- Presented in various distinguished lecturer series about environmental risk assessment

Consultant, Chu Consulting, 08/2007 - 07/2010

- Conducted a cumulative risk assessment to evaluate the risk associated with the emissions of VOCs from a petrochemical plants in southern Taiwan
- Used EPA's ISC3 model (based on Gaussian dispersion model) to simulate the dispersion and deposition of VOCs from this petrochemical plant to the neighboring areas, then used ArcGIS to spatially combine the population data and VOC simulation data (and further calculated risks)
- Built a framework of risk-based decision making to set the emission levels of VOCs to reduce people's exposure and the risk of experiencing health problems
- Presented in conference: SRA 2007
- Awarded: CSU-Chico BBS Faculty Travel Funds (2007)

Environmental Justice Intern, Clean Water for North Carolina (CWFNC), Summer, 2005

- Reviewed and critiqued key state environmental policies and the federal EPA Public Participation Policy.
- Interviewed impacted communities, member organizations of the NC Environmental Justice Network, state policy officials about how those policies are actually implemented.
- Wrote a report about the survey and review of environmental justice needs for key state policies.
- Report Publication: "Achieving Environmental Justice in North Carolina Public Participation Policy" (Aug, 2005).

Volunteer, New Haven Recycles and Yale Recycling, 08/1998 – 05/2000

- Promoted recycling and conservation
- Checked trash cans (chosen randomly) and recycling bins at each entryway of residential college, then gave grades.

Volunteer, Urban Resource Initiative (URI), Summer, 1998

- Planted trees for local community of New Haven for a better and sustainable environment

RESEARCH EXPERIENCE

Postdoctoral Research

Department of Public Health Sciences, University of California, Davis, 07/01/2010 – 09/30/2012
Research advisor: Dr. Deborah H. Bennett and Dr. Irva Hertz-Picciotto

- Work on two projects: NIEHS-funded ***Childhood Autism Risks from Genetics and Environment (CHARGE)*** and EPA-funded ***Study of Use of Products and Exposure Related Behavior* (*SUPERB)***.
- Perform statistical and quantitative analyses with SAS to analyze collected house dust data and children's urine concentrations of metabolites.
- Conduct exposure assessment to investigate if pesticides, flame retardants, and phthalates are risk factors for children autism.
- Conduct exposure assessment to explore the relationships between children's exposure to phthalate, benzophenone-3 (oxybenzone), triclosan, and parabens, and the use of personal care products.
- Produce scholarly peer-reviewed publications of methodology and findings, and write the final reports of both projects.

Carolina Environmental Program, University of North Carolina at Chapel Hill, 01/01/2006 – 12/31/2006
Research advisor: Dr. Douglas J. Crawford-Brown

- Applied a framework of risk-based decision-making to perchlorate in drinking water. (Awarded: SRA Annual Meeting Travel Award 2006)
- Conducted a material and energy flow analysis (MEFA) to quantify the overall environmental impact of Bank of America operations, and quantitatively analyze the strategies BOA might adopt to reduce these impacts and achieve sustainability. (Report Publication: "Environmental Footprint Assessment")

Doctoral Research, 08/2000-12/2005

Department of Environmental Sciences and Engineering, School of Public Health, University of North Carolina at Chapel Hill
Research advisor: Dr. Douglas J. Crawford-Brown

- Dissertation topic: "**A framework of Risk-Based Decision Making by Characterizing Variability and Uncertainty Probabilistically: Using Arsenic in Drinking Water as an Example**".
- Conducted risk assessment for arsenic in drinking water.
- Conducted theoretical analysis on the variability and uncertainty issues of risk assessment.
- Conducted a meta-analysis to improve dose-response assessment.
- Conducted analytical and numerical analysis to build a new framework of risk-based decision-making which can be applied coherently across the regulation decisions for different contaminants.
- Presented in conferences: APPAM (2004), SRA (2004, 2005 and 2006), DESE Seminar (2005), CEP Symposium on Safe Drinking Water (2006).
- Awarded: SRA Annual Meeting Student Travel Award (2004 & 2005), UNC-CH Graduate School Travel Grants (2004), UCIS Doctoral Research Travel Awards (2002).

Master's Research

School of Forestry and Environmental Studies, Yale University, 08/1999 - 06/2000
Research advisor: Dr. Xuhui Lee

- Master's project: "**Forest Stand Dynamics and Carbon Cycle**".
- Research project: "Monitoring Forest CO_2 Uptaking"
- Used remote sensing (ERMapper) to investigate the role of forest in the uptake of CO_2.
- Awarded from Teresa Heinz Scholars for Environmental Research Program (2000) and Klemme Award (1999).

Graduate Institute of Environmental Engineering, National Taiwan University, 06/1996 - 06/1998
Research advisor: Dr. Shang-Lien Loh

- Master's thesis: "**The Loads of Air Pollutants from Urban Areas on a Neighboring Dam and its Water Quality**"
- Research Projects: "Research on Air Pollutant Deposition in Urban Areas" and "the Fate and Flow of Recyclable Materials"
- Used Gaussian's Dispersion model (ISC3) to investigate the loads of air pollutants on dam water.

TEACHING EXPERIENCE

Lecturer

Department of Environmental Studies, California State University at Sacramento

- Environmental Politics and Policy, Fall 2011

Department of Geological & Environmental Science, California State University at Chico

- Environmental Risk Assessment, Spring 2009 & 2010
- Applied Ecology, Spring 2008
- Pollution Ecology, Fall, 2007

Department of Geography & Planning, California State University at Chico

- Seminar in Applied Geography & Planning – Environmental Regulation and Policy, Fall, 2007

Department of Forestry and Environmental Resources, North Carolina State University

- Environmental Regulation, Fall, 2006

Teaching Assistant

Department of Environmental Sciences and Engineering, UNC-Chapel Hill
- Environmental Risk Assessment, Spring, 2002
- Introduction to Environmental Science, Fall, 2001
- Analysis and Solution of Environmental Problems, Fall, 2001

Lab Instructor

Department of Environmental Sciences and Engineering, UNC-Chapel Hill
- Biology for Environmental Science, Fall, 2000

Graduate Institute of Environmental Engineering, National Taiwan University
- Water Quality Analysis, Fall, 1997

AWARDS and HONORS

- CSU-Chico BBS Faculty Travel Funds, 2007
- Member of Society of Risk Analysis (SRA), 2006-2008
- SRA Annual Meeting Student Travel Award, 2004-2006
- UNC-CH Graduate School Travel Grants, 2004
- Member of Association for Public Policy Analysis and Management (APPAM), 2004-2005
- UCIS Doctoral Research Travel Awards, 2002
- Graduate Student Teaching and Research Assistantships, 2000-2005
- Teresa Heinz Scholars for Environmental Research Program, 2000
- Yale Forestry & Environmental Studies, Klemme Award, 1999

DECLARATION OF
Ann Crisp

I, Ann Crisp, declare as follows:

1. I am employed by the California Energy Commission as a Planner II.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Biological Resouces** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 4/6/2022 Signed: Ann Crisp

At: Sacramento, California

CALIFORNIA ENERGY COMMISSION

ANN CRISP
STAFF BIOLOGIST /PLANNER II

Education, Certification & Associations

- Associate of Arts Degree, Natural Science, College of Marin (1998)
- Bachelor of Science Degree, Wildlife, Fish and Conservation Biology, University of California, Davis (2004)

Experience

California Energy Commission (CEC) – from 3/2010 to Present

Planner II – Staff Biologist

As a staff biologist with the Energy Commission, Ms. Crisp analyzes the biological resource components of energy facilities siting applications to assess resource impacts, develop mitigation, and to evaluate compliance with applicable local, state, and federal laws, ordinances, regulations, and standards. This requires working closely with biological resource protection and management agencies, subject matter experts, and Energy Commission consultants as well as with other Energy Commission staff to ensure the best available information is included in staff analyses.

Robertson-Bryan, Inc. – from 11/2006 to 3/2010

Staff Biologist

Ms. Crisp's duties with Robertson-Bryan, Inc. included development of technical study reports and presentations based on the conclusions of field studies for the Middle Fork American River Project (MFP) Integrated Licensing Process for the Placer County Water Agency. She conducted field studies in preparation of the biological resources component of the MFP and the Big Creek System Alternative Licensing Process for Southern California Edison Company (SCE) including wildlife reconnaissance surveys, protocol-level wildlife surveys (including bald eagle wintering and nesting surveys and California red-legged frog surveys) and botanical surveys (including special-status plant species, noxious weeds, and plants of cultural concern for Native Americans). Ms. Crisp prepared documents supporting various management plans as part of the Big Creek No. 4 Traditional Licensing Process for SCE, including yearly monitoring reports for the Sediment Management Plan, Noxious Weed Management Plan, and Valley Elderberry Longhorn Beetle Management Plan. She also prepared and reviewed technical reports and California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) chapters on terrestrial resources.

1516 Ninth Street, MS 40 ◆ Sacramento, CA 95814 ◆ (916) 651-3776 ◆ ann.crisp@energy.ca.gov

Pacific States Marine Fisheries Commission/ California Department of Fish and Game – from 3/2006 to 11/2006

Research Technician

While working with the California Department of Fish and Game through a partnership with the Pacific States Marine Fisheries Commission, Ms. Crisp conducted various focused wildlife surveys including reptile and amphibian cover board surveys, small mammal mark-recapture surveys, burrowing owl nest surveys, and California tiger salamander larval surveys. She collaborated on design and execution vegetation sampling protocol at multiple survey areas.

California Department of Fish and Game – from 11/2005 to 1/2006

Scientific Aide

Ms. Crisp led tours of the Nimbus Fish Hatchery to provide information on the function of the hatchery and fish biology to school groups and the general public.

Humboldt State Foundation / California Department of Fish and Game – from 3/2005 to 10/2005

Wildlife Research Assistant

While working with the California Department of Fish and Game (CDFG) through a partnership with the Humboldt State Foundation, Ms. Crisp conducted field-based vegetation sampling to classify vegetation types/wildlife habitats on multiple CDFG Wildlife Areas and Ecological Reserves. She was responsible for data management and preparation for inclusion in a statewide database. Ms. Crisp also conducted focused wildlife surveys including reptile and amphibian cover board surveys, small mammal live-trapping surveys, and nocturnal mammal spotlight surveys.

Oregon State University – from 6/2004 to 9/2004

Research Technician

Ms. Crisp conducted bat surveys and vegetation inventories and assessments on a bat survey crew in western Oregon. This included collecting data on bat activity using Anabat II detectors, capturing bats using mist nets and H-nets and collecting biological samples and morphological data and vegetation sampling.

Sacramento Regional County Sanitation District – Bufferlands – from 7/2003 to 3/2004

Senior Student Intern

Ms. Crisp assisted with various habitat restoration and management projects within the 2,650-acres surrounding the Sacramento Regional Wastewater Treatment Plant. She conducted waterfowl and shorebird surveys as well as sensitive species surveys. Other duties included landscape maintenance and water quality monitoring.

DECLARATION OF
Brett Fooks

I, Brett Fooks, declare as follows:

1. I am employed by the California Energy Commission as a Senior Mechanical Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I supervised the staff testimony on **Hazards and Hazardous Materials** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 04/08/2022 Signed: Brett Fooks

At: Sacramento, California

BRETT FOOKS, P.E.

MECHANICAL ENGINEER

PROFESSIONAL EXPERIENCE

California Energy Commission - STEP **Sacramento, CA** **2/2014 - Present**

The Commission ensures that energy facilities (power plants) are permitted in an acceptable manner. The STEP division prepares environmental documentation for the Commission as required by the California Environmental Quality Act (CEQA).

SENIOR MECHANICAL ENGINEER

Provide independent engineering analysis for various technical areas with an emphasis on hazardous materials management, worker safety, & fire protection.

- Review, analyze and prepare engineering analysis for hazardous materials management, fire protection, and worker safety for gas-fired power plants.
- Provide written and oral expert witness testimony at commission hearings.
- Conduct power plant inspections during construction and operational phases.
- Investigate accident, fire, and hazardous materials incidents at licensed power plants.

Capital Engineering Consultants, Inc. **Rancho Cordova, CA** **6/2004 – 2/2014**

A leader in mechanical engineering design in Northern California since 1947 specializing in areas including K-12 Education, Higher Education, Civic and Justice, and Healthcare.

SENIOR ENGINEER, ASSOCIATE

Manage the design, project specification, calculations and cost estimations for new and renovated construction projects. Oversee and supervise the daily workload, mentoring, and quality control for an assigned junior engineer.

- Plan and monitor the workload of projects, while preparing and taking responsibility for the concept of and preliminary engineering solutions for the detailed design phase.
- Implement the detailed design engineering of HVAC systems; code review, heating and cooling load calculations, air-flow requirements, ductwork sizing and layout, piping sizing and layout, equipment selection, and system controls with an emphasis on healthcare facilities.
- Prepare and deliver calculations for Title 24 building compliance.
- Prepare and deliver calculations and documents for project LEED certification.

Select Accomplishments

- Assisted in the implementation and teaching of new 3-D modeling software, CAD-MECH, to team members for the Sutter Health Eden Medical Center.
- Worked with co-workers to create and implement standards for plumbing calculations firm wide leading to an increased efficiency.

EDUCATION

STATE OF CALIFORNIA ~ LICENSED PROFESSIONAL ENGINEER
UC DAVIS EXTENSION – WORKPLACE HEALTH & SAFETY CERTIFICATE (2016)

BACHELOR OF SCIENCE ~ MECHANICAL ENGINEERING (2004)
California Polytechnic State University, San Luis Obispo

Computer Literacy: Proficient in the use of various software applications including Microsoft Office (Word, Excel, PowerPoint, Outlook) AutoCAD 2012/2013, Revit 2013/2014, Visio, NavisWorks, and ProjectWise.

DECLARATION OF
Mark R. Hamblin

I, Mark R. Hamblin, declare as follows:

1. I am employed by the California Energy Commission as a Planner II.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Aesthetics** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: April 6, 2022 Signed: Mark R. Hamblin

At: Sacramento, California

CALIFORNIA ENERGY COMMISSION

MARK R. HAMBLIN
PLANNER II

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.

Experience

California Energy Commission
Planner II — November 2000 to present
I identify, describe, and analyze complex land use and planning, and/or aesthetics related issues regarding the siting of a thermal power plant and transmission facilities reviewing applicable federal, state, local laws, ordinances, regulations and standards (California Environmental Quality Act [CEQA] and Guidelines, California Planning, Zoning and Development Laws, county/city general plan and zoning, etc.), and the California Energy Commission siting regulations in a written analysis and/or testimony; participate in public workshops, present sworn testimony during evidentiary hearing(s) before Commissioners, when requested.

Yolo County Planning and Public Works Department
Associate Planner — June 1992 to October 2000
I advised and assisted individuals in the processing of land use and planning proposals (general plan amendments, conditional use permits, subdivision maps, etc.). I reviewed the proposal for consistency and compliance with state environmental, planning and zoning law (CEQA Guidelines, Subdivision Map Act, Williamson Act Program, etc.), the county General Plan and the county government code for presentation in a staff report before the planning commission and/or board of supervisors. I served as a county representative/liaison to citizens' and interagency committees (county airport advisory committee, county habitat conservation plan steering committee, and community general plan citizen advisory committee[s], etc.). I drafted zoning ordinances. I hired and supervised consultants. I performed contract management in the preparation of land use and environmental assessment documents (e.g., general plan amendment, environmental impact report). I served as a county zoning administrator deciding on minor land use proposals. I conducted zone code enforcement with cooperation from the district attorney's office. I reviewed building plans for compliance with county codes and issuance of the permit. I answered questions from individuals who visited the public counter and over the telephone regarding land use and development in the county.

715 P Street, MS 40◆Sacramento, CA 95814 ◆ (916) 931-9769 ◆ mark.hamblin@energy.ca.gov

DECLARATION OF
Mark Hesters

I, Mark Hesters, declare as follows:

1. I am employed by the California Energy Commission as a Senior Electrical Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **portions of the Project Description and Appendix B** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: April 6, 2022 Signed: Mark Hesters

At: Sacramento, California

Mark Hesters

916-931-8942
mark.hesters@energy.ca.gov

Qualifications

- Analyzed the reliability impacts of electric power plants for twenty-three years.
- As an expert witness, produced written and oral testimony in numerous California Energy Commission proceedings on power plant licensing.
- Expertise in power flow models (GE PSLF and PowerWorld). Microsoft word-processing, spreadsheet and database programs.
- Contributing author to many California Energy Commission reports.
- Represented the Energy Commission in the development of electric reliability and planning standards for California.

Experience

Senior Electrical Engineer

2005-Present California Energy Commission, Sacramento, CA

- Program manager of the transmission system engineering analysis for new generator Applications of Certification.
- Lead the development of transmission data collection regulations.
- Overhauled the transmission data adequacy regulations for the Energy Commission's power plant certification process.
- Participated in the analysis of regional transmission projects.
- Technical lead for Commission in regional planning groups.

Associate Electrical Engineer

1998–2005 California Energy Commission, Sacramento, CA

- Lead transmission systems analyst for power plant licensing under 12-month, 6-month and 21-day licensing processes.
- Provided expert witness testimony on the potential transmission impacts of new power plants in California Energy Commission licensing hearings.
- Authored chapters for California Energy Commission staff reports on regional transmission issues.
- Studied the economics of transmission projects using electricity production simulation tools.
- Analyzed transmission systems using the GE PSLF and PowerWorld load flow models.
- Collected and evaluated transmission data for California and the Western United States

Electric Generation Systems Specialist

1990–1998 California Energy Commission, Sacramento, CA

- Lead generation planner for southern California utilities.
- Analyzed electric generation systems using complex simulation tools.
- Provided analysis on the impact of resource plans on air quality and electricity costs for California Energy Commission reports.
- Developed modeling characteristics for emerging technologies.
- Evaluated resource plans.

Education

1985–1989 University of California at Davis Davis, CA

- B.S., Environmental Policy Analysis and Planning

DECLARATION OF
Joseph Hughes

I, Joseph Hughes, declare as follows:

1. I am employed by the California Energy Commission as an Air Resources Supervisor.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I supervised preparation of the staff testimony on **Air Quality** and **Greenhouse Gas** sections for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: April 11, 2022 Signed: /s/ Joseph Hughes

At: Sacramento, California

Joseph Hughes, P.E.

Education

California State University, Sacramento, 2003-2008
Sacramento, Ca
***Bachelor of Science, Mechanical Engineering Technology**, May 2008*

Licensures

Professional Engineer, Mechanical (California License No. M 38221)

Experience

California Energy Commission, 2020-Present
Sacramento, Ca

Air Resources Supervisor I
Air Resources Supervisor in the Engineering Office of the Siting, Transmission, and Environment Protection Division, responsible for the Air Quality, Public Health and Transmission Line Safety and Nuisance unit. The Air Resources Supervisor is the first level to which administrative responsibilities are assigned. Staff in the unit are responsible for reviewing and understanding United States Environmental Protection Agency, California Air Resources Board, and regional air quality district public health and air quality regulations. Specific responsibilities include the following:

- Planning, directing, evaluating, and managing the work of air resources engineers and public health experts.
- Reviewing staff conducted scientific investigations and complex technical analysis, including air quality and public health impacts of stationary sources and methods to mitigate these impacts following California Environmental Quality Act and federal, state, and local regulations.
- Reviewing staff conducted analysis of transmission line and safety, nuisances and impacts on public health.
- Research new technology development; recommend and implement statewide planning and policy initiatives for the Energy Commission, as well as developing and evaluating proposed legislation.

California Department of Transportation, 2018-2020
Sacramento, Ca

Mechanical Engineer
Mechanical engineer in the Office of Electrical, Mechanical, Water & Wastewater responsible for performing difficult mechanical engineering design, specification preparation, estimating, and inspection work involved in the design, construction, and maintenance of storm drainage pumping plants and sewage lift stations, vehicular tunnels, movable bridges, roadside

rests, highway maintenance stations, toll plazas, truck weigh and inspection stations water well and water supply systems, solar heating, and other transportation-related facilities. Specific responsibilities include the following:

- Performing professional work such as designing and preparing plans, specifications and estimates for mechanical systems such as heating, ventilating, air conditioning, plumbing, water, sanitary, and mechanical equipment.
- Checking drawings and contractor's shop plans and lists of equipment.
- Testing completed work for compliance with contract documents and conducting construction and repair inspections.
- Assisting in maintenance inspections of pumping plants, water supply systems, movable bridges, safety roadside rest areas, truck weigh and inspection stations.

California Energy Commission, 2009-2018
Sacramento, Ca

Air Resources Engineer
Technical expert responsible for completing engineering and environmental analysis on thermal power plant project applications seeking a California Energy Commission license, or an amendment or project modification to an existing license, in addition to determining ongoing operational compliance for facilities operating under existing Energy Commission licenses. Specific responsibilities include the following:

- Independently perform responsible, varied analysis assessing environmental impacts of energy resource use and large electric power generation projects in California.
- Analyzing project applications to verify engineering data, conducting scientific investigations and completing complex technical analysis.
- Identifying air quality impacts of stationary sources through the use of complex dispersion modeling and measures to mitigate these impacts following California Environmental Quality Act (CEQA) and regulations of U.S. Environmental Protection Agency, California Air Resources Board, and local air pollution control districts.
- Managing ongoing engineering and environmental compliance for operational power plant facilities and recommending enforcement actions for violations.
- Researching new technologies and developing, recommending, and implementing statewide planning and policy initiatives for the Energy Commission and the Governor.
- Presenting complex technical staff reports and planning/policy recommendations at evidentiary hearings, business meetings,

committee meetings, publicly-noticed workshops, and meetings with project developers.
- Testifying as an expert witness at committee held evidentiary hearings.

Awards

2014 Superior Accomplishment Award – California Energy Commission

DECLARATION OF
Tatiana Inouye

I, Tatiana Inouye, declare as follows:

1. I am employed by the California Energy Commission as a consultant.

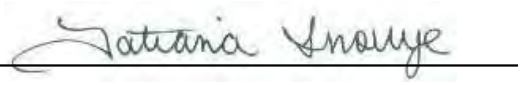
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Agriculture and Forestry Resources, Land Use and Planning, and Recreation Sections** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: April 6, 2022 Signed: 

At: Sacramento, California

Tatiana W. Inouye

ENVIRONMENTAL PLANNER- LAND USE AND PUBLIC POLICY

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). She specializes in impact analysis for land use and planning, 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

LIQUIFIED AIR ENERGY STORAGE PROJECT

Los Angeles Department of Water and Power, 2020

Aspen provided CEQA compliance support services to the Los Angeles Department of Water and Power (LADWP) for this long-duration energy storage system. The Liquified Air Energy 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.

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

California Energy Commission, 2019-present

Ms. Inouye provides 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 have 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.

ANGELA SOLAR PROJECT GENERATION-TIE MODIFICATION

SB Energy, 2022

Modifications were required to an approved 40-MW solar generation facility in Tulare County to accommodate an interconnection agreement with PG&E. In coordination with the County, Ms. Inouye prepared the Notice of Exemption and a supporting memorandum that summarized the technical documentation to support a CEQA Categorical Exemption for the project.

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 analyze 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.

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.

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.

BARREN-HASKELL LINE ONE PROJECT
Los Angeles Department of Water and Power, 2017-2018

Under contract to the Los Angeles Department of Water and Power, 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.

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.

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.

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.

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.

LAND USE ASSESSMENT FOR THE ALAMITOS ENERGY CENTER
California Energy Commission, 2016-2017

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.

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.

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.

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-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.

2005 UPDATE TO THE CALIFORNIA ENVIRONMENTAL PERFORMANCE REPORT (EPR)
California Energy Commission, 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.

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.

OUT-OF-STATE POWER GENERATION AND IMPORTS: WATER AND BIOLOGICAL RESOURCES

California Energy Commission, 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.

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.

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-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. Inouye prepared the Land Use analysis, the Alternatives chapter, and a summary of Other Required CEQA Topics for the project EIR.

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

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.

DESERT RENEWABLE ENERGY CONSERVATION PLAN (DRECP) IMPLEMENTATION SUPPORT

U.S. Bureau of Land Management, California Desert District, 2015-present

Since 2015, Aspen has provided ongoing support to the BLM for the implementation of the DRECP, which includes plan consolidation and the preparation of implementation materials. As part of the DRECP implementation, Ms. Inouye has assisted with incorporation of the BLM's applicable DRECP land use plan amendments (LUPA) into a comprehensive update of the following elements from the California Desert Conservation Area Plan: Recreation; Motorized Vehicles; Wild and Scenic Rivers; Grazing; and Geology, Energy, and Mineral Resources.

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 Bureau of Land Management, 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 is currently managing this project to assist the BLM in planning fuel management near the U.S.-Mexico border to reduce wildfire risk and to support future firefighting activities. Ms. Inouye prepared the Environmental Assessment with technical support and 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 is currently managing this project to assist 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. Ms. Inouye prepared the Environmental Assessment with technical support and 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 is currently managing this project to assist 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. Ms. Inouye prepared the Environmental Assessment with technical support and 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 complete 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

- 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

ADDITIONAL TRAINING AND COURSES

- EJScreen: Environmental Justice Screening and Mapping Tool. U.S. Environmental Protection Agency. April 2022.
- 2021 CEQA Year in Review. Latham & Watkins, LLP. February 2022.
- Climate and Energy: the Biden-Harris Administration and 117th Congress. Association of Women in Water, Energy and Environment. February 2021
- Environmental Justice: Assessing Social and Health Impacts on Vulnerable Populations. National Association of Environmental Professionals. February 2021.
- 2020 CEQA Year in Review. Latham & Watkins, LLP. February 2021.
- Association of Environmental Professionals 2020 California State Conference. November 2020.
  - CEQA's Role in California's Wildfire Crisis: Notes from the Fireline
  - Legislative Update
  - CEQA Strategies for Mitigating Greenhouse Gas Emissions: Here, There, and Everywhere
  - Everything You Say Can and Will Be Held Against You: CEQA Administrative Records' Evolving Landscape
  - Bringing CEQANet into the 21st Century
- Applying the New CEQ NEPA Regulations. National Association of Environmental Professionals. September 2020.
- Meaningful Engagement for Environmental Justice without Public Meetings. MetroQuest. August 2020
- U.S. Forest Service, Advanced Effects Analysis Training: How to “right-size” document preparation (specialist reports, NEPA documents, etc.). Conducted by USDA Forest Service, Region 5 (Pacific Southwest Region). July 25, 2019
- Land Use Law and Planning Conference. UCLA Extension. 2015 and 2017

DECLARATION OF
Andrea Koch

I, Andrea Koch, declare as follows:

1. I am employed by the California Energy Commission as an Energy Facility Siting Planner II.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Alternatives** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 7 April 2022 Signed: Andrea Koch

At: Sacramento, California

CALIFORNIA ENERGY COMMISSION

ANDREA KOCH
PLANNER II – ENERGY FACILITY SITING

Education, Certification & Associations

- Bachelor of Science Degree, Wildlife, Fish and Conservation Biology, University of California, Davis (2002)
- Master of City and Regional Planning, Cal Poly San Luis Obispo (2004)

Experience

California Energy Commission (CEC) – from 12/2009 to Present

Planner II – Energy Facility Siting

Review power plant applications for: transportation and land use impacts; alternatives; and compliance with applicable laws, ordinances, regulations, and standards. Coordinate with other staff and agencies to conduct environmental reviews. Write environmental analysis documents. Perform compliance oversight of power plants during construction and operation. Assist junior colleagues with environmental review.

City of Sacramento – from 6/2007 to 7/2009

Assistant Planner – Long-Range Planning

Performed long-range planning for the City of Sacramento. Coordinated review of the Draft 2030 General Plan, a comprehensive citywide land use plan. Prepared Ben Ali and Hagginwood neighborhood plans. Worked with City staff and community members to identify strategies for resolving neighborhood issues, such as infrastructure deficiencies. Reviewed 70 development applications, analyzing their consistency with City policy and providing written feedback to applicants.

County of Santa Cruz – from 6/2005 to 6/2007

Resource Planner II – Current Planning

Reviewed development permit applications to ensure their consistency with regulations for creeks, wetlands, grading, geologic hazards, erosion control, and sensitive plant and animal species. Wrote staff reports analyzing development proposals and providing recommendations to the Environmental Planning Division Manager. Performed an average of 5 weekly pre-construction meetings and final inspections at project sites to ensure that development was consistent with County regulations and required mitigations. Regularly assisted the public with resource planning questions, both in-person and over the phone.

County of Monterey – from 11/2004 to 6/2005

Assistant Planner – Current Planning

715 P Street, MS 40 ◆ Sacramento, CA 95814 ◆ andrea.koch@energy.ca.gov

Reviewed development permit applications for consistency with County regulations. Prepared and presented staff reports for development applications. Reports provided recommendations to the Zoning Administrator. Assisted the public with zoning questions, both in-person and over the phone.

DECLARATION OF
Ellen LeFevre

I, Ellen LeFevre, declare as follows:

1. I am employed by the California Energy Commission as a Planner II.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Mandatory Findings of Significance and Environmental Justice** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 4/8/22 Signed: Ellen LeFevre

At: Sacramento, California

CALIFORNIA ENERGY COMMISSION

Ellen LeFevre
Planner II

Education, Certification & Associations

Sacramento State
Degree: Bachelor of Science in Geology

UC Davis Extension
Land Use and Environmental Planning courses

Experience

California Energy Commission
Planner II – 2017 to present

- Prepare socioeconomic, land use, transportation, and environmental justice analyses for proposed and existing energy facility sites. Prepare final analyses for power plant applications in the form of expert technical testimony.
- Coordinate and work with federal, state, regional, and local governments regarding energy-related issues and to assure their input into the Commission power plant siting process.
- Evaluate projects in accordance with the Warren-Alqueist Act, California Environmental Quality Act (CEQA), California Energy Commission siting regulations, federal, state, and local laws, ordinances, regulations, and standards.
- Evaluate the licensee's compliance with conditions of certification for power plant facilities.

California Energy Commission
Planner I – 2015 to 2017

- Evaluate and analyze environmental and socioeconomic impacts of proposed energy facilities to ensure the requirements of the Warren-Alquist Act and California Environmental Quality Act are satisfied.

715 P Street, MS 40◆Sacramento, CA 95814 ◆ ellen.lefevre@energy.ca.gov

DECLARATION OF
Garry Maurath, PhD, P.G., C.Hg

I, Dr. Garry Maurath, declare as follows:

1. I am employed by the California Energy Commission as a Engineering Geologist.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Geology and Soils**, and **Mineral Resources** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 6 April 2022 Signed: Garry Maurath

At: Sacramento, California

Garry Maurath, Ph.D., P.G., CHG
Engineering Geologist

Experience Summary

Dr. Maurath has 45+ years of experience in the design, management, and execution of geologic, hydrogeologic, geotechnical, geophysical, geothermal, and environmental investigations. Dr. Maurath has conducted numerous licensing studies and performed feasibility studies, site assessments, and construction support for power plants, hazardous waste facilities, dams, canals, tunnels, levees, high-temperature geothermal projects, strategic fuel depots, solid waste landfills, hazardous, toxic and radioactive waste (HTRW) facilities, and both permanent and tactical military infrastructure. He has been responsible for examining and evaluating present and potential geology, paleontology, hydrogeology, and environmental conditions for the planning, design, construction, maintenance, and/or clean-up of numerous facilities. This work has been performed in urban, rural, and remote settings.

His work has included CERCLA and RCRA site remedial investigations and feasibility studies, surface geologic mapping in volcanic, metamorphic, and sedimentary terrain, surface geophysical surveys, borehole siting, drilling, logging, aquifer evaluation and testing, subsurface mine evaluations, mine sampling, construction dewatering, and mercury soil surveys. Dr. Maurath has been responsible for the execution of hazardous waste, low-level, and high-level radioactive waste projects within local, state and federal regulatory guidelines in US EPA regions III, V and IX. He has been involved in the preparation of NEPA and CEQA documentation, EISs, EIRs, NDs, MNDs, NPDES permits, and numerous license applications for the Federal Energy Regulatory Commission and the California Energy Commission.

Dr. Maurath has been a senior scientist and managed projects for small, medium, and large size companies; local, state, and federal government agencies; and non-profit organizations. He has worked with or for SMUD, PG&E, Calpine, LADWP, MWD, DWR, California Geological Survey, U.S. Army Corps of Engineers, and several DOE facilities/national laboratories, including Los Alamos, SANDIA, INEL, Savannah River, LBNL, JPL, Maxey Flats, and Hanford. His career has given him the opportunity to work in more than 26 states and 21 countries throughout the world.

Selected Project Experience [technical position/project name/location/lead agency or owner]

- Engineering Geologist, North of the Delta Off-stream Storage (NODOS) Project [Sites], US Bureau of Reclamation
- Engineering Geologist, North Umpqua River Project, Roseburg, Oregon
- Engineering Geologist, Piñon Pine Power Project, Sierra Pacific Power Company
- Engineering Geologist, Protected Fuel Depots Feasibility Study, Kuala Lumpur, Malaysia, Malaysian Ministry of Defense
- Engineering Geologist, Sanitary Landfill Siting Investigation, Fort Drum, New York, US Army Corps of Engineers
- Engineering Geologist, Sharp Army Depot Building S-4 Geohazard Assessment, US Army Corps of Engineers
- Engineering Geologist, Site Characterization of Superconducting Super-Collider (SSC) Sites, New York, NY UDC.
- Engineering Geologist, Union Valley Penstock Bifurcation Study, Upper American River, CA, SMUD
- Engineering Geologist, Upper Gorge Bypass Power Plant, Los Angeles Department of Water and Power
- Environmental Geologist, Gardena Sumps, Gardena, California, Atlantic Richfield
- Environmental Geologist, Low-level Radioactive Waste Disposal Site, Moorehead, KY, Maxey Flats Steering Committee.
- Environmental Geologist, Regulatory Compliance and Emergency Reporting Requirements, EG&G
- Field Coordinator, Feather River West Levee Rehabilitation Project, Sutter Butte Flood Control Agency and CA DWR
- Geochemist, Office of Nuclear Waste Isolation Licensing Project Manager, Columbus, OH, Battelle Memorial Institute
- Geologist, Geology and Soils, Supplemental CEQA Document - Slab Creek, SMUD.
- Geologist, Alternative Energy Feasibility Study, Ohiopyle State Park, Pennsylvania, PA Department of Natural Resources
- Geologist, Assessment of Geothermal and Precious Metal Prospects, Western United States, AMAX Exploration
- Geologist, Clearlake Hot Dry Rock Demonstration Project, Clearlake, CA, California Energy Commission
- Geologist, Hydropower Relicensing EIS's, California, Federal Energy Regulatory Commission
- Geologist, Paleoliquefaction Studies along the Eastern Seaboard of the United States, Nuclear Regulatory Commission
- Geologist, Public Hearings on the North Carolina Low-Level Waste Siting
- Geologist, Rocky Point Pumped Storage Project, Taylor Park, Colorado, Natural Energy Resource Company
- Geologist, Statewide Liquid Geothermal Resource Evaluation, California, California Energy Commission
- Geologist/Paleontologist/Mining/ Waste Management: Dr. Maurath has been the senior scientist responsible for the technical areas of geology and soils, paleontology, mineral resources, and waste management for the California Energy Commission for the past 6 years, He is responsible for preparing CEQA documentation for new power plant applications and compliance oversight for the 76 operating power plants that are under the jurisdiction of the California Energy Commission. This includes expert witness testimony during public hearings and representing the California Energy Commission as a technical expert for public outreach. A few of these projects are listed below.
- Geologist/Paleontologist, Alamitos Energy Center, California, California Energy Commission
- Geologist/Paleontologist, Blyth Solar Power Project, Blyth, California, California Energy Commission
- Geologist/Paleontologist, Carlsbad Energy Center Project, Carlsbad, California, California Energy Commission
- Geologist/Paleontologist, El Segundo Power Project, El Segundo, California, California Energy Commission
- Geologist/Paleontologist, Gateway Generating Station, Antioch, California, California Energy Commission
- Geologist/Paleontologist, Geysers (Lakeview; NCPA #2), Calistoga, California, California Energy Commission
- Geologist/Paleontologist, Humboldt Bay Project, Humboldt, California, California Energy Commission
- Geologist/Paleontologist, Huntington Beach Energy Center, Huntington Beach, California, California Energy Commission

- Geologist/Paleontologist, Ravenswood-Cooley Landing Reconductoring, Menlo Park and East Palo Alto, CPUC
- Geologist/Paleontologist, Stanton Energy Reliability Center, Stanton, California, California Energy Commission
- Hydrogeologist, Arco 5550 – City of Pomona Well-29, California, BP/Atlantic Richfield
- Hydrogeologist, ARCO Alegria/Gaviota Marine Terminal, Gaviota, California, BP/Atlantic Richfield
- Hydrogeologist, Assessment of 14 U.S. EPA Superfund Sites, CA, NJ, VA, OH, PA, and NY, US EPA
- Hydrogeologist, Auburn Tunnel Pumping Project, Auburn, California, City of Auburn
- Hydrogeologist, Defense Fuel Supply Point Ozol, Benicia, California, U.S. Army Corps of Engineers
- Hydrogeologist, Delta Habitat Conservation and Conveyance Project (DHCCP), CA DWR
- Hydrogeologist, Destruction of Wells N-11, N-18, & N-19, Sacramento, CA, Sacramento Suburban Water District
- Hydrogeologist, Diamond Valley Reservoir, Hemet, CA, Metropolitan Water District of Southern California
- Hydrogeologist, Geff Alternative Site Aquifer Characterization, Chicago, IL, State of Illinois
- Hydrogeologist, Groundwater Modeling of Alternative Low-level Waste Vault Designs, Savannah River, Westinghouse
- Hydrogeologist, Groundwater Monitoring in the Globe Mining District, Globe Arizona, Gila River Indian Community
- Hydrogeologist, Hydrogeologic Assessment of Potential Hazardous Waste Sites, San Francisco Bay Area, CA, PG&E
- Hydrogeologist, Kern Water Bank Evaluation Project, Kern Water Bank
- Hydrogeologist, Lake Skinner Groundwater Seepage Adjudication, Metropolitan Water District of Southern California
- Hydrogeologist, Los Baños Grandes Groundwater Resource Evaluation, Los Baños, California, CA DWR
- Hydrogeologist, Municipal Water Supply Well Siting, Design, & Construction, Alleghany County Water District
- Hydrogeologist, Mt. Hope Pumped Storage Project, Mt. Hope, New Jersey, Federal Energy Regulatory Commission
- Hydrogeologist, Platte River EIS, Wyoming and Nebraska, Federal Energy Regulatory
- Hydrogeologist, Sacramento Ethanol and Power Cogeneration Project, Sacramento, CA, ARK Energy
- Hydrogeologist, Sutter Power Plant AFC with the California Energy Commission, Sutter County, Calpine
- Hydrogeologist, Upper Rio Grande Flood Control Sys. Replacement, TX, Int. Boundary & Water Com.- US & Mexico
- Hydrogeologist, Vinvale Terminal, Southgate, California, BP/ARCO
- Hydrogeologist, Well 23 Assessment, Sacramento, CA, Sacramento Suburban Water District
- Hydrogeologist, Well 6 Destruction and Re-design, Sacramento, CA, Sacramento Suburban Water District
- Hydrogeologist, Well15 Rehabilitation, Rio Linda, CA, Rio Linda Elverta Community Water District, Rio Linda
- Independent Technical Reviewer, Calaveras Dam Replacement Project
- Independent Technical Reviewer, Diablo Canyon Nuclear Power Plant, Diablo Canyon, California, CEC
- Independent Technical Reviewer, Panama Canal Pacific Access Channel Project #4, Panama Canal Authority.
- Independent Technical Reviewer, Searchlight Wind Energy Project EIS, Bureau of Land Management
- Program QA/QC Manager, Urban and Non-Urban Evaluation Program (ULE/NULE), Sacramento, California, CA DWR
- Project Manager, Castaic Power Plant FERC Relicensing, Los Angeles Department of Water and Power (LADWP
- Project Manager, Dos Pueblos Pipeline Removal Project, Goleta, California, BP/Atlantic Richfield
- Project Manager, Hanford, Technical Baseline Studies, Hanford, Washington, Westinghouse Hanford Company
- Project Manager, Los Angeles Terminal, Los Angeles, California, Conoco-Phillips
- Soils Analyst, Soil Trafficability Surveys, Federal Republic of Germany, U.S. Army Corps of Engineers
- Subject Mater Expert, California Geology, CA Board of Professional Engineers, Land Surveyors, and Geologists
- Subject Mater Expert, Hydrogeology, CA Board of Professional Engineers, Land Surveyors, and Geologists
- Task Order Manager, Non-Urban Levee Evaluation Project (NULE), Sacramento Delta, California, CA DWR

Education

- PhD/Geology/1989/Kent State University, OH
- MS/Geology/1980/Kent State University, OH
- BS/Geology/1974/Lehigh University, PA

Registration

- 2008/Certified Hydrogeologist/CA/#906
- 1992/Professional Geologist/CA/#8346
- 1985/HAZWOPER/OHSA
- 1991/HAZWOPER Supervisor Certification/OHSA

Professional Societies/Affiliates

- Sigma Xi, Scientific Research Society, Life Member
- Association of Environmental and Engineering Geologists (former Finance Committee co-chair and member of the Board of Directors)
- Groundwater Resources Association of California

Publications

Dr. Maurath has more than 40 publications covering topics including paleoliquefaction, terrestrial heat flow, numerical modeling, hydrogeology, nuclear waste, hazardous waste, and geothermal energy. He is co-editor of *Geology of Sacramento*, which was published in January 2020.

Academia

Dr. Maurath has taught undergraduate courses in Physical Geology, Hydrogeology, Environmental Habitats, and Laboratory Safety; and graduate level courses in Geology of the Bahamian Platform, Carbonate Deposition, Reef Ecology, Forensic Photography, Data Management, and ICP Laboratory Techniques for Trace Element Geochemistry. Dr. Maurath has been affiliated with Kent State University, University of California at Davis, California State University Sacramento, Monmouth College, and the University of St. Francis.

DECLARATION OF
Melissa Mourkas

I, Melissa Mourkas, declare as follows:

1. I am employed by the California Energy Commission as a Planner II.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony for the Built Environment on **Section 4.5 Cultural/Tribal Cultural Resources** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 04/07/2022 Signed: Melissa Mourkas

At: Sacramento, California

MELISSA MOURKAS

EDUCATION

MASTER OF ARTS, LANDSCAPE DESIGN & PLANNING, 1994
CONWAY SCHOOL OF LANDSCAPE DESIGN, CONWAY, MASSACHUSETTS

Graduate landscape design program providing professional training in site design and land-use planning. Curriculum emphasis is on sustainable landscape planning and design. Graduate projects included: Master Plan for a 45-acre historic resort, original landscape designed by F.L. Olmsted and Performance Standards for a proposed industrial park.

BACHELOR OF ARTS, HISTORY OF ARCHITECTURE & ART, 1981
SCRIPPS COLLEGE, CLAREMONT, CALIFORNIA

Major studies in Art and Architectural History, Urban Development. Senior thesis: documentation and analysis of the innovative residential designs and construction techniques of California modern architect Rudolf M. Schindler. Minor studies in Art and the Humanities.

PROFESSIONAL EXPERIENCE/QUALIFICATIONS

- Licensed Landscape Architect, California # 5139
- Qualified Architectural Historian, Secretary of the Interior's Standards for Historic Preservation, Code of Federal Regulations, 36 CFR Part 61.

PLANNING AND HISTORIC PRESERVATION:

April 2010 to Present: Planner II, California Energy Commission, Siting, Transmission and Environmental Protection Division. Provide technical environmental analysis of proposed energy facilities and development. Review of EIR/EIS documents prepared by other agencies under NEPA. Specific tasks include: the assessment of potential impacts of new electric power plants on both Visual and Cultural Resources; identification of suitable mitigation measures under CEQA; preparation of written testimony; participation in public workshops; presentation of sworn testimony during evidentiary hearings, and project monitoring to ensure compliance with local, state and federal environmental laws and regulations. Cultural Resources specialty in the built environment, architectural and landscape history. Section 106 review of federally-funded energy efficiency upgrades under Programmatic Agreement with California OHP.

2008-2014: Member, City of Sacramento Preservation Commission (Chair 2013-2014)

2005 to 2008: Assistant Planner, Historic Preservation Office, City of Sacramento, CA
Responsible for design review and approval for private and public development projects involving rehabilitation, preservation and restoration of historic resources and districts under CEQA. Prepared staff reports for Preservation Commission and Council, and coordinated with other planning staff on concurrent entitlements. Staff liaison on municipal development projects involving historic resources.

LANDSCAPE ARCHITECTURE:

1994 to Present: Landscape Architecture and Design. Experience in landscape architecture, landscape construction estimating, site planning, historic landscapes and landscape master plans. Provide landscape architecture and consulting services to private clients, public organizations, contractors, and design firms. Preparation of Cultural Landscape Reports. Frequent speaker to various groups on landscape design, construction and cultural landscapes.

DECLARATION OF
Laiping Ng

I, Laiping Ng, declare as follows:

1. I am employed by the California Energy Commission as an Associate Electrical Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on Appendix B for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: Laiping Ng Signed: 4/7/2022

At: Sacramento, California

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.

DECLARATION OF
Jeanne Ogar

I, Jeanne Ogar, declare as follows:

1. I am employed by the California Energy Commission as a consultant Senior Environmental Planner.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Section 5.15 Public Services** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 4/6/21 Signed: Jeanne Ogar

At: Sacramento, California

Jeanne Ogar

SENIOR ENVIRONMENTAL PLANNER

PROFILE: Ms. Ogar has worked in the environmental consulting field since 2005. At Aspen Environmental Group, Ms. Ogar takes pride in her position as a planner, problem-solver, and leader, who approaches projects with creativity and adaptability. Ms. Ogar's diverse professional and educational background enables her to take a holistic approach to projects in consideration of environmental, social, and economic factors; as well as the interrelationships of the built environment, mobility, open spaces, equity, community engagement, and public health. Ms. Ogar has a background in environmental science, ecology, and urban planning. Her primary area of expertise is in preparing environmental documentation in compliance with NEPA and CEQA. Ms. Ogar has in-depth knowledge of the NEPA/CEQA review process, including preparing and circulating environmental documents for public/agency review, and assisting project stakeholders with the environmental decision-making process.

EDUCATION:

- Master of Environmental Science & Management (MESM), University of California, Santa Barbara, 2005
- B.A., French, University of California, Los Angeles, 1999

PROFESSIONAL EXPERIENCE

WILDFIRE RISK REDUCTION, RELIABILITY, AND ASSET PROTECTION PROJECT

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

Ms. Ogar is assisting with preparation of the Environmental Impact Statement/Environmental Impact Report. For this project, the Western Area Power Administration and Trinity Public Utilities District are proposing to expand the utility rights-of-way and remove vegetation around the electrical lines in Trinity County to reduce fire risk to the surrounding communities and public lands, as well as to increase electrical reliability to maintain critical services in the local communities.

PARKER-BLYTHE #2 (PAD-BLY#2) TRANSMISSION LINE REBUILD PROJECT

Western Area Power Administration, Desert Southwest Region, 2021-present

As the Project Manager, Ms. Ogar is managing the environmental review process, including public scoping and the preparation of several technical studies and an Environmental Assessment. For this project, the Western Area Power Administration proposes to reconstruct the PAD-BLY#2 transmission line that extends for 63.9 miles between the Parker Dam Switchyard in unincorporated San Bernardino County to the north and the Blythe Substation in the City of Blythe in Riverside County to the south.

DIABLO CANYON POWER PLANT DECOMMISSIONING PROJECT

San Luis Obispo County, 2021-present

Ms. Ogar is assisting with the wildfire and marine transportation analyses for the Environmental Impact Report. The impacts analyzed for wildfire include whether the project would impair adoption of an emergency response or evacuation plan, exacerbate wildfire risks, or expose people or structures to post-wildfire hazards. For marine transportation, Ms. Ogar conducted an analysis of whether the project would reduce marine vessel safety or increase the potential for marine vessel accidents. For this project, PG&E proposes to decommission the Diablo Canyon Power Plant, including removal of most on-site buildings except those remaining in a redefined owner-controlled area, the intake structure, and breakwaters.

PREVIOUS EMPLOYMENT

- **GPA Consulting** – Senior Environmental Planner, El Segundo, CA (2012-2021) – At GPA, Ms. Ogar prepared environmental documentation for public infrastructure projects in compliance with CEQA and NEPA.
- **URS** – Environmental Planner, Oakland, CA (2010-2012) – Ms. Ogar assisted with environmental documentation in compliance with CEQA and NEPA.
- **ERM** – Environmental Scientist, Walnut Creek, CA (2005-2009) – Ms. Ogar conducted environmental technical analyses to support preparation of CEQA and NEPA documentation.

DECLARATION OF
Wenjun Qian, Ph.D., P.E.

I, Wenjun Qian, declare as follows:

1. I am employed by the California Energy Commission as an Air Resources Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Air Quality** and **Greenhouse Gas Emissions** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: April 8, 2022 Signed: _____

At: Sacramento, California

Wenjun Qian, Ph.D., P.E.

Education

Ph.D., Mechanical Engineering, University of California, Riverside, 2010
M.S., Mechanical Engineering, George Washington University, 2005
B.S., Mechanical Engineering, Shanghai Jiao Tong University, China, 2004

Professional Experience

Air Resources Engineer ***(July 2010 – Present)***
California Energy Commission, Siting Transmission and Environmental Protection Division

Technical expert responsible for completing environmental analysis on thermal power plant project (including linears) applications seeking a California Energy Commission license, or an amendment to an existing license, in addition to determining ongoing compliance for facilities operating under existing Energy Commission licenses. Specific responsibilities, by technical area, include the following:

Air Quality

- Reviewing modeling protocols to make sure they comply with current modeling guidance documents.
- Reviewing project applications to verify engineering data, including worst case emissions during construction/demolition, commissioning, and various operating profiles.
- Completing air dispersion modeling to identify the worst case project impacts, and determining whether the project would result in any significant air quality related impacts.
- Determining whether the project would comply with all federal, state, and local air quality laws, ordinances, regulations, and standards.
- Coordinating with local Air Quality Management Districts and incorporating Determinations of Compliance into Energy Commission Staff Assessments.
- Investigating and recommending appropriate emission mitigation measures under California Environmental Quality Act requirements.
- Managing ongoing air quality compliance for power plant facilities during construction and operation.

Greenhouse Gases

- Reviewing project applications and quantifying potential greenhouse gases emissions associated with construction/demolition, commissioning, and operation of the proposed facilities.
- Determining whether the project would comply with all federal, state, and local greenhouse gases laws, ordinances, regulations, and standards.
- Analyzing the implications the proposed facility may have on California's electricity sector, and how it may affect greenhouse gases emissions in California and globally.

Visible Water Vapor Plume

- Assisting the technical experts authoring the Visual Resources section to identify potential visual impacts as a result of visible water vapor plumes.
- Reviewing operational design data from visible water vapor plume emitting sources and calculating visible plume frequencies and sizes.

Vertical Plume Velocity

- Assisting the technical experts authoring the Traffic and Transportation section to identify potential hazards to aircrafts as a result of vertical plume velocities.
- Reviewing operational design data from vertical plume emitting sources and calculating the vertical plume velocities at various heights.
- Identifying at what height above the plume sources the vertical plume velocities drop below the threshold of concern set by the Federal Aviation Administration.

Nitrogen Deposition

- Assisting the technical experts authoring the Biological Resources section to identify potential nitrogen deposition impacts.
- Reviewing and completing air dispersion modeling to identify nitrogen deposition impacts to sensitive habitats.

Worked on the following AFCs/SPPEs:
CA3 Backup Generating Facility, Great Oaks South Backup Generating Facility, Laurelwood Data Center, Mariposa Energy Project, McLaren Backup Generating Facility, Pio Pico Energy Center, Pomona Repower Project, Puente Power Project, Quail Brush Generation Project, Redondo Beach Repower, Rio Mesa Solar Electric Generating System, Sequoia Data Center, etc.

Worked on the following project amendments:
El Segundo Energy Center, Huntington Beach Energy Project, Ivanpah Solar Electric Generating System, Orange Grove Energy Power Project, Otay Mesa Energy Center, Palomar Energy Project, Russell City Energy Center, etc.

Research Assistant ***(Sept. 2005 – June 2010)***
University of California, Riverside, Mechanical Engineering

- Evaluated air quality impacts of distributed generations in South Coast Air Basin of California.
- Estimated air quality impacts from the key power plant of Los Angeles Department of Water and Power in shoreline urban areas.
- Improved AERMOD performance during low wind stable conditions.
- Prepared and presented multiple comprehensive reports, journal papers, and conference papers.

Licensures

Professional Engineer, Mechanical (California License No. M 36370)

Awards

2013 Superior Accomplishment Award – California Energy Commission

DECLARATION OF
Gabriel Roark, M.A.

I, Gabriel Roark, declare as follows:

1. I am employed by the California Energy Commission as an Energy Resources Specialist III (Supervisory).

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared and supervised preparation of the staff testimony on the **Cultural and Tribal Cultural Resources Section** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 04/07/2022 Signed: Gabriel Roark

At: Sacramento, California

GABRIEL ROARK, M.A.

Archaeologist

Since 1999, Mr. Roark has directed and conducted cultural resource investigations for projects involving the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act (NHPA). Mr. Roark possesses extensive professional experience in prehistoric archaeology, historical archaeology, and regulatory compliance, routinely serving as the project manager and technical lead on several projects simultaneously. He specializes in the design and implementation of archaeological monitoring programs, archaeological surveys and excavations, archival research, and CEQA and Section impact analyses. His Section 106 experience includes drafting memoranda of agreement, programmatic agreements, and historic properties treatment plans.

Mr. Roark currently serves as the technical senior in the Cultural Resources Unit of the California Energy Commission's Siting, Transmission, and Environmental Protection Division. In addition to cultural resource analyses for power plant applications under the Warren-Alquist Act, Mr. Roark is provides quality control and assurance for the work of the Cultural Resources Unit staff.

Professional Employment History

State Energy Resources Conservation and Development Commission (California Energy Commission). Senior Environmental Planner (Cultural Resources). May 1, 2019–present.

State Energy Resources Conservation and Development Commission (California Energy Commission). Planner II (Cultural Resources). June 1, 2012–April 30, 2019.

ICF International. Senior Associate (Archaeologist). February 23, 1999–May 30, 2012.

Years of Experience

- Professional start date: 02/23/1999

Education

- MA, Anthropology, California State University, Sacramento, 2009
- BA, Anthropology, California State University, Sacramento, 1999

Special Training

- Cascade Range Archaeological Project, Crew Chief, California State University, Sacramento, 1999
- Archaeological Field School, Mammoth Lakes, California State University, Sacramento (Dr. Mark E. Basgall, Director), 1999
- Anthropology 199: Introduction to Analysis of California Gold Rush Chinese Ceramics, Independent Study, California State University, Sacramento (Dr. Jerald J. Johnson, Instructor), 1999
- Anthropology 195A and 192: Fieldwork and Laboratory Work in Archaeology, Coloma, California State University, Sacramento (Dr. Jerald J. Johnson and Dr. Tom Strasser, Instructors), 1997

DECLARATION OF
Kenneth Salyphone

I, Kenneth Salyphone, declare as follows:

1. I am employed by the California Energy Commission as a Mechanical Engineer.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I prepared the staff testimony on **Energy and Energy Resources** section, **Noise and Vibration** section, **Appendix A**, and portions of **Appendix C** and the **Alternatives** section for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: April 8, 2022 Signed: Kenneth Salyphone

At: Sacramento, California

Kenneth Salyphone

916.654.4658

1516 9th Street Sacramento CA 95814

kenneth.salyphone@energy.ca.gov

PROFESSIONAL EXPERIENCE:

Mechanical Engineer
California Energy Commission, Sacramento CA 12/2020 – Present

Mechanical Design Engineer, Lead
Micron Technology, Inc., Folsom CA 12/2017 – 12/2020

Mechanical Design Engineer
Micron Technology, Inc., Folsom CA 12/2013 – 12/2017

Mechanical Design Engineer, Intern
Micron Technology, Inc., Folsom CA 06/2013 – 12/2013

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

SolidWorks Certified # C-65MWAZ786B

Professional Engineering License (in progress)

WHAT I DO:

- Prepare 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.
- Provide expert witness testimony at commission hearings.

MEMBERSHIPS AND AFFILIATIONS:

- Member of Tau Beta Pi
- Member of the American Society of Mechanical Engineers

DECLARATION OF
Negar Vahidi

I, Negar Vahidi, declare as follows:

1. I am employed by the California Energy Commission as a consultant.

2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.

3. I supervised prepared and/or supervised the preparation of the staff testimony on **Agriculture and Forestry Resources, Land Use and Planning, Population and Housing, Recreation, Public Services, and Transportation Section(s)** for the **CA3 BACKUP GENERATING FACILITY** based on my independent analysis of the Application for Small Power Plant Exemption and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.

4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issues addressed therein.

5. I am personally familiar with the facts and conclusions related in the testimony and, if called as a witness, could testify competently thereto.

   I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: April 6, 2022 Signed: 

At: Sacramento, California

Negar Vahidi

PLANNING AND PUBLIC POLICY DIRECTOR

PROFILE: Ms. Vahidi specializes in land use, public policy, and socioeconomics and environmental justice analyses for energy and water infrastructure projects. She has extensive experience managing and preparing a variety of federal, State, and local environmental, planning, and analytical documents, including NEPA and CEQA compliance, for large-scale water and energy infrastructure and development projects. She currently serves as Aspen's Planning and Public Policy Director.

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 CEQA/NEPA TASK ORDER MANAGEMENT

ENVIRONMENTAL AND AIR QUALITY SERVICES ON-CALL CONTRACT

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

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 (2017-2022), the largest municipal utility in the State. 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 several Task Orders (45 thus far), 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 2014 to 2017 (19 Task Orders). In addition to her duties as the contract manager, Ms. Vahidi manages several Task Orders under this contract.

- DS 104 CEQA Documentation, Los Angeles, CA. TO Manager for CEQA documentation of a distribution station in West Los Angeles.
- Scattergood Energy Storage EIR, Los Angeles, CA. Task Order (TO) Manager for this EIR analyzing energy storage at the Scattergood Generating Station.
- Beacon Battery Energy Storage Project CEQA documentation, Antelope Valley, CA. TO Manager for this CEQA support services for LADWP's pilot energy storage project adjacent to the Beacon Solar Farm.
- Elizabeth Tunnel Seismic Enhancement Project, ANF. Task Order (TO) Manager providing US Forest Service Special Use Permit (SUP) and Section 106 compliance support services.
- 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.

LADWP 2006-2009 Contract:

- 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

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 was 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

DIABLO CANYON POWER PLANT DECOMISSIONING 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, and Land Use, Planning and Agriculture She's also the author of the environmental justice analysis.

TECHNICAL ASSISTANCE

California Energy Commission, 2000-present

In response to California's power shortage, Aspen has assisted the 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 (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 nonreclaimable 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 (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.

Peak Workload Support for the Energy Facility Siting Program and the Energy Planning Program (Contract #700-05-002; and 4/11/06 through present); and Siting, Transmission, and Environmental Protection Peak Workload (STEP) (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 infrastructure 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 Peak Workload (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.

Technical Assistance On-call Contract to Support the Energy Commission's Electric Program Investment Charge (EPIC) Program (Contract # 300-15-003; 4/1/16 - 3/30/22).

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).

CEQA TRAINING COURSE
Central Basin Municipal Water District, 2017

Senior CEQA Expert/Instructor for a customized Introduction to CEQA training session for the Central Basin Municipal Water District.

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.

TRANSMISSION LINE AND SUBSTATION PROJECTS

OPPORTUNITIES AND CONSTRAINTS ANALYSIS

Confidential Client, 2016-2017

Ms. Vahidi served as Senior Technical Lead for an Opportunities and Constraints Analysis for a California transmission line. 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 Scoping phase.

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 will 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, 2001-2003

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

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 construction and operation of 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.

EIP ASSOCIATES (1998-2001)

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

California Public Utilities Commission, 1999-2000

For the CPUC's EIR evaluating the Pacific Gas & Electric Company's (PG&E) proposal to divest their hydroelectric facilities in California, served as the land use technical analyst for two watershed areas, and the Task Manager for the Socioeconomics and Transportation sections of the EIR covering five watershed areas. PG&E owns and operates the largest private hydroelectric power system in the nation. Situated in the Sierra Nevada, Southern Cascade, and Coastal mountain ranges of California, this system is strung along 16 different river basins and annually generates approximately five percent of the power consumed each year in California. The proposed sale of assets also includes approximately 140,000 acres of land proposed for sale with the hydroelectric system. The EIR analyzes the range of operational changes that could occur under new ownership, including complex integrated models that analyze power generation and water management. The land use section of the EIR examines the implications of the change in ownership of lands and the potential for impacts due to development or potential changes in use. Contributed significantly to the extensive GIS analysis, which was conducted to determine the development suitability and potential intensity of development that might occur on the lands if sold. These results served as one of the primary bases for analysis of impacts associated with the sale of the hydroelectric assets.

SECTION 108 LOAN GUARANTEE EA/FONSI FOR THE WATERFRONT DEVELOPMENT PROJECT

City of Huntington Beach Economic Development Department, 1999

Served as the Manager and Principal Preparer for this EA/FONSI for the City of Huntington Beach Economic Development Department. Prepared NEPA documentation evaluating the impacts resulting from the use of HUD Section 108 Loan guarantee funds for the Waterfront Resort Expansion Project in accordance with The HUD NEPA Guidelines and Format 1 (Environmental Assessments at the Community Level). Tasks included: (1) Evaluation of activities that would be categorically excluded from NEPA based on an assessment of the NEPA Implementing Guidelines for HUD Projects; (2) Evaluation of proposed actions compliance with all applicable federal statutes, regulations, and policies; and (3) Preparation of an Environmental Assessment/Mitigated Finding of No Significant Impact (EA/FONSI) for proposed actions that are not categorically excluded. Proposed actions to be evaluated consisted mainly of infrastructure improvement projects, rehabilitation and/or development of affordable housing, provision of relocation assistance, facilitation of development and/or redevelopment plans, property acquisition, provision of open space, etc.

MTA MID CITIES/WESTSIDE TRANSIT CORRIDOR STUDY EIS/EIR

Los Angeles County Metropolitan Transportation Authority, 1998-2000

Served as the EIS/EIR Deputy Project Manager (DPM) for this 3-phase (including prepared the Major Investment Study (MIS), the Environmental Impact Statement (EIS), and an evaluation of the urban design implications of transit interventions on selected routes) study intended to address current and long-range traffic congestion in the central and westside areas of the Los Angeles, Basin. Three east/west corridors and a range of transit alternatives ranging including Rapid Bus, light rail, and heavy

rail are being evaluated. In addition to her duties as DPM for this comprehensive joint EIS/EIR, Ms. Vahidi prepared the Environmental Justice Analysis (per Executive Order 12898), the Section 4(f) Parklands discussion, and the land use and socioeconomics sections of the EIS/EIR.

WES THOMPSON RANCH DEVELOPMENT PROJECT EIR

City of Santa Clarita, 1998-1999

Served as the EIR Project Manager for this hillside residential development in the City of Santa Clarita. Issues of concern included seismic and air quality impacts associated with the excavation of 2 million cubic yards of soil, the project's non-compliance with the City's hillside ordinance for innovative design, and traffic generated by project-related population growth in the area. Four different site configuration alternatives were developed as part of the EIR analysis. Other issues of concern included sensitive biological resources, the potential for hydrological impacts due to disturbance of the hillside, and cultural resources.

ENVIRONMENTAL ASSESSMENTS

City of Santa Monica, 1998-2001

As one of the City's qualified CEQA consultants managed several environmental assessment documents for housing, commercial, institutional, and mixed-use developments in compliance with CEQA, including:

- Berkeley Manor Condominium EIR and Technical Reports. This one-issue EIR originally was a CEQA Categorical Exemption per direction of the City. During preparation of the Categorical Exemption documentation, it was determined that project-generated traffic would have potentially significant impacts. As a result, a traffic technical report was prepared as the background document for and EIR. In addition, shade and shadow impacts were evaluated in a technical report to ensure that shading impacts from the proposed structure on surrounding uses would not be significant. A simple Excel model was developed for calculation of shade and shadow angles.
- Seaview Court Condominiums IS/MND. This comprehensive Initial Study/Mitigated Negative Declaration included six technical reports including traffic, cultural resources, parking survey, shade and shadow analysis, and a geotechnical assessment to evaluate the level of severity of this development in the waterfront area of Santa Monica. Major issues of concern were; parking and project-generated traffic on adjacent narrow residential streets; visual obstruction and shading impacts of the proposed structure; liquefaction and seismic impacts to adjacent properties as result of the project's excavation for a subterranean parking garage; and the potential impacts of the project to impact the integrity of a historic district and the historic Seaview Walkway to the beachfront.
- Four-Story Hotel IS/MND. A comprehensive Initial Study/Mitigated Negative Declaration was prepared for this four-story hotel adjacent to St. John's Hospital in Santa Monica. Major issues of concern included project-generated traffic on surrounding multi-family residential uses and emergency access to the hospital.
- Santa Monica College Parking Structure B Replacement EIR. This focused EIR addressed issues related to traffic and neighborhood land use impacts associated with the addition of a 3-story parking structure in the center of the SMC campus. Major issues of concern included the potential for project-generated traffic to cause congestion at the school's main entrance on Pico Boulevard, and the potential for overflow traffic to impact the Sunset Community of single-family homes adjacent to the school.

North Main Street Mixed-Use Development Project EIR. This EIR included evaluation of impacts resulting from the development of a mixed-use development in Santa Monica's "Commercial Corridor" on Main Street, with ground-floor residences and boutique commercial uses. Major issues of concern included traffic and parking impacts to Main Street and surrounding residential land uses, shade and shadow impacts, and neighborhood impacts.

SPECIFIC PLANS AND REDEVELOPMENT PROJECTS

Various Clients, 1998-2001

As the senior technical lead for land use, prepared the project description, alternatives screening and development, cumulative scenario, and land use analysis for:

- Cabrillo Plaza Specific Plan EIR, Santa Barbara, CA. This project consisted of a mixed-use commercial development on Santa Barbara's waterfront on Cabrillo Boulevard. On-site uses included an aquarium, specialty retail, restaurants, and office space.
- Culver City Redevelopment Plan and Merger EIR, Culver City, CA. This programmatic EIR evaluated the impacts of the City's redevelopment of its redevelopment zones. A major land use survey and calculation of acreage of redevelopment lands was conducted as part of the EIR.
- Dana Point Headlands Specific Plan EIR, Dana Point, CA. This EIR evaluated the development of coastal bluff in the City with hotel, single- and multi-family residential, and commercial uses. Major issues of concern included ground disturbance as a result of excavation, impacts to terrestrial and wildlife biology, recreation impacts to beachgoers, and project-generated population inducement.

Blocks 104/105 Redevelopment Project EIR, Huntington Beach, CA. This EIR evaluated the development of a supermarket, retail shops, and office space in the City's Waterfront Redevelopment Zone. Issues of concern evaluated included traffic, land use, and impacts to on-site historic structures. Ms. Vahidi served as EIR Project Manager.

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
- 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.

TRAINING

- U.S. Forest Service, *Advanced Effects Analysis Training*: How to "right-size" document preparation (specialist reports, NEPA documents, etc.), July 25, 2019. Conducted by USDA Forest Service, Region 5 (Pacific Southwest Region).

PROFESSIONAL AFFILIATIONS

- American Planning Association (APA), Los Angeles Section Executive Board Member 1999-2001
- National Association of Environmental Professionals (NAEP)