

DOCKETED

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**DECLARATION OF
James Adams**

I, **James Adams**, declare as follows:

1. I am presently employed by the California Energy Commission in the Siting, Transmission and Environmental Protection Division as a **Planner II for Traffic and Transportation**.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I assisted in the preparation of the staff testimony on **Traffic and Transportation** for the **Puente Power Project (15-AFC-01)**, based on my independent analysis of the Petition to Amend 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 issue(s) 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: 10/27/16

Signed: 

At: Sacramento, California

James S. Adams
Environmental Protection Office
California Energy Commission
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Sacramento, CA 95814-5504
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12/2009

Present – **Private Analyst**

Provide consulting and analytical services on personal time at the Nuclear Decommissioning Costs Triennial Proceedings at the California Public Utilities Commission or Consent-Based Siting of Nuclear Waste proceeding by the U.S. Department of Energy.

7/2014

Present - **Environmental Planner – Retired Annuitant**

Continue to conduct aviation safety analyses related to glare issues regarding the Ivanpah Solar Electric Generating System and other solar power tower projects. Review applications for certification for power plants that would be located near operating airports. Train staff on these and other power plant issues such as high velocity plumes potentially affecting low-flying aircraft.

5/1999

6/2014 **Environmental Planner**

Review applications for certification to acquire permits from the California Energy Commission to build electric generating power plants. Specific technical fields include traffic and transportation. In particular, I have throughout my 15 year career focused on aviation safety issues such as thermal and high-velocity plumes and glint and glare related to power plant siting cases. Recent work involves Ivanpah and Palen Solar Electric Generating Stations. Pilots and air traffic controllers have reported significant glare from the Ivanpah project and I have been the lead analyst for the Environmental Office in investigating this issue. This involves working with the Federal Aviation Administration, Caltrans Aeronautics, NASA Aviation Safety Reporting System, and Clark County (Nevada) Department of Aviation.

11/1997

5/1999 **Energy and Resource Consultant**

Provided clients with technical expertise on various issues related to natural resource use and development. Activities included managing an Intervention by the Redwood Alliance before the California Public Utilities Commission regarding the decommissioning of the Humboldt Bay Power Plant's nuclear reactor.

9/1994--

10/1997 **Senior Analyst - Safe Energy Communication Council (SECC)**

Responsible for developing and/or implementing campaigns on various

energy issues involving the promotion of energy efficiency and renewable energy and advocating less reliance on nuclear power. Managed educational outreach efforts to newspaper editorial writers throughout the U.S. to encourage coverage of energy issues. Participated in meetings and negotiations with key President Clinton administration officials, members of Congress and staff, national coalitions, and grassroots organizations on important energy issues (e.g. U.S. Department of Energy Budget for Fiscal Years 1996-1998). Successfully raised \$140,000 from private foundations to support SECC activities.

6/1978--

12/1992 **Principal Consultant - Redwood Alliance**

Provided consulting services to the Alliance; a renewable energy/political advocacy organization. Major responsibilities included managing and/or participating in several interventions/appearances before the California Public Utilities Commission, California Energy Commission, California Legislature, U.S. Congress and the U.S. Nuclear Regulatory Commission. Issues included electric utility planning options, greater reliance on energy efficiency and renewable energy, nuclear power economic analyses, decommissioning cost estimates, and nuclear waste management and disposal.

2/1983--

8/1986 **Natural Resource Specialist**

Assisted private consulting, firms, non-profit corporations and government agencies in various projects related to the enhancement and protection of national forests in Northern California and Southern Oregon. This included contracts with the U.S. Forest Service, Fish and Wildlife Service, National Park Service, the California Coastal Conservancy, and private landowners.

6/1978--

1999 **Consultant/Journalist/Paralegal/Lobbyist**

Throughout the period of work outlined above, I have written a considerable amount of news articles and reports connected to ongoing-projects and issues of personal interest. The legal/administrative interventions have required extensive paralegal work to support attorneys, and technical expertise to identify and assist consultants. In addition, many of the projects required consulting services and lobbying, at the local, state and federal level whenever necessary, as well as working with the print and television media as appropriate.

From 1978 through 1984 I served on the Board of Directors for two local non-profit agencies devoted to sustainable community development, Redwood Community Development Council and Redwood Community Action Agency (RCAA). I also was hired on staff at RCAA as a natural resource specialist which is explained more fully above. I am proficient with computers, printers, fax machines and related equipment.

EDUCATION

- M.A. Social Science. Political science and natural resources emphasis.
California State University at Humboldt. December 1988.
- B.A. Political Science. Political and economic aspects of natural resource
development, with a particular emphasis in forest ecology and appropriate
technology. California State University at Humboldt. June 1978.

Academic Honors.

Member of PI GAMMU MU Honor Society since 1986.

MILITARY SERVICE

7/1969--9/1973 U.S. Navy. Air Traffic Controller (Flight Operations, Control Tower,
Radar)
9/1975 - Honorable Discharge.

**DECLARATION OF
Gerald R. (Gerry) Bemis**

I, **Gerald R. (Gerry) Bemis** declare as follows:

1. I am presently employed by the California Energy Commission in the **Engineering Office** of the Energy Facilities Siting and Environmental Protection Division as an Air Resources Supervisor 1.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I supervised and led preparation of the staff testimony on the topics of: (1) **Air Quality**, (2) **Public Health**, (3) **Transmission Line Safety and Nuisance** and (4) **Traffic and Transportation Thermal Plume Appendices 2 and 3** contained in the Final Staff Assessment for the **Puente Power Plant** Application for Certification (AFC). This work is based on review of my staff's independent analysis of the AFC 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: 12-13-16 Signed: GR Bemis

At: Sacramento, California

GERALD R. (Gerry) BEMIS, PE

Experience Summary

Over thirty five years of experience in the energy field, including electric power plant facility siting, advanced electricity production technologies, regulatory compliance; energy research and development; energy transportation technology and policy and analysis of regulatory issues.

Education

B.S.; Civil Engineering (CSU Sacramento, 1969)

M. Engr; Civil/Environmental Engineering (UC Davis, 1978).

Registered Professional Civil Engineer (California).

Experience (at California Energy Commission)

2009-present – Air Resources Supervisor in the Siting, Transmission and Environmental Protection Division. Supervises and leads the review and environmental evaluation of power plant proposals, identifies issues and resolutions; coordinates with other agencies; and reviews and prepares expert testimony in the areas of:

- Air quality impacts and mitigation;
- Public health impacts of power plants;
- Transmission Line Safety and Nuisance.

Coordinates with local air quality districts, the Air Resources Board (ARB) and U.S. Environmental Protection Agency (U.S. EPA).

2001-2009 – Developed and updated the statewide California Greenhouse Gas (GHG) emissions inventory, including training ARB staff to take over responsibility for the GHG inventory as part of Assembly Bill 32 (in 2007). Developed a strategy to enable California's light-duty vehicle sector to do its "fair share" of GHG emissions reductions to meet a 2050 goal of reducing statewide GHGs 80 percent below 1990 levels.

1994-2001 – Managed Fuel Resources Office. This consisted of a staff of 23 professionals who performed various activities related to fuel supply adequacy, including natural gas for power plants and petroleum for transportation.

1991-1994 – Supervised Heavy-Duty Alternative Fuels Program. This group was responsible for the \$100 million Safe School Bus Program and provided funding for several clean fuel transportation technology research and grant activities.

1982-1991 – Supervised or performed technical analyses and support for several activities, including the *Energy Technologies Status Report* used to document the commercial availability of advanced power plant technologies which were alternatives to conventional power plants during Energy Commission siting cases.

1977-1982 – Power plant siting air quality reviews and analysis. Evaluated large thermal power plant siting proposals, coordinating with the U.S. EPA, ARB and local air quality districts.

**DECLARATION OF
Edward James Brady**

I, **Edward James Brady**, declare as follows:

1. I am presently employed by the California Energy Commission in the Engineering Office of the Siting, Transmission and Environmental Protection Division 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 Noise, Power Plant Efficiency and Power Plant Reliability for the **Puente Power Project Final Staff Assessment**, based on my independent analysis of the Application for Certification and supplement 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 issue 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: 10/27/16

Signed: Edward James Brady

At: Sacramento, California

Edward James Brady

Mechanical Engineer

Summary of Experience

Forty years of experience in the profession of mechanical engineering as a staff engineer to the California Energy Commission, engineering consultant, design group supervisor in a major power plant project, senior engineer for a gas and electric utility, sales and design engineer for a contractor, and instructor in a community college.

Education

- BSME, Santa Clara University, 1972
- Graduate Engineering Studies, Santa Clara University
- Graduate Business Studies, University of San Francisco
- Continuing Education, UC Extension

Professional Registration

- Mechanical Engineer (M17924) California
(25505) Washington
(33082) Colorado
(9248, Inactive) Nevada
- Civil Engineer (C36194) California

Affiliations

- American Society of Mechanical Engineers (ASME), Life Member
- American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), Life Member

Curriculum Vitae

2011 – Present **Staff Mechanical Engineer**, California Energy Commission, Siting, Transmission and Environmental Protection Division (STEP). Performs analysis of generating capacity, reliability, efficiency, noise and vibration, and the mechanical, civil, electrical, and structural aspects of power plant siting and construction cases.

1988-2011 **Principal Mechanical Engineer**, Brady Engineering. Provided design and consulting services for the permitting and construction of industrial and commercial facilities, and residential buildings in

the fields of heating, ventilating air conditioning (HVAC), plumbing, fire protection and energy analyses.

- 1984-1988 **Design Group Supervisor**, Joint PG&E and Bechtel Project. Worked as the mechanical group supervisor responsible for the design modifications required for the licensing of Diablo Canyon Power Plant, Units 1 and 2.
- 1980-1988 **Senior Mechanical Engineer**, PG&E Civil Engineering Department, Architectural Section. Provided work group supervision and design of building mechanical systems for common utility plant facilities (CUP) and balance of plant systems for power production facilities.
- 1977-1980 **Mechanical Engineer**, PG&E Civil Engineering Department, Architectural Section. Provided HVAC and plumbing design for CUP and power production facilities.
- 1974-1977 **Instructor**, San Francisco Community College District, John O'Connell Evening School. Provided apprenticeship training in the technical fields of HVAC and refrigeration.
- 1977 **Design Engineer**, Charles and Braun Consulting Engineers, San Francisco. Worked as a staff designer in the fields of HVAC and plumbing for commercial facilities including a sentence detention facilities and a proto-type regional facility for a federal agency.
- 1972-1976 **Sales and Design Engineer**, Scatena York Company, San Francisco. Worked as a sales and design engineer for a refrigeration contractor, which provided design and installation of refrigeration systems for supermarkets and cold storage facilities.

Power Plant/Utility Experience

California Energy Commission, Rio Mesa Solar Electric Generation Station (RMSEGS). 500 MW Solar Power Tower. Riverside County

, Hidden Hills Solar Electric Generating Station (HHSEGS). 500 MW Solar Power Tower. Inyo County.

, Hydrogen Energy California (HECA). 405 MW Combined Cycle, Fuel Gasification, CO₂ Sequestration, Ammonia Production. Kern County

, Quail Brush Generating Project (QBGP). 1100 MW Reciprocating Engine Electric Generation. City of San Diego

, Huntington Beach Energy Project (HBEP). 939 MW Combined Cycle. City of Huntington Beach.

, Redondo Beach Energy Project (RBEP). 496 MW Combined Cycle. City of Redondo Beach, Los Angeles County.

, Bottle Rock Geothermal Facility, 50 MW Geothermal Power Plant, Lake County, California

, Geysers Units 13 and 16 Geothermal, 100 MW Geothermal Power Plants, Lake County, California

, Carlsbad Energy Center Project Amendment, Six (6) Combustion Turbine Generators, Carlsbad, California

, Sonoran (Blythe II) Energy Center (SEP), 344 MW One- by-One Combined Cycle Combustion and Steam Gas Turbine Generator, Blythe, California

, Puente Power Project (P3), 262 MW Simple Cycle Gas Combustion Turbine, Oxnard California

, Alamitos Energy Center (AEC), 1936 MW Combined Cycle and Simple Cycle Combustion Turbines, Long Beach, California

, Pomona Power Project (PPP), Replacement Project (PPP) Small Power Plant Replace Exemption (SPPE), 44.5 MW, AtlaGas Pomona LLC. Simple Cycle Gas Turbine Generator. City of Pomona, California

, Mission Rock Energy Center (MREC), 275 MW simple cycle combustion turbine co-located with 25 MW battery energy storage, County of Ventura, California

PG&E , Diablo Canyon Power Plant, Units 1 and 2. Licensing of safety related systems.
, Diablo Canyon Power Plant, Administration Building, SLO County Emergency Response Building

, Geysers Power Plant, Units 16, 17, 20, and 21. Ventilation and cooling for turbine building and hazardous waste disposal facilities, administration building.

, Helms Pumped Storage Facility, Kern County. Smoke control ventilation for underground transformer vaults.

, Humboldt No. 3, Eureka. Decommissioning of nuclear facility and construction of hazardous materials storage and handling.

, Moss Landing Power Plants, Units 1 through 6, Monterey County

, Morro Bay Power Plant, Morro Bay

, Hunters Point Power Plant, San Francisco

, Potrero Power Plant, San Francisco. Combined Cycle

, Gas Transmission Facilities, Line 300 and 400, Topock and Corning Compressor Stations, McDonald Island and Brentwood Gas Storage Facilities

, Central Computer Facilities, San Francisco and Vacaville

, 77 Beale Street, San Francisco. Energy Management System

, 215 Market Street, San Francisco. Boiler Replacement

, Underground Fuel Tank Replacement. Upgrade of more than 500 gallon fuel storage tanks to meet double containment requirements.

, Contra Costa Power Plants, Unit 1 through 6, Water Treatment

- , Pittsburg Power Plants, Unit 1-5, Water Treatment Facilities
- , Avon, Martinez and Oleum (AVO), Water Treatment Upgrade
- , Tiger Creek Powerhouse, North Fork Feather River
- , Kirchoff No. 2 Pump Storage Facility.
- , Technical Support Services, Marketing Department

South Bay Sanitary Authority, 1400 Radio Road, Redwood Shores. Gas piping and boiler conversion.

DECLARATION OF
Matthew Braun

I, Matthew Braun, declare as follows:

1. I am presently employed by the California Energy Commission in the Siting, Transmission and Environmental Protection Division as a Cultural Resources Analyst.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I am familiar with, and have reviewed the analysis and preparation of, staff testimony on **Cultural Resources** for the **Application for Certification** for the **Puente Power Project**. Therefore, based on the independent analysis of the Application for Certification and associated supplements; based on data from reliable documents and sources; and, based on my professional experience and knowledge: I attest to the accuracy of this testimony, and support its conclusions, finding and recommendations hereto.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue 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: 12/14/16 Signed: Matthew Braun
At: Sacramento, California

MATTHEW BRAUN
Cultural Resources Specialist

Academic Background

MA, Anthropology (Archaeology), Northern Illinois University
BS, Anthropology and Psychology, University of Pittsburgh

Professional Experience

Mr. Braun is a Secretary of the Interior qualified prehistoric archaeologist and cultural anthropologist. He has over 9 years of experience conducting archaeological field work, consulting with Native American groups, researching, analyzing, and writing about Native American concerns, archaeology, ethnohistory, anthropology, cultural and ethnographic landscapes and paleontology. Mr. Braun has experience preparing cultural resources technical reports and environmental documents pursuant to applicable federal, state and local regulations in compliance with the National Environmental Policy Act (NEPA), Section 106 and 110 of the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA).

California Energy Commission.....2014-present

The California Energy Commission is the State Agency responsible for licensing energy facilities 50 megawatt and greater and environmental review is conducted under a CEQA-equivalent Certified Regulatory Program. As a Planner II, Mr. Braun provides independent analyses of prehistoric and ethnographic resources for proposed energy facilities throughout California by conducting fieldwork, report writing, and critical analysis of Applicant proposed impacts and mitigation measures. As a cultural resources analyst with the Energy Commission, Mr. Braun participated in the following projects:

- **Alamitos Generating Station.** Mr. Braun conducted analyses of impacts to ethnographic resources for this natural gas-fired power plant in Long Beach, California.
- **Carlsbad Energy Center Project.** Mr. Braun conducted analyses of impacts to ethnographic and archaeological resources for this natural-gas fired power plant in Carlsbad, California.
- **Argus Cogeneration Project.** Mr. Braun conducted analyses of impacts to ethnographic and archaeological resources from the decommissioning of this coal-fired powered plant in Trona, California.
- **Gateway Generating Station Power Project.** Mr. Braun oversaw portions of the compliance efforts of this natural gas-fired power plant in Antioch, California.
- **Puente Power Proejct.** Mr. Braun conducted analyses of impacts to ethnographic and archaeological resources for this natural-gas fired power plant in Oxnard, California.
- **Mission Rock Energy Center.** Mr. Braun conducted analyses of impacts to ethnographic and archaeological resources for this natural-gas fired power plant in Santa Paula, California.
- **Desert Renewable Energy Conservation Plan.** Mr. Braun conducted analyses of impacts to ethnographic and archaeological resources for this planning document for renewable energy in the California Desert.
- **Palmdale Energy Project.** Mr. Braun conducted analyses of impacts to ethnographic and archaeological resources for this natural-gas fired power plant in Palmdale, California.
- **Pomona Repower Project.** Mr. Braun conducted analyses of impacts to ethnographic and archaeological resources for this natural-gas fired power plant in Pomona, California.

Aspen Environmental Group.....2012-2014

California Energy Commission. Under contract with the CEC as an employee of Aspen, Mr. Braun participated in the following projects:

- **Rio Mesa Solar Electric Generating Facility, Cultural Resources Staff Assessment (2012-2013).** Mr. Braun conducted analyses of impacts to archaeological resources, ethnographic resources and ethnographic landscapes through fieldwork, archival research and interviews with local Native American tribal representatives from the area near the 3,960 acre 500 MW solar concentrating thermal plant located on the Palo Verde Mesa near Blythe, California. Important resource issues included impacts to trail systems, prehistoric archaeological sites, plant and animal resources, and other elements that are part of a Native American tribe's ethnographic landscape. This was a large, complex project, coordinated with other solar projects and with Native American representatives from the Fort Mojave Tribe, the Chemehuevi Tribe, the Colorado River Indian Tribes, the Agua Caliente Band of Cahuilla Indians, and the Fort Yuma Quechan Tribe.
- **Hydrogen Energy California, Cultural Resources Staff Assessment (HECA) (2012-present).** Mr. Braun conducted analyses of impacts to ethnographic resources and ethnographic landscapes through consultation with local Native American Tribal representatives and archival research of the area near the 453 acre 400 MW Integrated Gasification Combined Cycle (IGCC) power plant and associated linear facilities. Important resources include known and unknown burials, traditional gathering and hunting areas, and other ethnographic resources. This project was coordinated with the Department of Energy and Native American representatives from the Tejon Indian Tribe and the Tubatulabal of Kern County.
- **Palen Solar Electric Generating Facility, Cultural Resources Staff Assessment (2013).** Mr. Braun is conducting analyses of impacts to ethnographic resources through fieldwork, archival research and interviews with Native American tribal representatives from the area near the 3,794 acre concentrating solar thermal plant located near Desert Center, California. He is the lead author of the ethnographic technical report, and co-author to the Staff Assessment issued by the CEC. Important resource issues include impacts to cultural landscapes, components of which include trail systems, archaeological sites, plant and animal resources, rock art and earth figures, among intangible spiritual and religious values. This is a large, complex project coordinated with other solar projects and with Native American representatives from the Chemehuevi Tribe, Colorado River Indian Tribes, Fort Mojave Tribe, Fort Yuma Quechan Tribe, Cocopah Indian Tribe, Morongo Band of Cahuilla Indians, San Manuel Band of Mission Indians, Agua Caliente Band of Cahuilla Indians, Cabazon Band of Mission Indians, and Soboba Band of Luiseño Indians.
- **Desert Renewable Energy Conservation Plan, southern CA desert (DRECP) (2013-present).** The goal of this planning project is to generate an efficient and effective biological mitigation and conservation program providing renewable project developers with permit timing and cost certainty under the federal and California Endangered Species Acts while at the same time preserving, restoring and enhancing natural communities and related ecosystems. The DRECP Plan Area consists of approximately 22.5 million acres of federal and non-federal California desert land in Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego counties. Mr. Braun is an author of the Cultural Resources and Tribal Interest chapters of the associated EIR/EIS (BLM and CEC lead agencies).
- **Genesis Solar Energy Project, Cultural Resources Compliance (2010-2014).** Mr. Braun reviewed all of the licensees' submittals and actions related to compliance with cultural resources conditions of certification and providing recommendations to staff regarding acceptability. The GSEP is a large, complex project for which cultural resources compliance review has been coordinated with other

solar projects, with BLM as the federal lead agency, and with local Native American tribal representatives. This effort included reviewing more than 3100 daily monitoring logs, 30 monthly compliance reports, and more than 950 DPR forms associated with the collection of more than 2700 artifacts.

Western Power Administration, Desert Southwest Region. Under contract with WAPA as an employee of Aspen, Mr. Braun participated in the following project:

- **Parker-Blythe Transmission Line 1 & 2, Cultural Resources Survey (2014).** Mr. Braun co-led an archaeological field crew in re-recording 56 archaeological sites, and providing recommendations concerning the NRHP eligibility of these resources. Important resources included trails, lithic scatters, petroglyphs, intaglios, ceramics, and cleared circles. The transmission line is located on land managed by the Colorado River Indian Tribes, several different BLM field offices, and the BOR, and this project required coordination for permits and fieldwork.

Other California projects

- **Renewable Energy General Plan Amendment, Opportunities and Constraints Study (2013-present).** Inyo County is proposing to amend their General Plan to designate some lands for renewable energy development. As part of this amendment, an Opportunities and Constraints Technical Study was conducted to identify areas of the County that would be less likely to impact cultural resources. Mr. Braun worked closely with GIS specialists to construct cultural resources sensitivity maps to identify those less sensitive areas.
- **California Valley Solar Ranch, Cultural and Paleontological Resources Compliance (2012-2013).** The CVSR project is a 250 MW solar photovoltaic power plant on the Carrizo Plain in rural San Luis Obispo County. The solar arrays for the project will cover nearly 2,000 acres. Mr. Braun served as an assistant technical reviewer for cultural resources and paleontology during the compliance process. Duties included the review of licensees' submittals and actions related to compliance with cultural resources and paleontological conditions of approval and providing recommendations to San Luis Obispo County regarding acceptability.
- **Renewable Energy General Plan Amendment, Opportunities and Constraints Study (2013-present).** San Luis Obispo County is proposing to amend their General Plan to designate some lands for renewable energy development. As part of this amendment, an Opportunities and Constraints Technical Study was conducted to identify areas of the County that would be less likely to impact cultural resources. Mr. Braun worked closely with GIS specialists to construct cultural resources sensitivity maps to identify those less sensitive areas.
- **Santa Margarita Quarry Expansion Project, Environmental Impact Report (2013-present).** The Santa Margarita Quarry is an aggregate quarry along the Salinas River in San Luis Obispo County, and is proposing to expand existing operations by approximately 50 acres and is applying for a Conditional Use Permit to expand. A Reclamation Plan is also being proposed, and Mr. Braun is authoring the corresponding cultural and paleontological resources EIR section and conducting Native American outreach with those groups interested in the project.
- **Donnell Basin Flood Control Project, Initial Study and Mitigated Negative Declaration (2013).** Mr. Braun conducted archaeological survey of the 65 acre Donnell Basin and co-authored the technical report. Donnell Basin is an area proposed by the San Bernardino Flood Control District to be used for overflow in the Twenty-nine Palms area. Important resource issues included a prehistoric quarry and built-environment resources.

- **Mission Channel and Zanja Creek Routine Maintenance Project, Technical Report and Mitigated Negative Declaration (2014-present).** Under contract with the Department of Public Works, Flood Control District Mr. Braun conducted a cultural resources record search, and is the co-author a technical report and IS/MND sections associated with vegetation management, channel shaping, slope repairs and sediment removal along approximately 8 miles of the Mission Channel/Zanja Creek in Redlands, CA. The Mission Channel/Zanja Creek was built in 1819 and is listed on the National Register of Historic Places.
- **Costa Photovoltaic Solar Energy Facility, Cultural Resources Reconnaissance Survey and Technical Report (2013).** Mr. Braun conducted a cultural resources reconnaissance survey and co-authored a technical report in support of a CEQA review and preparation of an Initial Study for a proposed 170 acres solar energy facility on private land in Kings County, California. Cultural resources identified and evaluated include segments of an historic irrigation canal.
- **Gales Photovoltaic Solar Energy Facility, Cultural Resources Reconnaissance Survey and Technical Report (2013).** Mr. Braun conducted a cultural resources reconnaissance survey and co-authored a technical report in support of a CEQA review and preparation of an Initial Study for a proposed 20 acre solar energy facility on private land in Kings County, California. Cultural resources identified and evaluated include segments of two historic irrigation canals.
- **Venable Photovoltaic Solar Energy Facility, Cultural Resources Reconnaissance Survey and Technical Report (2013).** Mr. Braun conducted a cultural resources reconnaissance survey and co-authored a technical report in support of a CEQA review and preparation of an Initial Study for a proposed 20 acre solar energy facility on private land in the City of Blythe, Riverside County, California.
- **Zuni Photovoltaic Solar Energy Facility, Cultural Resources Reconnaissance Survey and Technical Report (2013).** Mr. Braun conducted a cultural resources reconnaissance survey and co-authored a technical report in support of a CEQA review and preparation of an Initial Study for a proposed 20 acre solar energy facility on private land in the town of Apple Valley, San Bernardino County, California.
- **Desert Harvest Solar Project (CEQA-equivalent document) (2012).** Under contract with EDF Renewable Energy, Mr. Braun assisted senior cultural resources staff with writing the cultural resources, Native American concerns, and paleontology sections of the Desert Harvest EIS. The proposed project is a 1,280 acre 150 MW photovoltaic generating facility in the Chuckwalla Valley near Desert Center, California.

Argonne National Laboratory (Environmental Sciences Division).....2010-present

The Environmental Sciences Division at Argonne conducts environmental analyses in compliance with NEPA and other applicable environmental regulations. The main Argonne Campus is located in Lemont, Illinois with satellite branches in Denver, Colorado and Washington, D.C.

- **Programmatic Environmental Impact Statement for Solar Energy Development in Six Western States (2010-2012).** Under contract with the BLM, Mr. Braun provided technical expertise by developing, synthesizing, and interpreting prehistoric and historic contexts, ethnohistoric contexts, paleontological contexts and Native American concerns in order to assess the impacts to these resources at the programmatic level and a more focused Solar Energy Zone level. The six western states that were analyzed in this study were California, Nevada, Arizona, Utah, New Mexico, and Colorado. This research involved archival studies, communication and coordination with cooperating partners in the BLM, National Park Service (NPS), State Historic Preservation Officers (SHPO), as well

as Native American tribal governments, and responding to and addressing comments from cooperators and the public.

- **Oil Shale and Tar Sands Programmatic Environmental Impact Statement (2011-2012).** Mr. Braun assisted senior cultural resource staff in updating a Class I survey based on GIS data from SHPOs in Wyoming, Colorado and Utah for the BLM. Through the analysis of this data, a predictive model was developed in determining the probability of encountering significant archaeological sites in the affected areas proposed for oil shale and tar sands development.
- **Generic Environmental Impact Statements for License Renewals for the Nuclear Regulatory Commission (NRC) (2010-2012).** Under contract with the Nuclear Regulatory Commission, Mr. Braun conducted archival and site specific analyses for impacts related to the relicensing of NRC permitted facilities for the Diablo Canyon Nuclear Power Plant (California), the Davis Besse Nuclear Power Station (Ohio), and the Grand Gulf Nuclear Station (Mississippi).
- **2012-2012 Outer Continental Shelf Oil and Gas Programmatic Environmental Impact Statement (2012).** Mr. Braun conducted archival research related to whaling practices by indigenous groups on the North Slope, the Chukchi Sea and the St. Lawrence Island regions of Alaska. This information was then used to analyze potential impacts that off-shore oil and gas leases issued by the Bureau of Ocean Energy Management, Regulation and Enforcement would have on indigenous whaling practices.
- **Uranium Leasing Program Programmatic Environmental Impact Statement (2012).** Mr. Braun conducted research analyzing potential impacts to cultural resources in uranium mining lease tracts in Colorado. This research was conducted in conjunction with the Department of Energy which issues the leasing permits and the Colorado and Utah SHPOs.
- **Long-Term Monitoring Strategies for Cultural and Natural Resources Affected by Utility Scale Solar Energy Development on BLM lands (2011).** Mr. Braun collaborated in a multi-disciplinary group to develop strategies for the protection and monitoring of significant resources affected by large-scale solar energy projects on BLM land in California, Nevada, Arizona, Utah, New Mexico and Colorado.
- **National Register of Historic Places Evaluation of Five Test Grids and Buildings at Dugway Proving Ground, Dugway, Utah (2011).** Under contract with the Department of Defense, Mr. Braun conducted field work and evaluations of historic properties related to the chemical and biological weapons testing that occurred at Dugway Proving Ground in the post-World War (WW) II and Cold War Eras. Evaluations were conducted of large-scale grids which were laid out in a pattern to collect sampling information about the rate of dispersal and efficacy of the agent being tested from the air or the ground, as well as evaluations of a naval gun and a WW II Era tar-paper structure.
- **National Register of Historic Places Evaluation of the Intense Pulsed Neutron Source (IPNS) at Argonne National Laboratory, Argonne, Illinois (2012).** Under the direction of senior cultural resources staff, Mr. Braun conducted research related to the history of neutron studies at Argonne and other facilities to evaluate the significance of the IPNS located at Argonne. The IPNS was the first neutron accelerator of its kind constructed in the world, and this user-facility provided physicists extensive knowledge regarding the behavior of high-speed neutron activity.
- **Phase I Cultural Resources Survey for the Materials Design Laboratory at Argonne National Laboratory, Argonne, Illinois (2010).** Mr. Braun assisted senior cultural resources staff in planning, conducting and authoring a Phase I survey for cultural resources potentially affected by construction of the Materials Design Laboratory and ancillary facilities.

American Resources Group.....(2012)

American Resources Group is a cultural resources firm based out of Carbondale, Illinois.

- **Keystone XL Pipeline Phase I Cultural Resources Survey (2012).** Mr. Braun conducted a pedestrian survey in Eastern Nebraska for a re-alignment of the controversial Keystone XL Pipeline.

Professional Affiliations and Training

- Section 106 Agreement Documents (National Preservation Institute, 2012)
- Consultation and Protection of Native American Sacred Lands (National Preservation Institute, 2012)
- NEPA and the National Historic Preservation Act (ICF, 2013)
- CEQA and Historic Resources (CPF, 2013)
- UXO Hazards Training

**DECLARATION OF
HUEI-AN (ANN) CHU**

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

1. I am presently employed by the California Energy Commission in the Engineering Office of the Siting, Transmission and Environmental Protection Division 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 Public Health, Transmission Line Safety and Nuisance** for the **Puente Power Project** based on my independent analysis of the Application for Certification 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 issue(s) 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: 12/12/2016

Signed: Huei-An Chu

At: Sacramento, California

Huei-An (Ann) Chu

1516 Ninth Street, MS-46, Sacramento, CA 95814
Phone: 916-651-0965, 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: HARP, SAS, Stata, Minitab, ArcGIS, ArcView, ArcInfo, Stella, Crystal Ball, ISC, ERMapper, Microsoft Excel, PowerPoint, Word.

WORK EXPERIENCE

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

- Independently performs responsible, varied analyses assessing air quality and public health impacts of energy resource use and large electric power generation projects in California.
- 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.
- 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 CO₂ Uptaking"
- Used remote sensing (ERMapper) to investigate the role of forest in the uptake of CO₂.
- 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

PUBLICATIONS (SELECTED LIST)

Irva Hertz-Picciotto, Deborah H. Bennett, **Huei-An Chu**, "Phthalates in Relation to Autism and Developmental Delay: Exploratory Analyses from the Charge Study". ISEE, Sept 13-16, 2011, Barcelona, Spain

Huei-An Chu and Douglas J. Crawford-Brown, "A Probabilistic Risk Assessment Framework to Quantify the Protectiveness of Alternative MCLs for Arsenic in Drinking Water", *Journal of American Water Works Association*. (Being revised)

Huei-An Chu and Douglas J. Crawford-Brown, "Letter to the Editor: Inorganic Arsenic in Drinking Water and Bladder Cancer: A Meta-Analysis in Dose-Response Assessment", *International Journal of Environmental Research and Public Health*, 2007, 4(4), 340-341.

Huei-An Chu and Douglas J. Crawford-Brown, "Inorganic Arsenic in Drinking Water and Bladder Cancer: A Meta-Analysis in Dose-Response Assessment", *International Journal of Environmental Research and Public Health* 2006, 3(4), 316-322.

S.L. Lo and **H.A. Chu**, "Evaluation of Atmospheric Deposition of Nitrogen to the Feitsui Reservoir in Taipei", *Water Science & Technology*, 2006, 53(2), 337-344.

CSE Consulting and the UNC Carolina Environmental Program (CEP), "Environmental Footprint Assessment", Report for Bank of America, Aug, 2006.

Huei-An Chu, "Achieving Environmental Justice in North Carolina Public Participation Policy", Report for Clean Water for North Carolina (CWFNC), Aug, 2005.

Huei-An Chu, "Arsenic and its Health Implications", Report for University Center for International Studies Graduate Travel Awards, 2002.

PRESENTATIONS (SELECTED LIST)

Guest Speaker, "Human Health Risk Assessment – Arsenic in Drinking Water as an Example". Tunghai University, Taichuang, Taiwan. (December 16th, 2010)

Guest Speaker, "Environmental Problems in Developing Countries", Course Title: Developing Countries, Department of Economics, CSU-Chico (October 31st, 2008)

"Cumulative Risk Assessment for Volatile Organic Compounds (VOCs) from Petrochemical Plants in Southern Taiwan". Oral Presentation in Society of Risk Analysis (SRA) 2007 Annual Meeting, San Antonio, TX. (December, 2007)

Guest Speaker, "Arsenic in Drinking Water", Course Title: Environmental Geology, CSU-Chico. (November 13th, 2007)

"Risk-Based Environmental Regulation for Arsenic in Drinking Water", Oral Presentation in Department of Environmental Health Seminar, East Tennessee State University (February 2nd, 2007)

"A Framework of Risk-based Decision Making by Characterizing Variability and Uncertainty Probabilistically: Using Arsenic in Drinking Water as an Example", Oral Presentation in Society of Risk Analysis (SRA) 2006 Annual Meeting, Baltimore. MD. (December, 2006)

"A New Policy Tool to Choose Water Quality Goals under Uncertainty", Poster Presentation in Society of Risk Analysis (SRA) 2006 Annual Meeting, Baltimore, MD. (December, 2006)

"A framework of Risk-Based Decision Making by Characterizing Variability and Uncertainty Probabilistically: Using Arsenic in Drinking Water as an Example", Oral Presentation for National Center for Environmental Assessment (NCEA), Environmental Protection Agency (EPA). (October 26th, 2006)

"Probabilistic Risk Assessment for Arsenic in Drinking Water", Poster Presentation in Carolina Environmental Program (CEP) 2006 Symposium on Safe Drinking Water, Chapel Hill, NC. (March, 2006)

"Probabilistic Risk and Margins of Safety for Water Borne Arsenic", Poster Platform Presentation in Society of Risk Analysis (SRA) 2005 Annual Meeting, Orlando, FL. (December, 2005)

"Using Meta-Analysis in Dose-Response Analysis – Risk Assessment of Arsenic in Drinking Water as an Example", Poster Platform Presentation in Society of Risk Analysis (SRA) 2004 Annual Meeting, Palm Springs, CA. (December, 2004)

DECLARATION OF
Jonathan Fong

I, Jonathan Fong, declare as follows:

1. I am presently employed by the California Energy Commission in the Siting, Transmission and Environmental Protection Division as Energy Resources Specialist III Supervisor.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I helped prepared the staff testimony on **Traffic and Transportation** for the Puente Power Project based on my independent analysis of the Application for Certification 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 issue 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: 11/2/2016

Signed: _____

At: Sacramento, California



Jonathan Fong

EDUCATION

University of California, Irvine- June 2005

Environmental Analysis and Design, Specialization in Planning and Policy Studies

WORK EXPERIENCE

California Energy Commission

Environmental Office, Community Resources Unit Supervisor- June 2016 to present

Supervisor in the Environmental Office responsible for the areas of Traffic and Transportation and Visual Resources. Oversee technical experts and consultants in evaluating environmental impacts associated with the siting of powerplants under the jurisdiction of the Energy Commission.

California Energy Commission

Compliance Office, Compliance Project Manager- August 2014 to June 2016

Project Manager responsible for regulatory oversight for the construction, operation and closure of powerplants under the Energy Commission's jurisdiction. Provided oversight to ensure that projects comply with their approved conditions of certification.

California Energy Commission

Environmental Protection Unit, Planner II- August 2012 to August 2014

Technical expert in Land Use and Traffic and Transportation, Evaluated projects and determine potential impacts in accordance with federal, state and local regulations. Prepared expert testimony evaluating project compliance and proposed mitigation measures to reduce impacts.

The Lyle Company

Site Acquisition and Zoning Specialist, Team Lead- January 2010 to November 2011

Project lead in permitting projects for major wireless carriers. Provided oversight of engineers and other technical staff in order to meet strict jurisdiction requirements and which met client goals. Would routinely present projects at public hearings to decision makers and develop alternatives for problematic sites.

County of El Dorado

Planning Services, Associate Planner - October 2005 to January 2010

Land Use Planning Project Planner. Processed discretionary projects such as tentative subdivision maps, and general plan amendments. In charge of preparing policy review in staff reports and CEQA review. Responsible for preparing staff reports and presentations for public hearing.

City of Santa Ana

Planning and Building Agency, Planning Intern- November 2004 to August 2005

Reviewed plans for various residential and commercial developments in the city. Worked independently and in different teams to perform various planning duties. Responsible for creating, maintaining and updating various databases of city resources.

Jones and Stokes

Environmental Analysis Team, Student Intern – June 2004 to August 2004

Assisted the Environmental Analysis team with gathering data and writing CEQA and NEPA documents. Wrote elements of Regional Master Plan for the State of Wyoming.

DECLARATION OF BRETT FOOKS

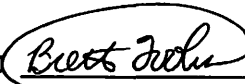
I, Brett Fooks, declare as follows:

1. I am presently employed by the California Energy Commission in the Engineering Office of the Siting, Transmission, and Environmental Protection Division 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 testimonies on Hazardous Materials Management and on Worker Safety / Fire Protection for the Puente Power Project based on my independent analysis of the Application for Certification 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 issue 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: November 8, 2016

Signed: _____



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).

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

Ashley Gutierrez

I, Ashley Gutierrez, declare as follows:

1. I am presently employed by the California Energy Commission in the Siting and Compliance Office of the Energy Facilities Siting Division as a Planner I (EFS).
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I helped prepare the staff testimony on Land Use for the Puente Power Project based on staff's and my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and staff's and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue 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: 10/25/16

Signed: _____

At: Sacramento, California



Ashley Gutierrez

(916) 879-6250 a.ratchford7@gmail.com 2016 9th Street, Sacramento, CA. 95818

Objective

To utilize my technical knowledge and project management skills in a mid-level professional position related to energy facility siting planning where I can reduce environmental impacts involved with power plant development.

Experience

PLANNER I (EFS), CALIFORNIA ENERGY COMMISSION; SACRAMENTO, CA — SEPT 2016-CURRENT

Independently performed technical analyses for facility siting cases and planning studies in the areas of socioeconomics, land use, environmental justice, traffic and transportation, and visual resources. Provided technical expertise and served as a member of interdisciplinary teams evaluating the environmental and socioeconomic effects of proposed energy facilities, policies and plans for energy development in order to satisfy the requirements of the Warren-Alquist Act and the California Environmental Quality Act (CEQA). Also performed as a working team leader on less complex projects or coordinate the activities of other technical specialists in the evaluation of energy projects.

ENERGY ANALYST, CALIFORNIA ENERGY COMMISSION; SACRAMENTO, CA — JULY 2015-SEPT 2016

Prepared independent assessments and final analyses of the socioeconomic, environmental justice, land use, traffic and transportation, and visual resource aspects of Application for Certification, Major Amendments and Minor Amendments. Identified, described, and analyzed issues related to electrical energy production facilities, alternative energy technologies, energy research and development and Commission programs and policies which included the preparation of sections of initial studies and environmental impact reports. Coordinated and worked with federal, state, regional and local governments; land use planning, transportation and related agencies. Examined and evaluated existing and proposed laws, ordinances, regulations, standards and policies pertinent to the technical areas listed above. Performed site visits when necessary.

ADMINISTRATIVE ASSISTANT, NO ON 46 CAMPAIGN; SACRAMENTO, CA — AUG 2014-NOV 2014 (TEMP)

Established statewide campaign yard-sign distribution locations. Processed reimbursement forms & daily correspondence with legal department to ensure checks were disbursed. Received, directed, & responded to phone inquiries. Maintained office functionality by ensuring materials were available.

INTERN & VOLUNTEER, GGNRA; SAN FRANCISCO, CA — AUG 2011-SEP 2013

Educated diverse groups of the importance of biodiversity in the San Francisco region. Participated with the identification & collection of critically rare & endangered plants. Performed the role of site steward for Ft. Baker & addressed invasive species management issues.

Education

San Francisco State University — Bachelor's Degree in Geography, Concentration in Natural Resource Management 2013

Skills

Excellent interpersonal skills & the ability to successfully work within a larger team environment. The ability to gather, compile, analyze, & interpret written & numerical research data. Advanced skills with Microsoft Excel & Microsoft Word programs. Ability to effectively write & edit technical program information.

References

Jon Fong, CEC (916) 654-5005

Steve Kerr, CEC (916) 651-0483

Dave Flores, CEC (916) 524-5195

Amanda Stennick, CEC (916) 837-1670

Coty Sifuentes-Winter, GGNRA- (415) 385-4226


Jim DeBoo, No on 46 Campaign- (916) 806-1526

DECLARATION OF MARK HESTERS

I, Mark Hesters, declare as follows:

1. I am presently employed by the California Energy Commission in the Strategic Transmission Planning and Corridor Designation Office of the Siting, Transmission, and Environmental Protection Division 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 Transmission System Engineering for the Puente Power Project based on my independent analysis of the Application for Certification 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 issue 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: 10/27/2014 Signed: 

At: Sacramento, California

Mark Hesters

916-654-5049

mark.hesters@energy.state.ca.us

Qualifications

- Analyzed the reliability impacts of electric power plants for nine 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), production cost models (GE MAPS), 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.
- Energy Commission representative to the Western Electric Coordinating Council Operations Committee.

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

Jon R. Hilliard, AICP

I, Jon R. Hilliard, declare as follows:

1. I am presently employed by the California Energy Commission in the Siting, Transmission and Environmental Protection Division as a biologic resources supervisor.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I helped prepare the staff testimony on Biological Resources for the Puente Power Project based on staff's and my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and staff's 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: 12-8-2016

Signed: 

At: Sacramento, California

Jon R. Hilliard, AICP

◆ jrhplanning@att.net; jon.hilliard@energy.ca.gov

Profile

Senior-level project manager, environmental and land planning professional with extensive experience managing small and large-scale public and private environmental compliance, infrastructure, planning and development projects to timely and successful completion.

Education, Certification & Associations

- ◆ Bachelor of Arts, Urban and Regional Planning, Texas State University (1987)
- ◆ Post-graduate courses in Project Management, Planning and Environmental Law, Resilience and Sustainability, Real Estate Development - UC Davis
- ◆ Completion of Project Management Body of Knowledge (PMBOK) Course – GW University
- ◆ American Institute of Certified Planners (AICP) Certification
- ◆ Association of Environmental Professionals (AEP)

Professional Experience and Skills

- ◆ POWER GENERATION PROJECT SITING AND ELECTRICITY SYSTEM OPERATIONS AND PLANNING
- ◆ ENVIRONMENTAL, NATURAL RESOURCES AND CULTURAL RESOURCES PROJECT MANAGEMENT (NEPA AND CEQA DOCUMENTS - EIS/EIR/EA/MND; CWA SEC. 404 AND 401; ESA SEC. 7 AND 10; HCP/NCCP'S; NHPA SEC. 106 AND SB 52 CONSULTATION AND COMPLIANCE)
- ◆ URBAN PLANNING & POLICY (Municipal and County Planning Management; Urban and Neighborhood Design; Subdivision Map Act Compliance; Development Agreements; Public Infrastructure Planning)
- ◆ REAL ESTATE DEVELOPMENT (Due Diligence; Property Acquisition; Project Planning and Entitlements; Finished Project Delivery)
- ◆ PROFESSIONAL CONSULTING PRACTICE (Project Management and Controls, Technical Writing & Analysis, Proposals, Work Breakdown Structures and Estimating; Marketing, Sales & Client Management)
- ◆ PUBLIC OUTREACH (Public Engagement; Workshops, Spanish Fluent - professional speaking, reading, writing).
- ◆ EMERGENCY PLANNING (NIMS, SEMS, ICS, State-wide ESF/ EF Development)

Employment History

State of California Energy Commission (CEC) (Sacramento, CA)

July 2016 to Present

Energy Resources Specialist III (Biological Resources Unit Supervisor)

Biological Resources Unit Supervisor in the Siting, Transmission and Environmental Protection (STEP) Division of the California Energy Commission, responsible for all facets of the review and management of the technical work of staff biologists and support personnel. Duties include supervising the work performance of Unit staff, and QA/QC of CEQA-equivalent documents prepared for renewable (solar, geothermal) and conventional (natural gas) power projects that are presented before the Commission in accordance with the administrative law process mandated by state statute. Serving as Lead on interagency coordination with other state departments (CDFW, Coastal Commission, Lands Commission, BCDC), federal agencies (Fish and Wildlife Service, Bureau of Land Management, National Parks Service) and private entities as part of the Energy Commission's certification process for new, expanded, altered or de-commissioned facilities. Responsible for overseeing monitoring and reporting obligations for CEC-licensed facilities during construction and throughout operation.

State of California Energy Commission (CEC) (Sacramento, CA)

July 2014 to July 2016

Planner III – Siting Project Manager

Project Manager in the Siting Unit of the Siting, Transmission and Environmental Protection (STEP) Division of the California Energy Commission, responsible for all facets of the review and management of Applications for Certification (AFCs) for new power plant projects under the Commission's jurisdiction. My duties include review of technical documents and studies submitted in support of the AFCs, coordinating the preparation, review and editing/ quality control of technical environmental and engineering studies generated by Division staff and by contract consultants, acting as primary point of contact with power plant applicants, intervenors, outside agencies (local, state and federal), and the general public. Responsible for making presentations of proposed projects at workshops, meetings and hearings on proposed power plant projects and responding to inquiries from meeting participants. I provide technical expertise and support for internal projects prepared by the Unit, including updates to the Siting review and processing procedures, Siting Regulations Update, and collaborating on preparing standardized document models for all Siting Unit deliverables.

Jon R. Hilliard, AICP

State of California Energy Commission (CEC) (Sacramento, CA)

April 2013 to July 2014

Planner III - Cultural Resources Unit Supervisor

Planner III and Cultural Resources Unit Supervisor in the Siting, Transmission and Environmental Protection (STEP) Division of the California Energy Commission, leading the review, analysis and expert testimony for archaeological, ethnographic and historic built-environment resources impacted by proposed large-scale power generation facilities located throughout the state. Responsibilities included supervising the work performance of Unit staff, and QA/QC of CEQA-equivalent documents prepared for renewable (solar, geothermal) and conventional (natural gas) power projects that are presented before the Commission in accordance with the administrative law process mandated by state statute. Oversaw the interagency coordination with other state departments (Cal SHPO, Caltrans, Native American Heritage Commission) federal agencies (Bureau of Land Management, National Parks Service, US Department of Energy), and sovereign government authorities (numerous Native American Tribes) as part of the Energy Commission's certification process for new, expanded, altered or de-commissioned facilities.

Leidos/(formerly SAIC) (Sacramento, CA)

December 2010 – March 2013

Regional NEPA/CEQA Project Manager

Project Management and Task Order Management on HCP's/ NCCP's (Bay Delta Conservation Plan for CA DWR, Butte Regional Conservation Plan for BCAG, Yolo Natural Heritage Program for Yolo County); CWA Section 404 Regional Permits and 401 Programmatic Certification strategies; State Emergency Planning (Emergency Functions Development for CA OES); Marketing, Proposal Development and Budgeting, including working as Capture Manager for over \$3.8M in successful procurements.

JRH Planning (Vacaville, CA)

November 2009 - December 2010

Owner/ Principal

Worked as sole proprietor of my own consulting practice assisting partner firms and private clients (Jacobs Engineering, REY Engineering, GW Properties and Lilley Planning Group) in marketing and business development for on-call and project-specific environmental, planning and policy implementation work with local governments and private developers throughout Northern California.

Jacobs Engineering, Inc. (Sacramento, CA)

November 2006 - August 2009

Senior Urban Planner/ Project Manager – Urban Design and Planning Studio

Managed the land use and environmental projects for a variety of public and private sector clients as part of a multi-disciplined engineering consulting firm. Responsible for the complete quality management of client deliverables such as development plans, design guidelines, policy documents, technical reports and environmental impact studies (CEQA and NEPA compliance, CWA, ESA, NHPA and Environmental Justice), and supervising the work of support technical staff.

GSJ, Inc. (Roseville, CA)

October 2005 - October 2006

Project Manager

Project Manager for a private equity firm & added over \$4M value to RE portfolio assets. Responsible for all facets of land acquisition, entitlements and development of residential and commercial projects including advance research, due diligence, management of local land use and environmental entitlements, budgeting, and oversight of work activities to the ultimate delivery of a successful project.

City of Fairfield (Solano County, CA)

November 1989 - October 2005

Senior Planner – Department of Community Development

Managed the review and environmental compliance for the city's most complex projects, including the management of over 250 development and environmental review applications over a 16 year tenure. Directed the city's inter-agency review processes for development proposals and capital improvements projects. Managed the CEQA and NEPA compliance for the city's capital improvements program(s), and prepared topical EIR and EIS resource sections to timely competition. Mentored and trained lower-level staff.

Select Projects

CA Energy Commission (CEC)

Current and past projects at the CEC include the following:

Puente Power Project - Oxnard, Ventura County, CA. Served as Project Manager for the siting process for a proposed 262 MW gas fired, simple-cycle replacement facility for an existing generation facility that must alter operations due to a state policy requiring phase-out of once-through ocean water cooling. Responsible for managing all facets of the CEC siting process for the project, including: coordinating analysis of 22 technical areas of environmental

Jon R. Hilliard, AICP

and functional review for the project; engaging with stakeholders, intervenors and the public; representing the CEC STEP Division in project discussions with the applicant; and, representing CEC staff before the Commission's delegated Committee and Hearing Officer deliberating approval of the project.

Carlsbad Energy Center Project - San Diego County, CA. Served as a project manager for the review and environmental entitlements for a 600 MW rebuild of a gas fired, simple-cycle power plant on 37 acres of land in Carlsbad, California. Responsibilities included coordinating preparation of the Preliminary and Final Staff Assessment (equivalent to DEIR, FEIR), and representing the state's interest in the administrative hearings for the project.

Palen Solar Holdings, LLC – Riverside County, CA. Served as Cultural Resources team manager for the review and approval of applicant geoarchaeological studies, and in-house preparation of an ethnography evaluation, for a planned 500 MW solar energy facility on 3800 acres. Project entailed a landscape approach to cultural resources review, as required by DOI Order 3330 (10-31-2013).

Genesis Solar Electric Project – Riverside County, CA. Served as project lead for a multi-disciplined crew of archaeologists and ethnographers implementing a programmatic mitigation agreement between the State Cal SHPO, US DOI BLM and stakeholder Native American Tribes to address resources encountered during construction and compliance phase of a new solar generation facility on 1800 acres, including the goal of obtaining state and federal historic designation for an adjacent resource district (Ford Dry Lake).

Desert Renewable Energy Conservation Plan EIR/EIS – Kern, Riverside and San Bernardino Counties, CA. Reviewed and provided comment and suggested revisions for the topical sections of the administrative draft CEQA, NEPA, NCCPA and ESA compliance documents for a multi-agency and multi-jurisdictional conservation plan aimed at balancing environmental conservation with robust goals for renewable energy project development in the desert regions and adjacent lands in the counties of Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino and San Diego.

CEC Rules of Practice and Procedure Update (Title 20, CCR, (Ch. 6 Environmental Protection) Sections 1970-2308). Lead the preparation of major revisions to the CEQA Cultural Resources and NHPA compliance components of the Commission facility siting review and approval statutes and procedures.

Leidos (SAIC)

State of California Emergency Functions Development - Cal Emergency Management Agency (OES). As Project Manager, oversaw the work and administration of a state-wide effort by a technical team of Subject Matter Experts (SME's) assisting in the development of eighteen discrete Emergency Functions annexes to be incorporated in a 2013 update to the State of California Emergency Management Plan. Responsibilities included internal direction of staff resources, client representation, meeting facilitation, public and stakeholder outreach and project QA-QC and controls.

Butte Regional HCP/NCCP – Butte County Association of Governments. As Senior Planner, coordinated preparation of a Wetlands and Aquatics Resources program that will be used for Section 404 Clean Water Act (CWA) compliance and Section 1602 CA Fish and Game Code (FGC) compliance as part of a regional habitat conservation plan covering approximately 620,000 acres of lowland Butte County and including portions of the Feather River. The project required coordination among nine governmental agencies including BCAG, Butte County, the cities of Chico, Oroville, Gridley and Biggs, the USA Army Corp of Engineers, the US Fish and Wildlife Service and the California Department of Fish and Game. Responsibilities also included assisting in project administration and general support of documents addressing grasslands, wetlands (including vernal pools), oak woodlands, riverine and riparian habitats, and agricultural lands.

Yolo County Natural Heritage Program Plan – Yolo JPA. As Senior Planner, prepared programmatic strategy for CWA Section 404 compliance (Regional Permit) and assisted in project management and Quality Assurance/ Quality Control of documents for a habitat conservation plan of Yolo County, addressing a variety of natural communities including uplands, riparian, and agricultural lands and over 36 special status species.

Bay Delta Conservation Plan (BDCP) – California Natural Resources Agency. BDCP is a joint HCP/NCCP for the Sacramento-San Joaquin Delta to provide Federal and California Endangered Species Act compliance for water deliveries from Federal and State water projects supplying over 25 million people and 2.5 million acres of farmland. Responsibilities included assisting in project management and controls, pursuant to the requirements of the contract procurer, the State Department of Water Resources.

Jon R. Hilliard, AICP

Marine Corp School of Infantry – USMC Base Camp Pendleton, San Diego County, CA. As Senior Planner and Environmental Analyst, prepared documentation for the Environmental Assessment and Description of Alternatives for a series of upgrades to the School of Infantry/ RECON Company Base Recon Course and Instruction Facilities. Project analyzed the potential impacts of a new classroom building and ancillary training fields on adjacent riparian habitats and endangered species (southwestern arroyo toad, *bufo californicus*) known to occur in the area.

Jacobs Engineering

San Luis National Wildlife Refuge, West Bear Creek Unit Access Improvements – US Fish and Wildlife Service. As environmental entitlements manager, prepared and coordinated the technical studies to assist the US Fish and Wildlife Service in obtaining encroachment permits and CEQA approvals from the California Department of Transportation (Caltrans) for access improvements from a State Highway into San Luis National Wildlife Refuge in Merced County, CA. His efforts moved the project forward after seven years of delay due to agency miscommunication.

North County Corridor (State Route 120) Route Adoption Program – Stanislaus Council of Governments. As Environmental Coordinator, prepared the Community Impact Assessment of potential physical, socioeconomic and public policy impacts associated with a 2,000 foot-wide corridor for the planned interregional route between Salida and Oakdale in Stanislaus County, CA. He coordinated with impacted cities to avoid sensitive areas and explore ways to adjust the corridor alignment to benefit strategic locations.

Solano County Expansion and Marsh Development Permit - Universal Propulsion Company. As Project Manager, directed the land use entitlements and environmental permitting for a major expansion to an existing industrial propulsion and testing operation in the unincorporated area of Solano County. Services provided include updating the client's five-year construction and improvement program, a drainage and erosion control analysis, preparation of environmental documents for compliance with C.E.Q.A. (Mitigated Negative Declaration), and coordination of permitting between the county and the state San Francisco Bay Conservation and Development Commission.

Jackson Highway and Grant Line East Visioning Programs – Sacramento County. As Project Manager, led the efforts of a multi-disciplined team to complete the land use, environmental, economic development and policy plans for a large 30,000 acre study area in conjunction with the county's comprehensive General Plan update. The Visioning Program included targets for community development and building efficiency based on LEED standards, to align with State SB 375 policies that promote the integration of land use, housing and transportation decision-making to reduce vehicle miles travelled and resultant greenhouse gas emissions. The Visioning Program policies were incorporated in Phase 1 of the county's Climate Action Plan that received a US Environmental Protection Agency award of a \$500,000 Climate Showcase Communities Grant to reduce the county's carbon emissions.

New Neighborhood Markets Planning, Entitlements and Environmental-CEQA, Multiple Locations in Northern California. As Project Manager, directed the land use permitting and entitlements for numerous grocery store locations planned as part of the entry of a multi-national fresh grocery retailer into the western United States. Services provided include advance site feasibility analysis, research of local permitting and impact fee requirements, and representing the project and client interests before local agencies.

Rinker/ Cemex Land Use Planning and Entitlements, Fairfield, California. As Project Manager, oversaw the preliminary land planning for a seventeen acre industrial property, positioned for redevelopment with a multifamily residential project. Services included a land yield assessment, preliminary environmental site reconnaissance, site planning and assisting the project proponent in selecting project building prototypes that would meet the project objectives and receive support from the local community.

Township 9, Sacramento, CA. As Senior Planner, prepared form-based Design Guidelines and PUD Plan elements for a mixed-use, urban in-fill development located on the south bank of the American River in the River District of Sacramento, California. Project responsibilities included coordinating with local planning and redevelopment agency staff to assure the land use and circulation plan met the city's vision for a vibrant mixed-use neighborhood developed to a human scale in accordance with principles of the New Urbanism, which will serve as a catalyst for a newly-emerging transit hub.

Jon R. Hilliard, AICP

La Valentina TOD, Sacramento, CA. As Senior Planner, conducted the site feasibility research and preliminary site planning as part of a project team selected by the Sacramento Housing and Redevelopment Agency (SHRA) to redevelop an under-utilized site next to a light rail station in Sacramento's historic Alkali Flat neighborhood. Plans for the 52,000 square foot property call for a mixed-use transit-oriented development (TOD) containing 15,000 square feet of ground floor retail and flex space, and 102 upstairs residential apartments. The project includes much-needed commercial space in a neighborhood under-served by the present market, and a public plaza that opens to the station.

GSJ, Inc.

Morgan Place, Placer County, CA. As Project Director, directed the land use planning, entitlements and CEQA compliance for a planned 90-unit residential subdivision on a 10 acre infill development site, and worked with the surrounding neighborhood to address concerns with visual encroachment and aesthetic quality of project design to secure project approval.

Bakersfield Northeast Master Plan , Bakersfield, CA. As Project Manager, managed the land use and environmental entitlements for a 190 acre mixed-density residential development located in a sensitive hillside context. He negotiated amendments to the city's General Plan and Circulation Plan for a land exchange that furthered the city's master trails plan goals and allowed the project to move forward.

Fresno SW Residential Development, Fresno, CA. Directed the complete forward planning and land use approvals for a proposed 365 unit residential subdivision in the southwest Fresno growth area, from performance of site due diligence, engineering design and environmental study procurement, educating the local City Council of the project benefits, and guiding the public process to a successful project approval.

City of Fairfield

Solano County I-80 Reliever Route/Jepson Parkway, Fairfield, Solano County, California. Environmental Management and Impact Assessment. As senior planner, managed the consultant procurement and technical support for preparation of a combined mitigated negative declaration/FONSI for the local three-mile section of an inter-regional roadway improvements in Solano County designed to divert county through-traffic from the Interstate 80 and Interstate 680 confluence. Responsibilities included initiating agency contact and coordination, complete quality control of environmental studies, and assessment of the initial Area of Potential Effect (APE), to allow completion of environmental documents required to secure \$2.5 M in project funding from the Metropolitan Transportation Commission (MTC).

Kinder-Morgan Fuels Pipeline, Fairfield, California. As Senior Planner for Fairfield was responsible for reviewing and coordinating the local components of an EIR prepared by the CA State Lands Commission (the Lead Agency) for a new regional fuels pipeline extending from Concord to Sacramento. Project responsibilities included coordinating review and comments on the EIR between affected City departments, preparing and presenting suggested mitigation measures to the State Lands Commission, and conducting the local review and outreach process mandated by CEQA. As the City's representative, was able to resolve potential conflicts between the proposed pipeline and local stakeholders including the City, County, and an independent sewer district.

Fairfield Corporate Commons, Fairfield, CA. As Senior Planner and Project Lead for the City of Fairfield, managed the land use and environmental permitting for a planned mixed use project containing 600,000 square feet of office and 450 residential units on 75 acres. Project responsibilities included managing the EIR, Development Agreement, land entitlements, outside agency permitting (Sec 404 and Sec 1602 Streambed Alteration Agreement) and public outreach.

Fairfield Employment Center/ Green Valley Corporate Park, Fairfield California. As Project Lead, prepared the environmental studies and land entitlement documents required as part of the transfer of a 220 acre business park between the Redevelopment Agency and a private developer. Project responsibilities included drafting a public-private Development Agreement guaranteeing approvals for up 2 million square feet of office development on the property.

Gold Ridge Planned Community, Fairfield, CA. As Project Lead planner for the City, collaborated with the City leadership and project proponent in devising an acceptable land planning approach for a 600 acre new growth area encumbered with significant environmental and political constraints. Managed the full breadth of environmental and land planning entitlements for the 1200 unit master planned, mixed- density community ultimately approved for the site,

Jon R. Hilliard, AICP

and assisted the City Attorney in compiling and presenting the project review record that was used to successfully prevail in legal challenges to the project approvals.

Solano County Government Center, Fairfield, CA. As Senior Planner, served as the City of Fairfield's liaison in the planning, environmental review and design procurement of the \$120 million Solano County Government Center. Responsibilities throughout this four-year project included participation in design charrettes for the initial land planning and building form studies, commenting and review on the project Environmental Impact Report, sitting on the interview and selection committee for the project architectural and engineering consultants, and coordination of the project construction of a City-owned plaza within the site improvements. The project included extensive community involvement and public contact at each stage off review, approval and development, including regular presentations at City Council and Board of Supervisors workshops.

Northbay Hospital, Fairfield, CA. Represented the City of Fairfield as the liaison between the City, hospital and surrounding community during the implementation of multi-year expansion plans for a 23 acre hospital and medical clinic campus. This role included assisting the hospital in resolving neighborhood issues such as noise, glare, traffic control and parking, and the initial review and continued monitoring of flight paths and operations for a new helipad.

Sutter Fairfield Medical Center, Fairfield, CA. As Senior Planner for the City of Fairfield, managed the environmental review and land entitlements for a 60,000 square foot medical office and procedures building. The project included an update to an existing public-private development agreement between the underlying landowner (Busch Properties) to warranty completion of public streets and infrastructure to serve the new facility.

DECLARATION OF
Jeanine Hinde

I, **Jeanine Hinde**, declare as follows:

1. I am presently employed by the California Energy Commission in its Siting, Transmission and Environmental Protection Division 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 the **Alternatives Analysis** for the **Puente Power Project Application for Certification** (15-AFC-01), based on my independent analysis of the AFC, supplements, data, documents, analysis and testimony from other staff and reliable sources, and based on my own professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue 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: December 7, 2016

Signed: 

At: Sacramento, California

JEANINE M. HINDE

Professional Experience

Planner II

February 2010–Present

California Energy Commission, Sacramento, CA

Environmental Office of the Siting, Transmission, and Environmental Protection Division

Generalist skilled in research and analysis and preparing staff assessments for siting of power plant projects filed with the Energy Commission. Assesses environmental impacts on land use, agricultural resources, and visual resources. Prepares alternatives analyses to comply with the California Environmental Quality Act (CEQA). Evaluates project conformance with applicable laws, ordinances, regulations, and standards. Preparing the alternatives analysis on the Puente Power Project, a natural gas-fired (NGF) plant proposed to replace two aging once-through cooled units at the Mandalay Generating Station. Preparing the visual resources analysis for the Huntington Beach Energy Project, an NGF plant proposed to replace the Huntington Beach Generating Station. Prepared the alternatives analysis for an amendment to the previously approved Palen Solar Electric Generating System (SEGS) in the Colorado Desert. Prepared the alternatives analysis on the Hidden Hills SEGS in the Mojave Desert. Participates in public workshops and presents testimony on contested issues at evidentiary hearings before the Energy Commission. Prepared the land use analyses for a geothermal power plant in Imperial County and an NGF plant in Ceres. Coauthored the alternatives analyses on the proposed amendments to the Carlsbad Energy Center and El Segundo Energy Center projects.

Environmental Analyst and Project Coordinator

2004–2009

EDAW-AECOM, Sacramento, CA

Coordinated preparation of environmental studies to satisfy CEQA and the National Environmental Policy Act and related permitting and regulatory requirements. Contributed to the preparation of regulatory compliance documents for projects addressing flood protection, wastewater management, water quality, habitat restoration, and urban development. As an assistant project manager, contributed to the preparation, technical review, and distribution of a variety of environmental compliance documents for projects that included a levee repair project on the Feather and Yuba Rivers, a levee seepage project on the San Joaquin River near the Sacramento-San Joaquin Delta (Delta), a wastewater treatment plant improvement project in Atwater, and a habitat restoration project adjacent to the middle Sacramento River. As an analyst, prepared environmental impact analyses for resource topics that included land use; agricultural resources; visual/aesthetic resources; public services, utilities and service systems; hazardous materials; recreation; and geology, soils, and mineral resources. Prepared mitigation monitoring and reporting program documents and assisted with fulfilling CEQA noticing and filing requirements.

Environmental Analyst, Independent Consultant

2003–2004

Sackheim Consulting, Fair Oaks, CA

Researched and wrote the aesthetics analyses for the CEQA documents on related neighborhood electrical distribution projects in the Natomas and Elkhorn areas of Sacramento. Prepared a similar analysis for a project in Elk Grove. Assisted with the analyses addressing potential impacts on cultural resources and issues related to hazards and hazardous materials.

Environmental Specialist II

1986–1997

Jones & Stokes Associates, Sacramento, CA

Evaluated impacts on land use, visual resources, and recreation for several state and federal projects, including a water supply management program in the East Bay, a project addressing long-term management of resources in the Delta and Suisun Marsh, and a military operations project at Camp Roberts. Provided technical review and coordinated preparation of report sections prepared by staff, and assisted with research and documentation of required federal, state, and local permits and approvals to include in regulatory compliance plans.

Education

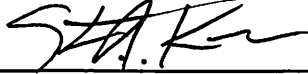
B.A. Geography, California State University, Chico

DECLARATION OF
Steven Kerr

I, Steven Kerr, declare as follows:

1. I am presently employed by the California Energy Commission in the Siting, Transmission, and Environmental Protection Division 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 helped prepare the staff testimony on Land Use for the Puente Power Project based on staff's and my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and staff's and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue 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: 10/31/16 Signed: 

At: Sacramento, California

Steven Kerr

Professional Experience:

California Energy Commission
January 2012-Present

Sacramento, CA
Energy Resources Specialist III

- Supervise the preparation of alternatives, land use, and socioeconomics staff analyses.
- Review power plant applications and amendments for alternatives, land use, socioeconomic, land use, transportation, and visual impacts.
- Evaluate projects in accordance with CEQA, the California Energy Commission siting regulations, and federal, state and local laws, ordinances, regulations, standards (LORS).
- Participate in public workshops and hearings regarding proposals.
- Write environmental analysis documents.

Thomas P. Kerr Inc.
August 2011-January 2012

Sacramento, CA
Property Manager

- Management of properties and assets throughout California and Oregon.
- Assist in the preparation of mobile home park closure impact report for Port of San Luis.
- Use various software applications to produce and review billing and financial records.
- Work with local agencies to coordinate infrastructure improvements.

Ground(ctrl)
February 2010-August 2011

Sacramento, CA
Director of Customer Support

- Coordinate and provide customer support for A-list musical artist fan clubs, online stores, e-mail marketing, ticketing, aggressive online marketing, and much more.
- Resolve escalated customer support issues, credit card disputes, and Better Business Bureau cases.
- Supervise and train customer support team members and interns.

City of Sacramento
General Services Department
July 2009-February 2010

Sacramento, CA
Customer Service Representative

- Perform concurrently multiple customer service related duties for all City of Sacramento departments by phone/email.
- Interpret and apply City regulations and procedures as applicable to billing, fees, and collections.
- Learn and explain the organization, procedure and operation details of the City.
- Use a variety of business software applications and assess maps.

City of Sacramento
Development Services Department
February 2007-July 2009

Sacramento, CA
Assistant Planner

- Project manager for various residential, commercial, industrial, and office development projects.
- Assist customers with zoning, design review, preservation, environmental, subdivision code, and sign questions, both at the public counter and by phone/email.
- Provide customers with required entitlement information, fee estimates, and accept applications for proposed development projects.
- Review applications and plans for consistency with city codes, general plan, and applicable community plans, specific plans and planned unit development guidelines.
- Present projects at community meetings and work with neighborhood association leaders on controversial projects.
- Write staff reports and conditions of approval.
- Present projects at Zoning Administrator, Planning Commission, and City Council public hearings.
- Research development and entitlement histories of parcels.

City of Atascadero
Community Development Department
March 2005-June 2006

Atascadero, CA
Planning Intern

- Prepare environmental review documents.
- Review business licenses and building permits.
- Draft letters and staff reports.
- Respond to questions from the public on planning and zoning related issues.
- Access and update information in GIS and Excel

Education:

2000-2005 California State Polytechnic University, San Luis Obispo, CA
Bachelor of Science in City and Regional Planning

**DECLARATION OF
SHAHAB KHOSHMAHRAB**

I, **SHAHAB KHOSHMAHRAB**, declare as follows:

1. I am presently employed by the California Energy Commission in the **ENGINEERING OFFICE** of the Siting, Transmission, and Environmental Protection Division as a **Senior Mechanical Engineer**.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I participated in the preparation of the staff testimony on **Noise and Vibration** for the **Puente Power Project** based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge. I attest to the accuracy of this testimony, and support its conclusions, finding and recommendations hereto.
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: Nov 2, 2016

Signed: 

At: Sacramento, California

**DECLARATION OF
SHAHAB KHOSHMAHRAB**

I, **SHAHAB KHOSHMAHRAB**, declare as follows:

1. I am presently employed by the California Energy Commission in the **ENGINEERING OFFICE** of the Siting, Transmission, and Environmental Protection Division as a **Senior 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 **Facility Design** for the **Puente Power Project** based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge. I attest to the accuracy of this testimony, and support its conclusions, finding and recommendations hereto.
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: Nov 2, 2016

Signed: 

At: Sacramento, California

DECLARATION OF SHAHAB KHOSHMAHRAB

I, **SHAHAB KHOSHMAHRAB**, declare as follows:

1. I am presently employed by the California Energy Commission in the **ENGINEERING OFFICE** of the Siting, Transmission, and Environmental Protection Division as a **Senior Mechanical Engineer**.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I participated in the preparation of the staff testimony on **Power Plant Efficiency** for the **Puente Power Project** based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge. I attest to the accuracy of this testimony, and support its conclusions, finding and recommendations hereto.
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: Nov 2, 2016

Signed: 

At: Sacramento, California

**DECLARATION OF
SHAHAB KHOSHMAHRAB**

I, **SHAHAB KHOSHMAHRAB**, declare as follows:

1. I am presently employed by the California Energy Commission in the **ENGINEERING OFFICE** of the Siting, Transmission, and Environmental Protection Division as a **Senior Mechanical Engineer**.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I participated in the preparation of the staff testimony on **Power Plant Reliability** for the **Puente Power Project** based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge. I attest to the accuracy of this testimony, and support its conclusions, finding and recommendations hereto.
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: Nov 2, 2016

Signed: 

At: Sacramento, California

Shahab Khoshmashrab, P.E.
Senior Mechanical Engineer

Professional Experience

2001-Current—Senior Mechanical Engineer – Siting, Transmission, and Environmental Protection Division – California Energy Commission

- Perform analysis of, and address complex engineering issues related to, generating capacity, power plant reliability, energy efficiency, noise and vibration, jurisdictional determination, and the mechanical, civil, electrical, and structural aspects of power plants' licensing, construction, and operation.
- Review and evaluate projects to ensure compliance of power plants and related facilities with applicable laws, ordinances, regulations, and standards and California Environmental Quality Act.
- Assist the California Energy Commission in policy making related to electricity generation.

1998-2001—Structural Engineer – Rankin & Rankin

Engineered concrete foundations, structural steel and sheet metal of various building structures including energy related structures such as fuel islands. Performed energy analysis/calculations of such structures and produced both structural plans and detailed shop drawings using AutoCAD.

1995-1998—Manufacturing Engineer – Carpenter Advanced Technologies

Managed manufacturing projects of various mechanical components used in high tech medical and engineering equipment. Wrote and implemented QA/QC procedures and occupational safety procedures. Conducted developmental research of the most advanced manufacturing machines and processes including writing of formal reports. Developed project cost analysis. Developed/improved manufacturing processes.

Education

- California State University, Sacramento-- Bachelor of Science, Mechanical Engineering
- Registered Professional Engineer (Mechanical), California License No. M 32883, Exp. 9/30/2018

DECLARATION OF
Eric Knight
Environmental Office Manager

I, Eric Knight, declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Office of the Siting, Transmission, and Environmental Protection Division as an Energy Resources Specialist III (Managerial).
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared the staff testimony on Visual Resources for the Puente Power Project based on my independent analysis of the application for certification 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 issue 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: 12/7/16 Signed: 

At: Sacramento, California

Eric Knight

Energy Resources Specialist III (Managerial)

Professional Experience

Eighteen years of experience with energy facility permitting and preparing environmental documentation in compliance with the California Environmental Quality Act (CEQA).

Environmental Office Manager (Office Manager II/Energy Resources Specialist III (Managerial))

*Siting, Transmission, and Environmental Protection Division, CA Energy Commission
August 2009-present*

Responsible for planning, organizing and directing the activities of the staff of the Environmental Office. Office staff are primarily responsible for preparing environmental impact analyses in the areas of land use, transportation, visual resources, socioeconomics, alternatives, biological resources, and cultural resources as required by CEQA, for thermal electric generating facilities (50 MWs and greater) and related facilities (including electric transmission lines and natural gas and water supply pipelines); identifying feasible measures to mitigate significant impacts; and providing expert witness testimony at evidentiary hearings. Responsible for quality control of all Office work products, including ensuring staff's analyses are complete, accurate, and defensible. Advise the Division Deputy Director, Executive Director, and Commissioners on a broad range of issues related to energy facility siting and the Office's responsibilities. Represent the Office/Siting Division in meetings, workshops, and hearings with energy facility applicants, project owners, intervenors, federal, state, and local agency representatives, Native American tribes, interest groups, Commissioners, and the public. Review and analyze proposed legislation related to the Division's programs.

Siting & Dockets Office Manager (Office Manager I)

*Siting, Transmission, and Environmental Protection Division, CA Energy Commission
June 2008-August 2009*

Was responsible for planning, organizing and directing the activities of the staff of the Siting & Dockets Office, which included project managers and project assistants assigned to power plant licensing cases and the staff responsible for maintaining the Energy Commission's regulatory and non-regulatory official records (Dockets). The Siting Office is responsible for coordinating the environmental and engineering assessments of proposed energy facilities conducted by the technical offices (Environmental, Engineering, and Transmission) of the Siting Division. Advised the Division Deputy Director, Executive Director, and Commissioners on a broad range of issues related to energy facility siting and the Office's responsibilities. Represented the Office/Siting Division in meetings, workshops, and hearings with energy facility applicants, intervenors, federal, state, and local agency representatives, interest groups, and the public.

Siting Program Manager (Planner III)

*Energy Facilities Siting Division, Siting & Compliance Office, CA Energy Commission
February 2008-June 2008*

Was responsible for managing the Energy Facilities Siting Program and supervising and directing the work of project managers overseeing the Siting staff's review and analysis of power plant siting cases. Represented the Division in meetings, workshops, and hearings with project applicants, intervenors, federal, state, and local agency representatives, interest groups, and the public. Advised the Siting & Compliance Office Manager and Deputy Director on technical, procedural, and legislative issues.

Community Resources Unit Supervisor (Planner III)

*Energy Facilities Siting Division, Environmental Office, CA Energy Commission
January 2007-February 2008*

Was responsible for supervising and directing the work of technical staff in the Community Resources Unit and consultants performing environmental impact assessments of power plants and related facilities as required by CEQA and the Warren-Alquist Act. The Unit was responsible for preparing environmental impact assessments in the areas of land use/agricultural resources, traffic and transportation, visual resources, and socioeconomics; identifying feasible measures to mitigate significant impacts and ensure compliance with applicable laws, ordinances, regulations and standards; and presenting expert witness testimony at evidentiary hearings. Was responsible for quality control of products originating from the Unit, including ensuring staff's analyses were complete, accurate and defensible, and completed on schedule. As Unit Senior, was responsible for completing the most complex analyses and addressing the most difficult technical issues related to the Unit's responsibilities. Advised the Environmental Office Manager and Division Deputy Director on technical, procedural, and legislative issues.

Energy Commission Specialist II

*Special Projects Office, Fuels & Transportation Division, CA Energy Commission
July 2006-January 2007*

Provided recommendations on complex, sensitive, and technical problems related to energy infrastructure assessments, particularly liquefied natural gas (LNG) projects. Was responsible for leading the Special Projects Office's LNG assessment activities. Was responsible for briefings for management, Commissioners (Natural Gas Committee), and the LNG Interagency Working Group on LNG assessment activities and projects. Was responsible for preparing reports, correspondence, and presentations related to LNG proposals. Represented the Energy Commission at the "LNG: When East Meets West - The Unfolding of the LNG Trade in the Pacific" conference.

Project Manager (Planner II)

Energy Facility Siting Division, Siting Office, CA Energy Commission

November 2004-July 2006

Was responsible for managing the Siting Division staff's review and analysis of Applications for Certification to construct and operate thermal electric power plants and related facilities. Was responsible for briefings for the Executive Director, Division Deputy Director, Office Managers, Supervisors, and technical staff on the schedule, strategy, progress, and issues throughout the siting case. Provided direction to project team members and was responsible for ensuring quality control on all published staff products, including the staff's assessment covering 22 environmental and engineering technical disciplines. Was responsible for organizing, scheduling, and conducting public workshops and preparing correspondence.

Environmental Planner (Planner I/II)

Energy Facility Siting Division, Environmental Office, CA Energy Commission

October 1998-November 2004

Was primarily responsible for preparing independent analyses of the visual, land use, and transportation impacts of power plant projects and related facilities. Evaluated project compliance with applicable laws, ordinances, regulations and standards, and identified feasible measures to mitigate significant adverse impacts as required by CEQA. Other duties included preparing data requests, conducting field visits, participating in public workshops, preparing written testimony, presenting expert witness testimony at hearings before the Commissioners, and monitoring compliance with conditions of certification in the Final Commission Decision.

Assistant Project Manager (Energy Analyst)

Energy Facility Siting Division, Siting & Permit Assistance Unit, CA Energy Commission

June 1995-October 1998

Worked with project manager to promote local government use of an urban planning tool emphasizing energy efficiency. Authored a chapter to the National Wind Coordinating Committee's handbook *Permitting of Wind Energy Facilities*. Assisted in the preparation of several Energy Commission publications, including the *Energy Aware Planning Guide II: Energy Facilities* and *The Energy Yardstick: Using PLACE³S to Create More Sustainable Communities*.

Program Technician

California Department of Toxic Substances Control

June 1994-June 1995 (Student Assistant, March 1993-January 1994)

Provided regulatory assistance to hazardous waste generators, transporters and storage facility operators. Compiled an instructions manual for telephone hotline staff to refer to while assisting hazardous waste handlers and the general public. Issued identification numbers to hazardous waste generators. Entered facility information into the department's database of hazardous waste handlers.

Student Intern

Sacramento Valley Toxics Campaign

January 1992-June 1992

Filed public record requests with state and federal agencies. Conducted research and authored an article for the campaign newsletter. Helped to organize community meetings, press conferences and public outreach events.

Education

Bachelor of Arts – Environmental Studies, California State University, Sacramento, 1993

Minor – Government, CSUS, 1993

Professional Education (Partial List)

Advanced CEQA, UC Davis Extension, May 2016

Expert Witness and CEQA Training, CEC Chief Counsel's Office, 2014 and 2011

EIR/EIS Preparation and Review, UC Davis Extension, October 2009

Defensible CEQA Documents, Lorman Education Services, August 2007

Airports and Land Use Compatibility Planning, UC Davis Extension, April 2007

Managing LNG Risks, ioMosaic Corporation, November 2006

Applied Project Management, DTS Training Center, May 2006

CEQA Workshop, Association of Environmental Professionals, Feb. 2004 and 1999

CEQA Overview and Update, UC Davis Extension, June 1998

Land Use Planning for Environmental Professionals, UC Davis Extension, May 1996

Introduction to ArcView and Avenue (GIS), ESRI, August 1995 and May 1998

ANDREA KOCH

PROFESSIONAL EXPERIENCE

CALIFORNIA ENERGY COMMISSION, December 2009 – Present

Siting, Transmission, and Environmental Protection Division, Sacramento, California

Environmental Planner II- Perform environmental review of power plant applications.

- Review power plant applications for traffic and transportation and land use impacts.
- Write environmental analysis documents.

CITY OF SACRAMENTO, June 2007 – July 2009

Planning Department, Long-Range Planning Division, Sacramento, California

Assistant Planner- Performed long-range city planning for 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, June 2005 – June 2007

Planning Department, Environmental Planning Division, Santa Cruz, California

Resource Planner II- Performed resource planning for Santa Cruz County.

- 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, November 2004 – June 2005

Planning Department, Marina, California

Assistant Planner- Performed current planning for Monterey County.

- 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.

EDUCATION

California Polytechnic State University, San Luis Obispo, California

- Master of City and Regional Planning, Concentration in Environmental Planning, 2004

University of California, Davis

- Bachelor of Science in Wildlife, Fish, & Conservation Biology, Concentration in Conservation Biology, 2002
- Graduated with High Honors and a Department Citation

**DECLARATION OF
MATTHEW S. LAYTON**

I, Matthew S. Layton, declare as follows:

1. I am presently employed by the California Energy Commission in the Siting Transmission and Environmental Protection Division as a Supervising Mechanical Engineer.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I oversaw the preparation of sections of the Alternatives analysis for the Puente Power Project Final Staff Assessment based on my independent analysis of the Application for Certification 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 issue(s) 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: 10/27/16

Signed: Matthew Layton

At: Sacramento, California

MATTHEW S. LAYTON

Experience Summary

Twenty eight years of experience in the electric power generation field, including regulatory compliance and modification; research and development; licensing of nuclear, coal-fired, peaking and combined cycle power plants; and engineering and policy analysis of regulatory issues.

Education

B.S., Applied Mechanics, University of California, San Diego.

Registered Professional Engineer - Mechanical, California.

Experience

2009-present – Supervising Mechanical Engineer, Systems Assessment and Facilities Siting Division, California Energy Commission.

1987-2009 – Senior Mechanical Engineer, Systems Assessment and Facilities Siting Division, California Energy Commission. Review and evaluate power plant proposals, identify issues and resolutions; coordinate with other agencies; and prepare testimony, in the areas of:

- Air quality resources and potential impacts, and mitigation measures;
- Public Health; and
- Transmission Line Safety and Nuisance.

Prepared Commission demonstration project process; contributed to the Energy Technology Status, Energy Development, and Electricity Reports; Project Manager for demonstration projects; evaluated demonstration test plans, procedures, data and reports; disseminated test results; and managed research and development contracts.

1983-1986 – Control Systems Engineer, Bechtel Power Corporation. Managed a multi-disciplined effort to environmentally qualify client's safety related nuclear plant equipment. Performed analyses, calculations and reviews against vendor test reports, NRC guidelines and plant normal and postulated accident conditions.

1981-1983 – Engineer, GA Technologies, Inc. Supervised design and procurement of full-scale test assembly used to evaluate design changes to operating reactor graphite core assembly. Conducted experiment to determine the relationship of graphite oxidation rate to water concentration, temperature, and helium pressure. Environmentally qualified essential and safety related nuclear power plant equipment to comply with NRC guidelines.

**DECLARATION OF
Geoff Lesh**

I, **Geoff Lesh**, declare as follows:

1. I am presently employed by the California Energy Commission in the Engineering Office of the Siting, Transmission and Environmental Protection Division as a Senior 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 **Hazardous Materials Management**, and **Worker Safety / Fire Protection** for the **Puente Power Project Final Staff Assessment**, based on my independent analysis of the Application for Certification and supplement 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 issue 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: _____

12/12/2016

Signed: _____



At: _____

Sacramento, California

Geoffrey Lesh, PE

WORK HISTORY

California Energy Commission Senior Mechanical Engineer 2002 - Current

- Analyze siting permit applications for gas-fired and solar-thermal power plants in the technical areas of hazardous materials management, fire safety, security, and worker safety plans
- Provide written and oral expert witness testimony at commission hearings on power plant fire protection plans, risk assessments, and adequacy of local fire departments
- Recommend mitigations as needed
- Inspect power plants during construction and operational phases
- Investigate accident, fire, and hazardous materials incidents at power plants

Self-Employed Independent Investor 2000 - 2002

- Wrote market analysis computer software

Read-Rite Corp Wafer Engineering Manager 1994 - 2000

- Designed and developed wafer manufacturing processes for computer data storage systems. Managed team of engineers and technicians responsible for developing wet and dry chemical processes for manufacturing, including process and safety documentation
- Managed process and equipment selection for manufacturing processes
- Processes included vacuum processed metals and ceramics, grinding-polishing, plating, etching, encapsulation, process troubleshooting, and SPC reporting

Dastek Corp (Komag Joint Venture Start-up) Wafer Engineering Manager 1992 - 1994

- Developed wafer processes for new-technology recording head for hard disk drives
- Managed team of engineers and technicians
- This position included start-up of wafer fab, including line layout, purchase, installation, and startup of new process equipment, etc.

Komag, Inc Alloy Development Manager 1989 - 1992

- Developed new vacuum-deposited recording alloys
- Responsible for planning and carrying-out tests, designing experiments, analyzing results, managing test lab conducting materials characterizations
- Extensive process modeling, experiment design and data analysis

Verbatim Corp (Kodak) Process Development Manager 1983 - 1989

- Mechanical/materials engineering for computer disk manufacturing, including product, process, and equipment including metal-ceramic-plastic processes for optical disk development
- Production processes included metal plating, metal evaporation, reactive sputtering, laser-based photolithography, injection molding
- Steering Committee Member, Center for Magnetic Recording Research, UC San Diego
- Steering Committee Member, Institute for Information Storage Technology, Santa Clara University

IBM Corp Mechanical/Process Engineer 1977 - 1983

- Product development for photocopiers, semiconductors, and computer data tape-storage systems

EDUCATION

Stanford University, Master of Science Degree	Materials Science and Engineering
UC-Berkeley, Bachelor of Science Degree (Double Major)	Mechanical Engineering, Materials Science and Engineering
University of Santa Clara, Graduate Certificate	Magnetic Recording Engineering

PROFESSIONAL LICENSES and CERTIFICATIONS

Registered Professional Engineer, California (PE)	Mechanical #M32576
	Fire Protection #FP1827
	Metallurgical #MT1940
Certified Safety Professional (CSP)	Board of Certified Safety Professionals
Certified Fire Protection Specialist (CFPS)	Certified Fire Protection Specialist Board of NFPA
Certified Fire and Explosion Investigator (CFEI)	Board of National Association of Fire Investigators
OSHA 40-hr HAZWOPER Hazardous Materials Incident Training	

PROFESSIONAL ASSOCIATIONS

American Society of Safety Engineers – Professional Member
Society of Fire Protection Engineers – Professional Member
National Fire Protection Association – Member
National Association of Fire Investigators – Member

PUBLICATIONS

All-Solid Lithium Electrodes with Mixed-Conductor Matrix, J. Electrochem. Soc. 128, 725 (1981).
Proc. Symp. on Lithium Batteries, H.V. Venkatesetty, Ed., Electrochem Soc (1981), p. 467.

PATENTS

Method of Preparing Thermo-Magneto-Optic Recording Elements, US Patent# 4,892,634, (assigned to Eastman Kodak Co.)

**DECLARATION OF
Paul Marshall, Senior Engineering Geologist**

I, Paul Marshall, declare as follows:

1. I am presently employed by the California Energy Commission in the Engineering Office of the Siting Transmission and Environmental Protection Division as a Senior 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 Paleontology for the Puente Power Project Final Staff Assessment based on my independent analysis of the Application for Certification 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 issue 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: 14 December 2016

Signed: _____



At: Sacramento, California

Paul D. Marshall

EDUCATION

SAN DIEGO STATE UNIVERSITY, CALIFORNIA

Bachelor of Science Degree in Engineering Geology

Completed post-baccalaureate courses in Engineering Geology

FRESNO STATE UNIVERSITY, CALIFORNIA

Completed post-baccalaureate courses in Civil Engineering

LICENSES

California Registered Geologist, No. 5718

California Certified Engineering Geologist, No. 1817

California Certified Hydrogeologist, No. 468

EMPLOYMENT HISTORY

CALIFORNIA ENERGY COMMISSION

Siting, Transmission, and Environmental Protection Division – Supervisor, Soil, Water Resources, and Waste Management Unit/ January 2008 -Present

Supervise a multidisciplinary team of engineers and geologists responsible for analysis of potential environmental impacts from power plant construction and operation to soil and water resources and from waste management activities. Provide guidance and technical assistance to staff for complex analysis of power plant impacts on water supply, water quality, wastewater disposal, discharges to surface water and groundwater, development and utilization of groundwater, flood impacts and storm water management, and assessment of potential impacts on human health and the environment. Ensures staff work products are consistent with laws, regulations, and policies of the US EPA, US ACOE, SWRCB, RWQCB's, CDFG, DTSC, and other local ordinances. Contract with and direct the work of consultants conducting technical reviews of power plants. Schedule and confer with a multidisciplinary staff of planners, engineers, and scientists to ensure staff analyses are coordinated with other disciplines where there is overlap. Ensure product delivery in a timely manner. Hire and develop staff, complete probationary and performance reports, counsel and mentor staff. Take adverse actions when appropriate.

CALIFORNIA DEPARTMENT OF CONSERVATION

Office of Mine Reclamation – Supervisor, Compliance Unit/October 2006 – January 2008

Supervise a team of engineering geologists responsible for ensuring compliance with mine reclamation plans and specifications. Review and approve staff work conducted to ensure plans and specifications were adequate and enforceable. Direct staff responsible for enforcement actions and preparation of data and reports for presentation to the State Mining and Geology Board. Oversight of staff review of cost estimates for mine reclamation and conduct statewide workshops outlining requirements for mine reclamation cost estimates. Implement Lead Agency review and audit program.

STATE WATER RESOURCES CONTROL BOARD

Division of Financial Assistance – Chief, Project Implementation Unit/January 2001 – September 2006

Supervise a multidisciplinary team responsible for contract and project management associated with Prop 13, Prop 40, Prop 50, Water Bond 1986 and 1996, and the Federal Clean Water Act funding programs. Develop program policies and procedures for implementation and management of grant and loan programs and projects. Direct the work of staff and coordinate with state and federal agencies in the development of technical review criteria for selection of projects recommended for grant award. Direct the work of staff and contractors developing a Project Assessment and Evaluation Program used to evaluate program effectiveness. Provide guidance and technical support to stakeholders for project development. Represent SWRCB at public meetings and conduct training on program procedures. Ensure project integrity and compliance with State and Federal laws.

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Division of Local Assistance - Senior Engineering Geologist/ July 2000 – January 2001

Manage multidisciplinary staff to identify and develop conjunctive water management programs throughout Southern California. Organize, guide, and support local stakeholder groups in development of conjunctive water management plans. Develop partnering opportunities with other local, state, and federal agencies to spread program benefits region-wide and implement CALFED goals and objectives. Write and review contract documents, task orders, grant applications, and provide input on program policy. Solicit and assist agencies with loan and grant applications for various Water Bond 2000 programs.

Division of Safety of Dams - Senior Engineering Geologist/October 1995 – June 2000

Serve as an engineering geology consultant to a staff of 47 design and field engineers performing regulatory oversight of dam construction and operation. Evaluate existing and proposed dam sites for geologic and seismic hazards; review and comment on geotechnical site assessments and construction plans and specifications; act as technical adviser to staff during construction; inspect and document geologic conditions. Communicate findings to staff, consultants, and owners through written reports, briefings, and meetings. Give presentations to DSOD Board of Consultants on development of state-of-the-art procedures. Develop information and monitor changes in the regional geologic environment.

Division of Local Assistance - Associate Engineering Geologist/November 1993 - October 1995

As a member of the Water Quality Assessment Program I independently performed surface and groundwater studies, and environmental site assessments for both DWR and federal and local government agencies. Negotiated contracts, authored task assignments, and oversaw the work of consultants. Authored reports with analysis of data from various types of exploration and sampling programs. Assembled a Department-wide Site Assessment Project Team and assisted in developing DWR policy for site assessments. Trained team members and gave staff presentations outlining program and team goals.

Division of Local Assistance - Associate Engineering Geologist/October 1992 - October 1993

Under the auspices of the Proposition 82 Water Conservation Bond Law of 1988, I directed the Department's technical, environmental, and economic review of ground water recharge and water supply loan applications. Performed independent technical review and certified feasibility and construction loan applications. Provided assistance to public water agencies regarding compliance with environmental and water rights regulations, and institutional and legal requirements for project development. Coordinated Department's technical review and comment on various CEQA documents.

KLEINFELDER, INC.

Project Geologist - 4 years

Worked in regional offices throughout Central and Southern California, Western Arizona and Southern Nevada performing geotechnical investigations and environmental site characterizations. Supervised field exploration activities throughout the Central Valley and Central Coast of California. Directed water resource, groundwater recharge, geotechnical, and environmental site characterization studies. Marketed clients, determined scope of services, and prepared cost proposals. Monitored project schedules and billing. Briefed clients and supervisors on project status. Authored reports providing geotechnical recommendations for various federal, state, municipal, and commercial projects. Inspected remediation and stabilization projects. Other responsibilities included compilation of data using spreadsheets and databases, conducting literature and aerial photograph review, and writing reports.

EARTH SYSTEMS, INC.

Staff Geologist - 3 years

Designed and supervised installation of monitoring well arrays, extraction wells, drains, dewatering, and slope monitoring equipment throughout central and southern California. Directed subsurface exploration using various drilling and geophysical techniques. Conducted liquefaction, fault rupture hazard, and coastal bluff stability studies. Conducted special inspections of excavations, deep foundations, reinforced earth, and concrete. Performed numerical analyses for slope stability, liquefaction, and earthquake ground motion studies. Authored reports containing cross-sections, maps, and graphs presenting various types of water resource and geotechnical data.

**DECLARATION OF
Garry Maurath, Engineering Geologist**

I, Garry Maurath, declare as follows:

1. I am presently employed by the California Energy Commission in the Engineering Office of the Siting Transmission and Environmental Protection Division as an 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 Paleontology for the Puente Power Project Final Staff Assessment based on my independent analysis of the Application for Certification 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 issue 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: 25 October 2016

Signed: _____



At: Sacramento, California

Garry Maurath, Ph.D., P.G., C.Hg.
Engineering Geologist

Experience Summary

Dr. Maurath has 40+ 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 the U.S. Army Corps of Engineers (USACE) and several DOE facilities/national laboratories, including Los Alamos, SANDIA, INEL, Savannah River, 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 - compliance, more than a dozen power projects throughout California, California Energy Commission
- Geologist/Paleontologist, Alamitos Energy Center, Huntington Beach, California, California Energy Commission
- Geologist/Paleontologist, Huntington Beach Energy Center, Huntington Beach, California, California Energy Commission
- Geologist/Paleontologist, Mission Rock Energy Center, Santa Paula, California, California Energy Commission
- Geologist/Paleontologist, Pomona Energy Center, Pomona, California, California Energy Commission
- Geotechnical Field Coordinator, Delta Habitat Conservation and Conveyance Project (DHCCP), CA DWR
- 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, Mt. Hope Pumped Storage Project, Mt. Hope, New Jersey, Federal Energy Regulatory Commission
- Hydrogeologist, Municipal Water Supply Well Siting, Design, & Construction, Alleghany County Water District
- 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 (Finance Committee co-chair, former member Board of Directors; former Sacramento Branch Chairperson, Secretary and Newsletter editor)
- Groundwater Resources Association of California, founding member, currently affiliated with the Sacramento Chapter

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 currently co-editor of *Geology of Sacramento* and *Geology of San Francisco*, which are both scheduled to be published in early 2018.

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, Data Management, and 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

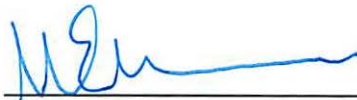
I, Melissa Mourkas, declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Protection Office of the Siting, Transmission, and Environmental Protection Division 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 Cultural Resources (built environment resources) for the Puente Power Project based on my independent analysis of the Application for Certification 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 issue 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: December 8, 2016

Signed: _____



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 presently employed by the California Energy Commission in the Transmission Evaluation and Planning Office of the Siting, Transmission, and Environmental Protection Division 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 Transmission System Engineering, for the Puente Power Project based on my independent analysis of the Application for Certification 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 issue 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: 10/28/2016 Signed: Laiping Ng
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 SHAWN PITTARD

I, Shawn Pittard, declare as follows:

1. I am presently employed by the California Energy Commission in the Compliance Office of the Siting, Transmission, and Environmental Protection Division as a Compliance Project Manager.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared or helped prepare the staff testimony on Compliance Conditions and Compliance Monitoring Plan and Environmental Justice for the Puente Power Project based on my independent analysis of the Application for Certification 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: December 7, 2016 Signed: 

At: Sacramento, California

SHAWN PITTARD

SUMMARY

A project manager, program manager, supervisor, and policy adviser with experience in environmental planning and policy, including energy resources development and conservation, public participation, recycling economic development, water resources, flood control, and site selection studies.

EXPERIENCE

California Energy Commission

2016 – Present: Compliance Project Manager

Being an experienced Compliance and Siting Project Manager, I am utilized, as needed, in either capacity. I facilitate interagency meetings and workshops to encourage meaningful public participation and issue resolution, and interface with interested parties that include project developers, public agencies, and community groups. As a project manager in the Siting Division's matrix organization, I negotiate deadlines and help set priorities with technical staff's supervisors and managers. In addition, I am a member of a rulemaking working group tasked to improve the compliance program's regulations. The team includes the legal and hearing offices and reports to the siting lead commissioner.

2015 – 2016: Assistant Public Adviser

I facilitated public participation in hearings, workshops, and the Energy Commission's monthly Business Meetings; developed outreach plans to ensure the public was informed about projects that could affect them; and responded to a wide range of questions—and complaints—about the commission's programs and proceedings on the telephone and via email. In addition, I produced four how-to videos to introduce the public adviser to the public and to help them understand how to participate in a business meeting, use WebEx, and e-Comment.

1997 – 2000: Policy Adviser to Energy Commissioner

As Commissioner Michal Moore's second advisor, I had the opportunity to participate in the Commission's processes in a way that integrated my experience. I experienced the energy facility licensing and compliance processes from the point-of-view of a presiding member of a committee and a voting member of the Commission. In addition, I was the lead/project manager for a multi-stakeholder informational proceeding intent on improving information/data sharing between the federal and state energy regulators and the energy industry.

1996 -1997: Supervisor, Land Use Unit

This job was an 18-month Limited Term position as a unit supervisor in the Environmental Office of the Siting Division. Our unit was responsible for the review of technical subjects analyzed in the commission's power plant licensing and compliance processes, including land use, transportation, socioeconomics, cultural resources (anthropology/archaeology), visual resources, and hazardous

materials management. In response to the heavy workload of this unit, I instituted peer-review processes and a technical-writing strategy to keep us on-track and on-time.

1992 – 1996: Siting Project Manager

I managed the review of Applications for Certification. In the Siting Division's matrix organization, I worked with staff in all technical areas to ensure thorough analysis of proposed projects. I conducted hearings, workshops, and informational meetings in community centers and public schools to encourage meaningful public participation.

1998 – 1990: CEC, Compliance Project Manager

I coordinated regulatory oversight and enforcement during the construction and operation of power plants licensed by the Energy Commission. In the Siting Division's matrix organization, I worked with staff in all technical areas to ensure the commission's conditions of certification were met. When they were not, I would facilitate changes to bring the developer into compliance.

As project manager of the Commission's 1990 Global Climate Change Symposium, I helped bring staff, commissioners, experts in the field, stakeholder groups, and the public together at USC for a series of presentations, panel discussions, Q&As, and ultimately, policy recommendations.

California Integrated Waste Management Board,

1990 – 1992: Associate Waste Management Specialist

As manager of the Recycling Market Development Zones program, I was directly responsible for implementing recent legislation intended to provide incentives for the use of secondary materials (waste plastics, for example) from the local area as the primary materials for use in the manufacture of new products in the same local area. The program was a recycling version of the Economic Development Zones program. I wrote the regulations, devised the application process, and held public meetings and workshops up and down the state to help cities, counties, non-profits, and small businesses understand the program and prepare their applications. The program was launched on-time; all regulatory timelines were met.

Earth Technology Corporation

1986 – 1988: Senior Staff Geographer

I was part of a site selection study conducted for the US Air Force's Ballistic Missile Office that encompassed the Continental United States. Using Geographic Information Systems, we analyzed dozens of military installations to determine which would best support a new mission. My responsibilities included the supervision of technical staff and quality control remote image interpretation, ground truthing those interpretations in the field, and data-layer preparation for automation by the GIS staff—in coordination with our co-contractors ESRI. I wrote the reports.

Arizona Department of Water Resources

1984 – 1986: Water Resources Specialist

I gathered and analyzed data in support of a project to adjudicate water rights in the State of Arizona. Tasks included map and aerial photo interpretation, plane table surveying, and involved extensive field work to ground truth data and interview farmers and ranchers with surface impoundments. These data were integrated in a Geographic Information System.

US Army Corps of Engineers

1982 – 1984: Geographer

I was a small projects manager in the Arizona-Nevada Office of the Los Angeles District. Each project manager was also a technical specialist for other project managers in the field office. My projects were located on the Navajo Nation and included both location-specific flood control projects and regional water resources planning.

EDUCATION

Master of Planning and Development Studies, USC, 1999

BS, Geography, Arizona State University, 1983

DECLARATION OF WENJUN QIAN

I, Wenjun Qian, declare as follows:

1. I am presently employed by the California Energy Commission in the Engineering Office of the Siting, Transmission and Environmental Protection Division 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 Appendix Air-2: Additional Support of District Response to the Sierra Club Comment, Air Quality Appendix Air-3: Additional Responses to the Comments on Modeling, and Biological Resources-Appendix-1: Nitrogen Deposition Analysis for the Puente Power Project, based on my independent analysis of the Application for Certification 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 issue(s) 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: 10/27/2016

Signed: 

At: Sacramento, California

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

Professional Experience

Air Resources Engineer

(July 2010 – Present)

California Energy Commission, Siting Transmission and Environmental Protection Division

Currently acting as air quality technical staff on siting projects filed with the Energy Commission, including El Segundo, Russell City, Palomar, Oakley, Huntington Beach etc. Specific responsibilities include the following:

- Analyze the impacts of the construction and operation of large power generation projects on air quality, Green House Gas and climate change
- Determine the conformance to applicable U.S. EPA, ARB and local air district regulations and standards
- Investigate and recommend appropriate emission mitigation measures
- Prepare air quality staff assessments and technical testimony
- Develop and monitor air quality compliance plans
- Review and evaluate U.S. EPA, ARB, and local air district air quality rules and regulations
- Collect, analyze, and evaluate data for the effects of air pollutants and power plant emissions on human health and the environment
- Assist staff in other technical areas by evaluating nitrogen deposition, thermal plume, and visible plume impacts from power plants

Research Assistant

(Sept. 2005 – June 2010)

University of California, Riverside, Mechanical Engineering

- Evaluated air quality impact of distributed generations in South Coast Air Basin of California
- Estimated air quality impact from the key power plant of Los Angeles Department of Water and Power in shoreline urban areas
- Improved air quality model results by evaluation with experimental data
- Prepared and presented multiple comprehensive reports, journal papers, and conference papers

Education

PhD Mechanical Engineering, University of California, Riverside (August 2010)
MS Mechanical Engineering, George Washington University (August 2005)
BS Mechanical Engineering, Shanghai Jiao Tong University (June 2004)

DECLARATION OF

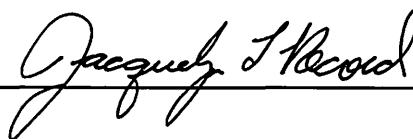
I, Jacquelyn Leyva Record declare as follows:

1. I am presently employed by the California Energy Commission in the Facilities Siting Office of the Systems Assessments and Facilities Siting Division 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** for the **Puente Power Plant** based on my independent analysis of the Application for Certification 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 issue addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and errata 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: 10/28/16

Signed: _____



At: Sacramento, California

Jacquelyn Leyva Record

Experience

March '09 – Present **CA Energy Commission** **Sacramento, CA**
Air Resources Engineer

- Currently authoring staff assessment analyses for the technical area of air quality for the Engineering and Siting Division permitting power plant projects over 50 MW in the state of CA. Worked on renewable ARRA funding projects along with natural gas power projects.
- Reviewing emission compliance reports
- Authored staff analyses for project amendments
- Trained in CEQA and NEPA analysis, along with AERMOD air modeling.

August '08 – March '09 **ERRG, Inc.** **Martinez, CA**
Engineering Assistant

- Assisted with both technical and field duties for a variety of environmental investigations.
- Assisted on an environmental site assessment, preliminary assessments (PA), site inspections, and remedial investigations feasibility studies.
- Field duties performed include groundwater sampling and air sampling

June '07 – March '08 **Tetra Tech EC, Inc** **Santa Ana, CA**
Engineering Assistant Intern

- Working on various Department of Defense projects in environmental engineering.
- Helped assist in 5 year review of remediation approaches.
- Helping assist with a commercial project creating a water reuse/recycle treatment plant.

June '05 – September '05 **SF Regional Water Board** **Oakland, CA**
Contract Work – Special Project

- Wrote a memorandum regarding total petroleum hydrocarbons showing up as false positives in submitted quarterly monitoring reports for NPDES FUEL permit.
- Researched various EPA methods of testing for VOC, and Fuel constituents in water.
- Communicated with consultants from Weiss Associates and state funded laboratories to come to a conclusion for memorandum.
- Site inspections, site reports.

Education

2003-June 2008 University of California Irvine Irvine, CA

- B.S., Chemical Engineering
- MAES (Mexican American Engineers and Scientists) - Vice Chair 2004-2005
- CAMP summer science program participant 2003

DECLARATION OF
Marylou Taylor, P.E.

I, Marylou Taylor, declare as follows:

1. I am presently employed by the California Energy Commission in the Engineering Office of the Siting, Transmission and Environmental Protection Division as an Associate Civil Engineer.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I am familiar with, and have reviewed the analysis and preparation of, staff testimony on **Soil & Water Resources** for the **Puente Power Project**. Therefore, based on the independent analysis of the Application for Certification and associated supplements; based on data from reliable documents and sources; and, based on my professional experience and knowledge: I attest to the accuracy of this testimony, and support its conclusions, finding and recommendations hereto.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue 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: 11-10-2016

Signed: Marylou Taylor

At: Sacramento, California

MARYLOU P. TAYLOR, P.E.

REGISTRATIONS/LICENCES:

California Professional Engineer License # C64353

EDUCATION:

B.S. Civil Engineering
University of California, Davis

PROFESSIONAL HISTORY:

Associate Civil Engineer 2010 to Present
California Energy Commission, Sacramento, CA

Duties within the Water and Soils Unit of the Engineering Office in the Facilities Siting Division include review and evaluation of applications for certification of thermal power plants within the state of California. The focus of the work is on sensitive project sites that may have issues involving groundwater and surface water resources, soil erosion, flooding potential, water quality and plant-derived waste generation and disposal. In addition, evaluate construction, operation and maintenance of the facilities and conduct investigations to determine if violations of the program's regulations, the Energy Commission's conditions of certification, or the California Environmental Quality Act (CEQA) have occurred.

Transportation Engineer, Civil 2000 to 2010
California Department of Transportation (Caltrans), District 3, Sacramento, CA

As Project Engineer in the Office of Design, identified storm water quality issues along public highways within the Tahoe Lake area and designed appropriate features in an effort to preserve and enhance the unique natural environment; and prepared reports evaluating alternatives and proposing a design concept and scope for development and programming.

Designed drainage systems for highways throughout Northern California to comply with Caltrans standards, including: analysis of site hydrology and hydraulic design; storm water management near impaired water bodies; and preparing layouts and construction details for contract plans.

Also performed engineering inspections of State contract construction projects and enforced contractor's compliance with plans and State specifications. Duties include: assisting Resident Engineer in re-designing areas where the contract plans conflicted with field conditions; performing inspections of construction site activities; and managing problems that develop in the field.

Waste Management Engineer 1997 to 2000
California Integrated Waste Management Board, Sacramento, CA

Reviewed and analyzed construction and demolition (C&D) waste handling, processing, and treatment technologies to minimize waste disposal and increase the use of recycled material into useful products. Organized outreach (workshops, conference booth, fact sheets) of C&D programs to industry audiences.

Ellie Townsend-Hough, REA
(Registered Environmental Assessor, REA 1 – 05465)

SUMMARY

I am a chemical engineer with 30 years of experience. My professional career has afforded me many unique growth and development opportunities. I have a working knowledge of the California Environmental Quality Act. My strengths are in analyzing and performing complex environmental engineering analyses, in areas such as Waste Management, Hazardous Materials Management, Worker Safety, and Water Resources. I worked as a policy advisor to a California Energy Commissioner for three years. I am also an US Environmental Protection Agency Environmental Justice trainer.

PROFESSIONAL EXPERIENCE

Writing

- Write environmental impact reports , negative declarations that require technical evaluation of mechanical engineering and environmental aspects of pollution control systems, environmental impacts, public health issues and worker safety.

Technical Analysis and Presentation

- Performs mechanical engineering analysis of designs for complex mechanical engineering analysis of designs for systems such as combustion chambers and steam boilers, turbine generators, heat transfer systems, air quality abatement systems, cooling water tower systems, pumps and control systems
- Review and process compliance submittals in accordance with the California Environmental Quality Act, the Warren Alquist Act, the Federal Clean Air Act and the California and Federal Occupational Health and Safety Acts to assure compliance of projects
- Provides licensing recommendations and function as an expert witness in regulatory hearings.
- Provide public health impact analysis to assess the potential for impacts associated with project related air toxic/non-criteria pollutant emissions.
- Evaluate the potential of public exposure to pollutant emissions during routine operation and during incidents due to accidents or control equipment failure
- Provide an engineering analysis examining the likelihood of compliance with the design criteria for power plants and also examine site specific potential significant adverse environmental impacts

Technical Skills

- Establish mitigation that reduces the potential for human exposure to levels which would result in significant health impact or health risk in any segment of the exposed population.
- Assist with on-site audits and inspection to assure compliance with Commission decisions.
- Review and evaluate the pollution control technology applied to thermal power plants and other industrial energy conversion technologies.
- Work with the following software applications: WORD, Excel, and PowerPoint.

Policy Advisor

- Provided policy, administrative and technical advice to the Commissioner Robert Pernell. My work with the Commissioner focused on the policy and environmental issues related to the Commission's power plant licensing, research and development and export programs.
- Track and provide research on varied California Energy Commission (CEC) programs. Prepare analysis of economic, environmental and public health impacts of programs, proposals and other Commission business items.
- Represent Commissioner's position in policy arenas and power plant siting discussions.
- Write and review comments articulating commission positions before other regulatory bodies including Air Resources Board, California Public Utilities Commission, and the Coastal Commission.
- Wrote speeches for the Commissioner's presentations.

EDUCATION

Bachelor of Science, Chemical Engineering
Drexel University, Philadelphia Pennsylvania

Continuing Education

*Hazardous Material Management Certificate, University California Davis
Urban Redevelopment and Environmental Law, University of California Berkley
Analytical Skills, California Department of Personnel Administration (DPA) Training Center
Legislative Process/Bill Analysis, DPA Training Center
Federally Certified Environmental Justice Trainer*

DECLARATION OF DAVE VIDAVER

I, Dave Vidaver, declare as follows:

1. I am presently employed by the California Energy Commission in the Supply Analysis Office of the Energy Assessments Division as an Electric Generation System Program Specialist 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 Air Quality and Alternatives for the Puente Power Project based on my independent analysis of the Petition to Amend 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 issue 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: 10/27/16 Signed: *David Vidaver*

At: Sacramento, California

Dave Vidaver

Supply Analysis Office

Energy Assessments Division

California Energy Commission

(916) 654-4656

david.vidaver@energy.ca.gov

Employment (all with the California Energy Commission)

Electric Generation System Program Specialist II, Electricity Analysis Office 2011 – present

Senior analyst responsible for evaluation of procurement, resource adequacy and renewable generation development policies, potential impacts of generation resource development on greenhouse gas emissions.

Electric Generation System Specialist III, Electricity Analysis Office, 2005 - 2011

Supervisor of Procurement and Resource Adequacy Unit, supervise nine staff responsible for evaluating utility procurement and resource adequacy, combined heat and power and distributed generation issues, role of aging and once-through cooled power plants, compiling and maintaining office databases.

Energy Commission Specialist II, Demand Analysis Office, 2005

Monitoring near-term load growth at utility and regional level across the WECC; assessing load-temperature relationships for California and major western utilities and long-term changes in temperatures and load-temperature relationships.

Electric Generation System Specialist II, Electricity Analysis Office 2002 – 2005

Supervisor of Electricity System Modeling Unit; supervised four staff responsible for studies of resource adequacy, market price forecasts, emissions and fuel use studies, assessments of market conditions, role of aging power plants; contributing and principal author of numerous reports, papers, and presentations,

Electric Generation System Specialist I, Electricity Analysis Office, 1998 – 2002

Simulation modeling of WECC for studies of resource adequacy, market price forecasts, emissions and fuel use studies; assessments of market conditions; contributing and principal author of numerous papers, reports and presentations.

Education

BA, Political Science, University of California, Berkeley

MS, Agricultural Economics, University of California, Davis

Additional Information

Member of the Northwest Power and Conservation Council's Generation Resource Committee, which characterizes the cost and performance of generation technologies for studies undertaken in support of the Council's 5-year power plans; numerous reports at conferences and symposia on topics ranging from natural gas demand in California's electricity sector to implementation of resource adequacy measures in California during 2001- 2004; participant in collaborative proceedings with CPUC (resource adequacy, long-term procurement).

DECLARATION OF
Carol Watson

I, Carol Watson, declare as follows:

1. I am presently employed by the California Energy Commission in the Siting, Transmission and Environmental Protection Division as a staff biologist.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I helped prepare the staff testimony on Biological Resources for the Puente Power Project based on staff's and my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and staff's and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue 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: 10-31-16 Signed: 

At: Sacramento, California

**Carol Watson
Sacramento, CA
Cell: 702-370-1019**

ACADEMICS	M.S. Zoology, Eastern Illinois University Focus: environmental ecology; population dynamics Teaching Assistantship	2000
	.B.S., Biology, Western Michigan University Chemistry Minor	1998
WORK EXPERIENCE	California Energy Commission Sacramento, CA Siting Transmission & Environmental Protection Division	2/2010 - Present

Regulatory Responsibilities: Analyze power plants over 50MW, including solar thermal, photovoltaic, natural gas, and coal technologies. Analyze applications to permit, construct, and operate new projects, conduct CEQA-certified regulatory program under the Warren-Alquist Act. The Energy Commission has authority to take the role of the California Department of Fish and Wildlife (CDFW) in processing and issuing 1600 and 2081 permits, assess compliance with US Fish and Wildlife Service (USFWS) Section 7 process and/or Section 10 process Regional Board 401 compliance, and US Army Corps (Corps) 404 permits. Carol has extensive experience working on large scale permitting projects in the Mojave and Colorado Deserts. These projects involved CDFW Sections 1600 and 2081 coordination, Endangered Species Act Section 7 consultation, coordination with the BLM, CDFG, and USFWS; along with development of appropriate mitigation.

Compliance Responsibilities: Provide compliance oversight for permitted projects during all stages: construction, operation, and closure, ensure proper implementation of mitigation and resolve biological-related construction issues. Synthesize developing regulations (REAT agency, DRECP Sec. 10 process among others) and relevant legislation to ensure Energy Commission compliance. Coordinate with— and negotiate— solutions with diverse entities as BLM, USWS, Water Quality Control Board, US Army Corps of Engineers, Governor's Office liaisons to the Energy Commission, private interest groups, and solicitors working on behalf of these interests. Representative projects span solar thermal thermal, gas, and photovoltaic.

Expert Witness for the State: Responsible for testifying before the Commission on active Siting and Compliance projects, including preparation and delivery of testimony, rebuttal testimony, and post-hearing briefings as specifically requested by the Committee. Carol has testified for the Hidden Hills Solar Electric System, Blythe Solar Electric Project, Palen Solar Power Project, and other coal—and gas—fired power plants across California.

Principal Scientist	Parsons Corporation Las Vegas, Nevada	10/2004 - 12/2010
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Principal scientist from 11/2008 to 2/2010. Worked in-house with client, the Southern Nevada Water Authority, for the Southern Nevada Water Authority Pipeline Project. Prepared Environmental Species Act Section 7 Permit. Species included desert tortoise, desert pupfish, and other threatened and endangered aquatic and upland species in Mojave and Great Basin habitat ranging from southern to northern Nevada. Field work conducted in support of the Biological Assessment included: general site surveys, threatened spring snail (*Pyrgolopsis* spp.) counts, conducted sage grouse telemetry, mist netting for bats, Amargosa toad surveys in Death Valley, Nevada, and assisting the Nevada Department of Wildlife with bat telemetry

studies.

From 9/2005-11/2008 served on consultant basis from Ann Arbor, Michigan. Prepared EIS/EIR analysis for impacts to peregrine falcon and special status bat species from the Gerald Desmond Bridge Project, in the Port of Long Beach, California.

Project Scientist: From 2004-2007 served as project scientist in Pasadena, California. Duties included mapping riverbank vegetation of the Virgin river, from the lower reach in Nevada through the confluence with Lake Mead. Ground-truthed plant assemblages based on aerial imagery and 3-dimensional (stereoscopic) views of vegetation. Familiar with cadastral and rastral imagery analysis.

Project Biologist

**Enercon
Tulsa, Oklahoma**

9/2006-11/2008

Fulltime from 7/2008-11/2008, consulting status from 9/2006 to 11/2007. Served as project biologist, performing a range of work from baseline surveys for the Oklahoma Department of Transportation, preparing NEPA documents, preparing and responding to Requests for Proposals and Requests for Qualifications. Representative projects include coordination of environmental studies and preparation of an Environmental Assessment for the Federal Highway Administration, on behalf of Kellogg Engineering, in Rogers County, Oklahoma. Conducted public scoping and agency solicitation, attending county plenary sessions as technical environmental consultant. Prepared an Environmental Information Document for the Environmental Protection Agency for the expansion of the Rural Water District #3 Tacora Water Treatment plant in Rogers County, OK. Conduct protocol surveys for the federally endangered American burying beetle on behalf of clients such as Chesapeake Operating Systems, OKDOT, and Panther Energy Company; surveyed new pipeline routes from Oklahoma though northern Texas for OG&E.

Representative Project: City of Moreno Valley, Riverside Co., California. Prepared Caltrans' Natural Environment Study for improvements to SR-60 at the Moreno Beach Drive and Nason Street interchanges. Studies included oversight of a jurisdictional delineation of wetlands and waters of the U.S., and coordination with project engineers to determine project boundaries and impacts. Developed mitigation in conformance with the Western Riverside County Multiple Species Habitat Conservation Plan.

Wildlife Biologist

**BonTerra Consulting
Pasadena, California**

2/2004 – 10/2004

Draft RFQ/RFP, perform general biological surveys on behalf of public and private sector clients, and prepare CEQA/NEPA documentation. Representative Project: Plum Canyon Development, Los Angeles Co., California: Conducted salvage (pitfall trapping & grubbing salvage) and relocation of sensitive and local populations of reptiles and amphibians. Species handled included Western spadefoot toad, coastal western whiptail, and silvery legless lizard. Coordinated with CDFG regarding species of special concern, drafting relocation plans, and assisted with developing a protocol to simulate and force spring emergence and subsequent relocation of spadefoot toads prior to grubbing.

Wildlife Biologist

**Sapphos Environmental, Inc
Pasadena, California**

12/2000-2/2003

Responsible for all phases of project management and biological technical work. Responded to and prepared RFP/RFQ, designed and conducted environmental study sufficient to project details (*i.e.* determination and development of appropriate ESA, NEPA, CEQA, Clean Water Act permits); and prepared environmental documentation. Prepared and conducted all

public noticing and scoping per regulations, and prepared as technical consultant before the county and city and planning committees of Ventura and Los Angeles.

Representative Project: Ahmanson Ranch, Ventura County, California: Conducted long-term monitoring of a population of California red-legged frog with detailed notes as to location, behavior, and conditions. Assisted permitted biologists in placing passive integrated transponders, or PIT tags, as part of a radio telemetry study designed to aid understanding of habitat use and foraging distances. Assisted with the preparation of a Biological Assessment for an Endangered Species Act Section 7 consultation. Managed the design and creation of enclosed habitat and a captive breeding program, and associated Safe Harbor Agreement. Prepared monthly status reports, and conducted various studies at the Ahmanson Ranch, including San Fernando Valley spineflower introduction studies, seed counts and collections, and oak tree surveys and assessments.

RELEVANT TRAINING & Affiliations

- Member of inter-agency Raven Management Group, as a representative of the Energy Commission
- Expert Witness Legal Training: California Energy Commission, 2015
- Desert Tortoise Surveying, Monitoring, and Handling Workshop, (2000)
- BLM certified to survey for the flat-tailed horned lizard (2001)
- California red-legged frog workshop (2001)
- Passed U.S. Fish and Wildlife Service survey exam for El Segundo blue butterfly (2002)
- American Burying Beetle Bait-away Surveys and Pitfall Trapping (performed under a permitted biologist' supervision), 2006-2007
- CPR/First Aid & AED certified

DECLARATION OF LISA WORRALL

I, Lisa Worrall, declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Protection Office of the Siting, Transmission, and Environmental Protection Division 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 Socioeconomics for the Puente Power Project based on my independent analysis of the Application for Certification 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 issue 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: _____

July 25, 2016

Signed: _____

Lisa Worrall

At: _____

Sacramento, California

LISA WORRALL

Summary

- Preparation of environmental documents in compliance with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), California Energy Commission siting regulations, and federal, state and local laws, ordinances, regulations and standards (LORS).
- Projects include thermal power plants, private residential and commercial development, county and public works, and state transportation.

Employment Experience

California Energy Commission Planner II

Sacramento, California
January 2010 to Present

- Prepare an independent CEQA analysis of the environmental impacts from thermal power plants related to land use, socioeconomics, and traffic/transportation.
- Evaluate projects in accordance with CEQA, the California Energy Commission siting regulations, and federal, state and local LORS.
- Review information provided by the project applicant and other resources to assess the environmental effects of energy facility proposals

Sacramento County Department of Environmental Review & Assessment

Associate Environmental Analyst

Sacramento, California
April, 2006 – May, 2009

- Prepared a variety of environmental documents in compliance with CEQA, NEPA and local, state and federal LORS.
- Conducted project site assessments, reviewed engineering plans, and researched and interpreted scientific data for project impact analysis.
- Managed multiple public works and private development projects with a variety of environmental concerns and overlapping deadlines.
- Maintained effective relationships with other Sacramento County departments, agencies, and service providers to ensure comments and recommended conditions of project approval were obtained and any associated environmental impacts assessed.

Analytical Environmental Services

Associate

Sacramento, California
April, 2004 – October, 2005

- Interpreted highly technical traffic impact studies, utilizing the information to develop a traffic impact assessment chapter for use in a variety of environmental documents complying with CEQA, NEPA, and county and city transportation policies and codes.
- Managed the preparation of traffic studies, including developing the scope of study, securing the contract, and reviewing the work product.
- Managed multiple private development projects simultaneously under tight deadlines. Clients included Native American tribes and cities.
- Coordinated with state, county and city officials in the development of traffic study methodology, parameters and assumptions for proposed projects.

- Worked closely with transportation engineers to understand the complexities of each project's specific traffic impacts.

California Department of Transportation (Caltrans)
Associate Environmental Planner
Environmental Planner

Fresno, California
March, 2003 – March, 2004
August, 2000 – March, 2003

- Prepared all levels of environmental documentation for transportation projects in compliance with CEQA and NEPA.
- Coordinated and interpreted environmental technical studies for incorporation into the environmental document and for explanation to other team members, agencies, and the public.
- Managed and represented environmental concerns with other functional units.
- Led and participated in public outreach events.
- Coordinated project development with other Caltrans departments, agencies and the public.

Education

California State University, Northridge
Bachelor of Arts in Geography

May, 2000