State Of California

Memorandum

The Resources Agency of California

Date: November 23, 2009

Telephone: (916) 653-8236

To: Chairman Karen Douglas, Presiding Member
Commissioner Arthur H. Rosenfeld, Associate Member
Hearing Officer Raoul Renaud

From: California Energy Commission – Alan Solomon, Project Manager
1516 Ninth Street
Sacramento, CA 95814-5512

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Subject: **STAFF'S ERRATA TO THE FSA**

At the November 17, 2009 Pre-Hearing Conference, staff and applicant agreed on several changes and corrections to the Final Staff Assessment. At the request of the Hearing Advisor, staff is submitting the following errata to the FSA:

Executive Summary

- Page 1-2 (Project Location and Description)

Process water for ~~non-cooling;~~ industrial needs~~, and potable water for drinking and sanitary needs~~ would be supplied via the existing TPP pipeline from the Delta-Mendota Canal by the Byron Bethany Irrigation District. Drinking water will be provided from bottled sources.

Project Description

- Page 3-4 (Project Construction and Operation)

If approved by the Energy Commission, the applicant proposes to begin project construction during the fall of 2010 ~~second quarter of 2011~~. It would take 24 months to complete the project. Construction is expected to cost approximately $232 million. The applicant expects that commercial operation would begin in June 2012 ~~the second quarter of 2013~~.

Actual construction would take place over approximately 22 months, from third quarter 2010 ~~2011~~ to second quarter 2012 ~~2013~~. Personnel requirements would be minimal during the mobilization and site grading period (the first 3 months of the construction period) and during the startup and testing period (the last 3 months of the construction period).

Biological Resources

- Page 4.2-5 (Project Site and Vicinity Description)

The proposed 12.3 ~~15.58~~-acre construction and laydown/parking area is a previously disturbed portion of the 40-acre parcel outside of the currently fenced TPP; it is currently open, ruderal grassland.

PROOF OF SERVICE (REVISED 2/25/09) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 11/23/09
AA

- Page 4.2-21 (Avian Collision)

Staff proposes in Condition of Certification **VIS-5** that the tallest structures (the exhaust stacks and the natural gas fired auxiliary boiler exhaust stack ~~natural gas stack~~) shall not be lighted at night with hazard lighting.

- Page 4.2-33 (Condition of Certification, **BIO-9** Verification)

Within 30 days after completion of project construction ~~and reconductoring~~, the project owner shall provide to the CPM and SJCOG, for review and approval, a written construction termination report identifying how all biological resource-related conservation measures were completed.

Cultural Resources

- Page 4.3-5 (Vicinity, Site, and Project Description)

TL3, an approximately 1.6 ~~2.5~~-mile segment of the Vierra-Tracy-Kasson 115-kV transmission line running parallel to I-5 adjacent to Mossdale Road.

- Page 4.3-34 (Condition of Certification, **CUL-6**)

If, during other ground disturbance at the project site~~, along the linear facilities routes,~~ and at laydown areas, roads, and other ancillary areas, any buried archaeological materials, as defined in the CRMMP, are discovered, the discovery shall immediately be reported to the construction supervisor, who shall halt or redirect ground disturbance in an area around the discovery sufficiently large to ensure that the resource is protected from further impacts, and who shall notify the project owner of the discovery.

Public Health

- Page 4.7-11 (Emissions Sources)

The emissions sources at the proposed GWF Tracy project include two ~~one~~ combustion turbine generators, one auxiliary boiler, one diesel-fueled fire pump, and one existing diesel-fueled emergency generator.

Soil and Water

- Page 4.9-24 (Water Supply)

Allocations to M&I users below 40% would reduce the allocation to GWF Tracy below the maximum need of 54.4 AFY. ~~Reductions of 40% to M&I users would be required to limit the allocation to GWF Tracy to the maximum need of 54.4 AFY.~~

- Page 4.9-34 (Replace Condition of Certification, **Soil & Water-5**)

SOIL & WATER-5: The project owner shall provide CEC staff with all permits related to the commercial septic system on the Tracy Peaker Plant site to verify compliance with the San Joaquin County Department of Environmental Health requirements.

Verification: The project owner shall provide the commercial septic system permit to the CPM for approval.

~~**SOIL & WATER-5:** The project owner shall comply with the requirements of the San Joaquin County Code, Title 9, Division 11: Infrastructure Standards and Regulations, Private Onsite Wastewater Disposal Facilities~~

~~Regulations regarding a Sanitation Permit for sanitary waste disposal facilities including GWF Tracy's septic system and leach field.~~

~~**Verification:** The project owner shall submit all necessary information and the appropriate fee to county of San Joaquin – Environmental Health Division and request their review and comment on the permit application. The project owner will provide any comments to the CPM. The CPM will determine whether the project has complied with the county's sanitary waste disposal facilities requirements and provide written approval for development and use of the disposal facility.~~

Traffic and Transportation

- Page 4.10-14 (Operation Impacts and Mitigation)

GWF Tracy operations would require on average 11 delivery truck trips per month and 34 worker daily round trips, based on 17 full-time employees (GWF Energy, pp. 5.12-16 and 2-17). Therefore, the operations-related and maintenance-related traffic associated with the project is minimal and insignificant when added to major movements on freeways and local roadways. Therefore, staff finds that the GWF Tracy project operations would have no impact on study area roadways or intersection LOS. Consequently, no operations-related mitigation measures are required.

Transmission Line Safety and Nuisance

- Page 4.11-4 (Setting)

In addition to the new on-site GWF Tracy connection line, two other segments of the existing TPP connection with the Kasson ~~Tesla~~ Substation would be upgraded at specific points downstream from the first point of connection at the site.

Visual Resources

- Page 4.12-6 (Linear Facilities, 3rd Item)

Placement of six ~~two~~ 45-foot tall, 5.5-foot diameter, tubular steel transmission structures necessary to loop PG&E's Tesla-Kasson 115-kV line through the southeastern corner of the site. The existing Tesla-Kasson 115-kV line is adjacent to the project site.

- Page 4.12-6 (Linear Facilities, 4th Item)

Reconduction of the 2.5 mile section of the Vierra-Tracy-Kasson 115 kV line ~~and the possible reconduction of the 8.9 mile section of the Schulte SW ST-Kasson-Manteca 115 kV line in lieu of staff's preferred mitigation of installing a special protection system~~.

- Page 4.12-24 (Condition of Certification, **VIS-4**)

VIS-4 GWF Tracy will extend the footprint of the current Tracy Peaker Project ~~approximately four~~ 3.28 acres. Applicant has proposed continuing for those ~~four~~ 3.28 acres the landscaping plan as proposed in Condition of Certification **VIS-1**, as modified in the *Supplement to Staff Assessment on Tracy Peaker Project*; California Energy Commission, February 1, 2002.

This Condition of Certification **VIS-4**, designed to ensure the continuation of this previously-approved and revised landscaping plan~~,~~ requires the continuation of the planting of ~~Fremont cottonwoods (Populus fremontii); western rebud (cercis occidentalis); and elderberry~~

~~(sambucus Mexicana)~~ trees and shrubs along the northern, eastern, and western edges of the ~~four~~3.28 acres added to the site by the construction of GWF Tracy.

Verification: At least 30 (thirty) days prior to start of ~~construction~~landscape installation, the project owner shall submit the revised perimeter landscape plan to the San Joaquin County Community Development Department for ordinance consistency review and comment and to the CPM for review and approval. This plan, designed to continue the landscaping of the same trees and shrubs approved ~~proposed~~ for the TPP~~, shall consist of Fremont cottonwoods (Populus fremontii); western rebud (cercis occidentalis); and elderberry (sambucus mexicana) trees~~ to be planted along the northern, eastern, and western edges of the entire site. The continuation of the previous landscaping plan to include the ~~four~~3.28 acres added by the construction of GWF Tracy will help to blend GWF Tracy with its surroundings~~ and comply with local ordinances~~.

If the CPM notifies the project owner that revisions of the submittal are needed before the CPM will approve the submittal, within 15 (fifteen) days of receiving that notification, the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within 7 (seven) days after completing installation of the landscape screening that the planting and irrigation system are ready for inspection.

- Page 4.12-24 (Condition of Certification, **VIS-5**, G)

Design the new 150-foot exhaust stacks and the 50-foot natural gas fired auxiliary boiler exhaust stack ~~natural gas stack~~ such that they shall not be lighted at night with hazard lighting (CH2M 2009f) – any steady task-related lighting on these structures shall remain off except when needed for human access.

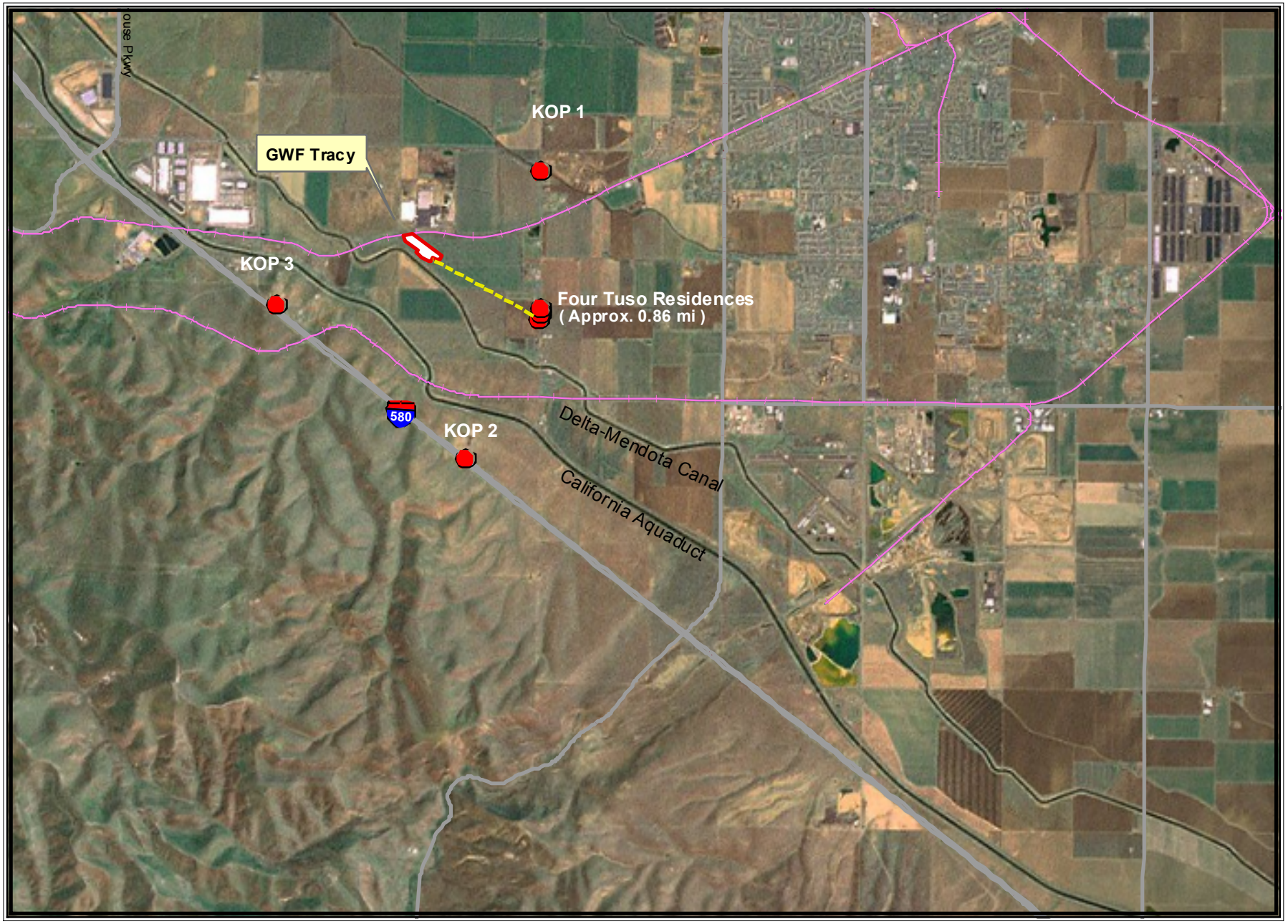
- Visual Resources Figure 9, GWF Tracy Combined Cycle Power Plant Project—Intervenors' Property Locations.

Replace with revised Visual Resources Figure 9 (Attached.)

VISUAL RESOURCES FIGURE 9

GWF Tracy Combined Cycle Power Plant Project - Intervenors' Property Locations

NOVEMBER 2009



VISUAL RESOURCES

CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION, NOVEMBER 2009

SOURCE: Google Earth - Specific Plan Tracy Hills Development, City of Tracy

DECLARATION OF

I, Alan Solomon 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 a Project Manager.

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

3. I helped prepare the staff testimony and errata on **(Executive Summary and Project Description)** for the GWF Tracy 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 and errata 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: November 18, 2009 Signed: Original signature in Dockets

At: Sacramento, California

Alan H. Solomon
2639 Bradford Way
West Sacramento, California 95691
(916) 371-4507 (home)
(916) 653-8236 (work)

Career Experience:

State of California, California Energy Commission
Project Manager, STEP — Oct 2008-Present
Conduct analyses of proposed or potential site areas; develop and recommend goals and objectives for a statewide facility siting program; develop, analyze and evaluate alternative facility siting plans; write research reports and prepare progress reports on plans; coordinate and review energy facility siting standards, conditions, and guidelines with Federal, State, regional, and local agencies, and related organizations involved with energy facility siting; conduct public hearings and work with residents. Working team leader or lead person over a group of specialists on complex projects.

State of California, Department of Mental Health
Ombudsman, System of Care — Nov 2005-Oct 2008
Lead person for the Department of Mental Health's Office of the Ombudsman. Assist people with their mental health concerns and questions. Making recommendations to policy decision makers. Conduct presentations and act as public liaison with outside mental health organizations. Work with internal Department of Mental Health staff in addressing countywide areas of concern. Analyze policy and legislation. Research compliance and regulatory issues, write reports, problem solving, and training.

State of California, Department of Social Services
Program Consultant, Office of Child Abuse Prevention — Sept 2004-Nov 2005
Assist with the development of the CWS Redesign within the State of California. Facilitate meetings related to the Differential Response aspect of the CWS Redesign, (these meetings include general Workgroup meetings, as well as, the Community Partnership, CWS/CMS Database, and Evaluation Task Groups). Assist on the Citizen Review Panel Workgroup. Analyze Child Welfare Services policy and legislation. Research compliance and regulatory issues. Develop databases and survey mechanisms. Write reports, issue papers, and All County Letters. Problem solving and public liaison.

State of California, Department of Health Services
Program Consultant, WIC Branch — Nov 2003-Sept 2004
Working with local and CBO WIC agencies. Tracking information, contract management, and ensuring quality assurance. Investigate alleged problems and assist the public with their problems, questions, concerns, special needs, and correspondence. Analyze policy and legislation. Research compliance and regulatory issues. Write reports, problem solving, public liaison, and staff/county training.

State of California, Department of Social Services
Program Consultant, Children's Services Operations Bureau — April 2000- Nov 2003
Assist Californian Counties with Children's Welfare Services (CWS) concerns, issues, and training. Assist the public with their CWS problems, questions, concerns, special needs, and correspondence. Investigate alleged problems within County CWS systems and child death issues. Analyze Child Welfare Services policy and legislation.

County of Sacramento, Department of Human Assistance
Human Services Specialist /Russian Community Liaison — Oct 1995-April 2000
Develop and conduct public assistance training; active participant on the School Attendance Review Board (SARB) Hearings; truancy sweeps; and, leadperson for Eligibility Trainees. Liaison between DHA and former Soviet Community; writing a bi-weekly column for a Russian-language newspaper; public relations; problem solving; and, community outreach.

Education: California State University, Long Beach – Bachelor of Arts, Political Science, May 1989
Certified in Russian Language and Culture

DECLARATION OF

Anne Wallace

I, **Anne Wallace,** 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 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 and errata on biological resources for the GWF Tracy 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 and errata are 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: November 18, 2009 Signed: Original signature in Dockets

At: Grass Valley, California

Anne Wallace

Certified Wildlife Biologist

Education

MS	Wildlife Science (1988)	Utah State University	Logan, UT
BS	Fisheries and Wildlife (1984)	Utah State University	Logan, UT

Employment History

2004-present	Principal/Senior Biologist	EcoBridges Environmental	Grass Valley, CA
1995-2004	Principal/Senior Biologist	Ibis Environmental, Inc	Grass Valley, CA
1990-1995	Wildlife Biologist	BioSystems Analysis, Inc	Tiburon, CA
1989-1990	Natural Resource Specialist	Spectrum Sciences and Software	Logan, UT
1988-1989	Research Technician	USFS Intermountain Research Station	Logan, UT
1986-1987	Consultant	Bio/West, Inc	Logan, UT
1986	Wildlife Biologist	US Fish and Wildlife Service	Honolulu, HI
1984-1987	Graduate Assistant	Utah State University Foundation	Logan, UT
1983-1984	Biological Technician	Utah State University	Logan, UT
1983	Biological Technician	Utah Division of Wildlife Resources	Ogden, UT

Professional Summary

Principal of EcoBridges Environmental, formerly cofounder of Ibis Environmental, Inc, Ms Wallace is a certified wildlife biologist with 26 years of experience (19 years in California) in a range of natural resource investigations including wildlife research, inventory, and survey techniques; trapping and tagging methods; technical writing; and technical editing. She specializes in endangered species surveys, habitat and impact assessment, and environmental compliance, having studied birds, mammals, fishes, reptiles, and plants. She has extensive experience with NEPA, CEQA, state/federal endangered species acts, the federal Clean Water Act, and all other relevant local, state, and federal regulations.

Ms Wallace's primary focus has been on identification, biology, and distribution of birds, especially raptors and wetland/riparian species. She has: flown and piloted aerial surveys of waterfowl and white pelicans; ground-surveyed nesting waterfowl and shorebirds; trapped, banded, and counted migrating raptors; banded raptor nestlings; surveyed and banded nesting colonial seabirds; conducted USFWS breeding bird surveys and Christmas bird counts; located sandhill crane nests by helicopter; and spent countless hours surveying threatened and endangered birds. In addition, she has conducted many San Joaquin kit fox surveys; monitored small-mammal traplines; and trapped, tranquilized, and tagged American marten. She has surveyed many California sensitive wildlife, following approved protocols where appropriate, including red-legged frog; yellow-legged frog; tiger salamander; branchiopods; tricolored blackbird; valley elderberry longhorn beetle; least Bell's vireo; sandhill crane; San Francisco garter snake; pond turtle; raptors, such as burrowing owl, goshawk, Cooper's hawk, spotted owl, and Swainson's hawk; California clapper and black rail; salt-marsh harvest mouse; western snowy plover; willow flycatcher (including southwestern subspecies); blunt-nosed leopard lizard; an endangered butterfly; and others, including rare plants.

Much of Ms Wallace's experiential background has been in and around freshwater wetlands, wet meadows, salt marshes, riparian zones, and their associated uplands, particularly in northern California, but she has also worked extensively with species in the grasslands and foothills associated with the Central Valley. Her work has also taken her to a variety of riparian, desert, coastal, and mountain habitats in Oregon, Utah, Idaho, Montana, Wyoming, Colorado, New York, and Hawaii, working on projects such as pipelines, transmission lines, highways, recreation trails, mine-site reclamation, geothermal development, Air Force airspace actions, windfarms, FERC hydroelectric relicensing, marsh restoration, and many others. Clients include cities, counties, state agencies, federal agencies, utilities, private developers, and nonprofits.

Selected Professional Experience

- Using field surveys, GIS, GPS, and aerial photos, documented potential and actual occurrence of all special-status wildlife and fishes in every span of 814 miles of existing transmission line ROW, as well as along 300+ miles of ROW access roads and at four communications sites in northern California (from Oregon border to central CA). Co-wrote species-specific project conservation measures for every special-status animal and fish potentially affected. Wrote wildlife and fisheries sections of NEPA EA and was technical editor for draft EA and final EA. Prepared two section 7 biological assessments (for USFWS and for NMFS). Currently engaged in section 7 consultation with USFWS and NMFS.

- Field surveys along 16 miles of transmission line corridor and 50 miles of access roads, using GIS, GPS, and aerial maps, to document potential occurrence of special-status invertebrates, fishes, amphibians, reptiles, birds, and mammals in Trinity County.

- Baseline data collection on California tiger salamanders (including dipnetting), western spadefoot toads, fairy shrimps, San Joaquin kit foxes, foothill yellow-legged frogs, and western pond turtles in appropriate habitats on portions of 47,000 acres of vernal pool grasslands in eastern Merced County.

- Dipnetting and seining for CTS and vernal pool branchiopods for a development project in Valley Springs, Calaveras County, a proposed large-rock mine southeast of Sacramento, and annual continuing-education sampling in Sacramento and Yolo counties.

- NEPA and federal ESA compliance for Indian Gaming project for tribal nation in west-central Sierra foothills: wetlands, California red-legged frogs, and valley elderberry longhorn beetles.

- Ten years of monitoring California red-legged frogs and San Francisco garter snakes at West-of-Bayshore property, San Mateo County, San Francisco International Airport, during annual cattail management. Additionally, intensive monitoring of California red-legged frogs and San Francisco garter snakes for canal dredging operation, and monitoring for a number of other maintenance activities annually since late 1990s.

- Protocol surveys for least Bell's vireo on a tributary of the Pajaro River (Santa Clara County) for proposed flood-control project.

- Permitting, preparation of Caltrans Natural Environment Study, section 7 consultation for California red-legged frogs, for El Dorado County bridge widening and sewer pipe-replacement project. Responsible for sensitive wildlife and plants, wetlands, and cultural/archaeological resources.

- Ongoing (since 2000) on-call surveys, habitat assessments, and impact assessments for California red-legged frogs, western pond turtles, California least terns, and nesting shorebirds and waterfowl for a 2400-acre long-term, multiphase tidal wetland restoration project at Montezuma Slough and Suisun Bay, Solano County, including annual nest monitoring for new least tern nesting colony.

- Impact assessment and consultation for SF Public Utilities Commission project along Alameda Creek in Sunol Valley. Proposed fishery habitat improvement through increasing reservoir releases and water recapture facilities. Evaluation and consultation on potential impacts to California red-legged frogs, Alameda whipsnakes, foothill yellow-legged frogs, special-status raptors, and a variety of other birds and amphibians.

- Prepared initial alternatives analysis report and technical lead (wildlife, wetlands, botany) on joint NEPA/CEQA Environmental Assessment/Initial Study for a complex and controversial bicycle trail proposal through Bay wetlands, San Mateo County, involving wetland impacts, endangered species impacts (California clapper rail and salt-marsh harvest mouse), private property issues, airport/airspace safety concerns, and recovery habitats named in a recovery plan. Impact assessment and mitigation development. High degree of public involvement. Prepared BA. Complex interagency coordination with USFWS, CDFG, NMFS, EPA, BCDC, RWQCB, Coastal Conservancy, U.S. Coast Guard, FAA, and manager of a local airport.

Selected Professional Experience

- Sensitive-species surveys for several phases of a natural gas pipeline (site assessment, pre-construction, and monitoring), and route selection and site assessment for a transmission line in northeastern California. Species included sandhill cranes, Cooper's hawks, sharp-shinned hawks, willow flycatchers, Swainson's hawks, yellow warblers, tricolored blackbirds, black terns, prairie falcons, desert kit foxes, burrowing owls, pygmy rabbits, and the rare plants *Eriogonum nutans* var. *nutans* and *Sphaeralcea grossularifolia*. Conducted five helicopter surveys to locate greater sandhill crane nests.

- Initial assessments and constraints analysis for several alternative sites and facilities for expanded wastewater treatment facility in Amador County. Responsible for special-status wildlife (including California red-legged frog) and plants, wetlands, and cultural/historical resources.

- Foothill yellow-legged frog and pond turtle surveys along Middle and South forks of the Stanislaus River for PG&E FERC hydroelectric relicensing project, in spring and early summer for egg masses, in mid to late summer for tadpoles, and in fall for metamorphs.

- Foothill yellow-legged frog surveys in six tributaries to the North Fork Feather River for PG&E hydroelectric relicensing project for juveniles and adults.

- Four-year study and monitoring of foothill yellow-legged frogs throughout the North Fork Mokelumne River for PG&E FERC hydroelectric relicensing. Spring/early summer surveys for egg masses included snorkeling. Also mid to late summer surveys for tadpoles, fall surveys for metamorphs, and juveniles and adults found throughout the season.

- Study to evaluate potential impacts of short-term power-generation water releases on foothill yellow-legged frog tadpoles in late summer for PG&E. Conducted pre-release, mid-release, and post-release tadpole surveys, and measured wetted perimeter changes for mid-release and post-release flows.

- Habitat assessment and field surveys for California red-legged frogs in support of PG&E's relicensing efforts for the Mokelumne River Project. Surveys encompassed more than 60 sites in Amador and Calaveras counties along the Mokelumne River drainage.

- Habitat assessment and field surveys for California red-legged frogs in support of PG&E's relicensing of the Rock Creek/Cresta hydroelectric project. The project area includes about 100 miles of transmission line and the Feather River drainage above Lake Oroville.

- Ran a 6-week pine marten trapline in High Uintah Mountains, Utah, alone. Captured (or recaptured), tranquilized, banded, processed, and released 17 marten.

- Protocol surveys for northern spotted owls for Marin Municipal Water District for potential impacts related to instream fishery habitat improvement projects. Located several pairs and one active nest. Monitored spotted owl fledgling.

- Evaluated potential impacts to northern spotted owls and marbled murrelets of a project to improve fishery habitat for steelhead and coho salmon in a Marin County creek. Projects include modification of stream channel by addition of woody-debris structures and beneficial gravel and cobble, construction of two sediment traps, riparian restoration and revegetation, and control of sedimentation through sediment-reduction measures.

- Dozens of protocol surveys for San Joaquin kit foxes including automatic camera stations, track stations, nighttime spotlighting, and ground searches for dens throughout Central Valley, from southern Kern Co north through San Benito, Fresno, Madera, Merced, Monterey, and Contra Costa counties.

- Sensitive-wildlife surveys for Bonneville Power Administration (BPA) powerline in northeastern California. Species included sandhill cranes, raptors (Swainson's hawks, prairie falcons, golden eagles, northern harriers, and others), willow flycatchers, and yellow warblers.

Selected Professional Experience

- Caltrans surveys for San Joaquin kit foxes, Swainson's hawks and other raptors, special-status bats, and tricolored blackbirds for highway bypass in the Central Valley. Caltrans Natural Environmental Study.

- Sensitive-species surveys for proposed geothermal development in Modoc County, California, for private developer, nesting activities and movements of sandhill cranes; goshawk nesting surveys using taped-call playback transects; waterfowl, western snowy plovers, and Swainson's hawks and other raptors.

- Small-mammal trapping study at north and south ends of Golden Gate Bridge for ecorisk assessment. Collected a variety of small mammals for tissue samples at each of 11 distinct study, reference, and ambient/control areas.

- Trapped, banded, and counted migrating raptors for Goshutes Raptor Migration Project, Nevada, and Golden Gate Raptor Observatory, Marin Headlands, California, during many fall migrations. Trapped, banded, measured, and released captured raptors.

- Consultation with USFWS and CDFG regarding impacts of proposed flood-control project to coastal salt marsh and endangered species (California clapper rail and salt-marsh harvest mouse) for Town of Corte Madera in Marin County. Potential impacts included altering tidal flow, habitat conversions, habitat loss, sedimentation, changes in salinity, temporary and permanent construction-related impacts, and indirect and interrelated effects.

- Land-bird surveys for evaluating potential effects of environmental contaminants on local peregrine falcons through the food chain. Study was conducted for the US Navy on Yerba Buena Island, San Francisco Bay. Point-count methods were used to census all birds seen or heard on plots situated throughout the island.

- Small-mammal trapping study at Alameda Naval Air Station (Alameda Co) to collect tissue samples for chemical analysis. 2200 trap-nights completed in a variety of saltmarsh and adjacent upland habitats. More than 200 house mice and rats were collected for analysis of contaminant concentrations in tissue.

- Permitting, formal consultation, and wildlife surveys for biological portions of politically complex, 11-mile pipeline for East Bay Municipal Utility District. Agencies: USFWS (Section 7 consultation), CDFG (2081 MA and/or streambed alteration), RWQCB (401 water quality), Corps of Engineers (404 wetlands). Species and issues: wetlands, rare plants, California red-legged frog, California tiger salamander (including protocol surveys), western pond turtle, nesting raptors.

- Monthly waterfowl surveys for two years in freshwater wetlands around Great Salt Lake for a bird-aircraft strike hazard (BASH) study for Hill Air Force Base, Utah.

- Section 7 consultation and field surveys for federally and commonwealth endangered Puerto Rican boa in Puerto Rico for proposed gravel extraction and housing development in karst rainforest. Biological assessment and mitigation and monitoring plan.

- Small-mammal trapping study at Concord Naval Weapons Station on Suisun Bay (Contra Costa County) with the dual purpose of establishing salt-marsh harvest mouse presence and collecting tissue samples of house mice for analysis of chemical contaminants (ie, PCBs, metals, pesticides, and dioxins). Completed a total of 662 trap-nights in two non-tidal saltmarsh areas. Collected/skinned 68 house mice and deer mice for tissue analysis; captured, weighed, measured, and released 12 SMHM.

- Surveys and data analysis on multi-year study to assess the impacts of wind energy development on raptor populations in the Altamont Pass and Solano County Wind Resource Areas for the California Energy Commission. Study researched the cause, extent, and relative significance of mortality to birds from wind turbine development. Also evaluated the developmental and environmental features that may affect raptor mortality, including turbine type, siting, topography, prey base, and weather patterns. Extrapolated a level of golden eagle mortality that was later demonstrated to be accurate.

Selected Professional Experience

- Ecorisk assessment for four tidal and nontidal wetland sites at Concord Naval Weapons Station (Contra Costa County). Evaluated potential risk to six receptors of a variety of chemicals of potential concern (COPCs). Participated in design of models to simulate passage of COPCs through the food chain using chemical characterizations, habitat descriptions, and natural history information. Site-specific doses were calculated for each of six mammal and bird species.

- Ecological risk assessment for railroad facility in Whitefish, Montana. Habitats of concern were riverine and riparian. Collected field data and evaluated risk to several mammalian, fish, and bird receptors of a variety of chemicals of potential concern (COPCs). Participated in design of models to simulate passage of COPCs through the food chain using chemical characterizations, habitat descriptions, and natural history information.

- Monitored white pelicans for the US Air Force, Hill Air Force Base, Utah. Examined flight corridors, flight patterns, and high-use areas, for a bird-aircraft strike hazard (BASH) study. Also, studied white pelican foraging habitat in northern Utah, including piloting my own aerial surveys, trapping fish for species composition and relative abundance, analyzing fish gut contents, and measuring water quality parameters. Also designed a small study to investigate the feasibility of using primercord, an explosive, as a fish sampling technique in wetland habitats.

- Natural resource specialist and technical editor for four NEPA EAs evaluating potential impacts, including noise and visual disturbance, of a variety of US Air Force airspace actions to wildlife, big game, and endangered species; recreationists; Native American tribes; wild horses and domestic cattle; and designated scenic river values. Actions included changes in aircraft and associated noise levels, and changes to airspace use over both urbanized and wild areas, as well as changes in bombing range use. Study sites were in South San Francisco Bay, upstate New York, Long Island, Idaho, and Oregon.

- Evaluated nine San Francisco Bay wetland complexes for their potential to support special-status birds and amphibians in each of 923 distinct habitat units of different habitat types as part of mitigation planning for San Francisco International Airport runway expansion project. Specifically evaluated potential for California least terns, western snowy plovers, bald eagles, peregrine falcons, California clapper rails, California black rails, brown pelicans, and California red-legged frogs.

- California clapper and black rail surveys along Pinole shoreline, San Pablo Bay, for fiberoptic cable project. Passive listening for clapper rails, taped-call playbacks for black rails. Both species detected.

- California clapper rail and salt-marsh harvest mouse surveys for the Army Corps of Engineers for proposed flood-control modifications to salt marsh, San Francisco Bay, Marin County. Salt-marsh harvest mice were live-trapped, fur-clipped, and released. Recaptures were documented and a population estimate derived. Clapper rail surveys were aural and included use of taped-call playbacks.

- California clapper rail surveys for San Mateo County for proposed bicycle trail. Methods included sunrise and sunset aural censuses for eight weeks. Aural census only. Characterized habitat and assessed habitat quality.

- California clapper and black rail surveys in Emeryville Crescent, Alameda County, for radio-tower construction. Aural census only; both species detected. Mapped calls and estimated size of local population. Consulted with USFWS.

Certifications and Memberships

Certified Wildlife Biologist
Member, The Wildlife Society
Member, Association of Field Ornithology
Recovery permits: California tiger salamander, vernal pool branchiopods, California least tern, and California clapper rail

DECLARATION OF

I, **Beverly E. Bastian** 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 a **Planner II**.

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

3. I helped prepare the staff testimony and errata on **Cultural Resources** for the GWF Tracy Combined-Cycle Power Plant 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 and errata 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: November 17, 2009 Signed: Original signed by Dockets

At: Sacramento, California

Beverly E. Bastian
1516 Ninth Street MS 40
Sacramento, CA 95814-5504
(916) 654-4840 email: bbastian@energy.state.ca.us

Education

School	Field	Degree	Year
University of California, Davis	Anthropology	B.A	1967
University of California, Davis	Anthropology	M.A	1969
Tulane University	Anthropology	A.B.D.	1975
University of Mississippi	American History	(courses only)	1989
University of California, Santa Barbara	Public (American) History and Historic Preservation	A.B.D.	1996

Experience

State of California, California Energy Commission *2005 to present*
Planner II, Energy Facilities Siting Division, Environmental Office, Biological and Cultural Unit,
All tasks related to the production of the cultural resources sections of CEQA-equivalent (California Environmental Quality Act) documents for the environmental review of proposed power plants in California, including: Evaluating data in applications; writing data requests to applicants and doing independent research to compile an inventory of and evaluate the historical/cultural significance of cultural resources subject to significant impacts from proposed projects; providing and receiving information in public hearings on applications; analyzing all pertinent data; writing Staff Assessments of impacts; developing mitigation measures to reduce to insignificant any impacts to significant cultural resources; providing expert testimony on my analyses and findings in public hearings; and reviewing compliance with mitigation measures during the construction, operation, and decommissioning of certified power plants. Additional tasks include: providing prefiling assistance to applicants, reviewing the CEQA documents of sister state agencies; consulting and advising cultural resources specialists in sister state agencies; coordinating and reviewing the work of Commission cultural resources consultants; and developing internal procedures and guidelines to improve cultural resources review of applications.

State of California, Department of Parks and Recreation *2001 to 2005*
Historian II, Cultural Resources Division, Cultural Resources Support Unit
Major and complex historical and historic architectural investigations and studies dealing with the significance, integrity, and management of historic buildings, structures, and landscapes in California's state parks; participation in interdisciplinary teams and project assignments; preparation of technical reports and correspondence; inventorying and evaluating historic properties; coordinating the statewide registration of historical properties; assessing the eligibility of historic properties to the National Register of Historic Places and the California Register of Historical Resources; reviewing environmental documents and providing technical analyses of major Departmental projects to determine impacts to cultural resources under State and federal laws; identifying resource issues and constraints; establishing allowable use and development guidelines; developing approaches to protect, enhance, and perpetuate cultural resources under relevant State and federal laws, regulations, and standards; proposing and developing programs, policies, and budgets to meet Department's historic preservation missions.

Department of Social Sciences, American River College *2000 to 2002*
Instructor (part-time), American History
Creation and presentation of classroom lectures, selection of assigned texts and readings, creation and administration of quizzes and examinations, assignment and supervision of student research papers, student consultation in office hours, grading of all quizzes, tests, and papers, and assigning final student grades. These research, organizing, and teaching skills demonstrate ability to organize information, to speak effectively to the public, and to train and direct other personnel.

Department of Sociology and Anthropology, University of Mississippi *1987 to 1989*
Archaeologist, Center for Archaeological Research
All tasks for the completion of the historical archaeological part of an archaeological survey and testing program final report related to a U. S. Army Corps of Engineers erosion control project in twelve north-central Mississippi counties, including: Coordinating the activities of a field crew and the research of historians working in archives; setting up an artifact database using survey data to generate statistical summaries for discovered historical archaeological sites; gathering historical settlement and land-use data for twelve counties; conducting a special statistical analysis and synthesis of historical data only, focusing on pre-and post-Civil War land tenure and agricultural production for plantations in two counties where soil fertility contrasted; synthesizing data from all sources, collaborating on the final cultural resources management report with archaeologists specializing in prehistory and survey and sampling methodology; presenting findings at the annual meeting of the Society for Historical Archaeology in 1989.

Gilbert Commonwealth, Inc. *1984 to 1987*
Historical Archaeologist and Project Manager, Environmental Unit
All tasks as Principal Investigator for six major historical archaeological and/or historical architectural cultural resources management projects done under contract to federal, state, and local governments, including: Writing winning proposals for these projects; negotiating and managing project budgets; gathering/supervising the gathering of historical, oral historical, and archaeological data; analyzing/supervising the analysis of gathered data; and writing/supervising the writing of reports of findings, along with the creation of maps, illustrations, and data tables for these reports; serving as the historian and historical preservationist on several multidisciplinary teams tasked with siting the routes for several major power lines in east Texas.

Tennessee Valley Authority (personal services contract) *1979 to 1981, 1983-1984*
Historical Archaeologist (self-employed)
All tasks as Principal Investigator for various cultural resources management projects in areas affected by TVA construction, the most significant of which were: the complete excavation of and report on seven nineteenth-century log-cabin sites in Cedar Creek Reservoir in northwestern Alabama; and all historical research, the field work, and the report for the underwater remote-sensing reconnaissance and underwater videotaping of sunken Civil War cargo boats and gunboats at Johnsonville, Tennessee, in the western part of the Tennessee River.

Other Archaeological Projects *1966 to 1981*

Professional Societies

Register of Professional Archaeologists, #10683
Society for Historical Archaeology
National Council on Public History
Vernacular Architecture Forum
Society for California Archeology
California Council for the Promotion of History

DECLARATION OF MARIE MCLEAN

I, Marie McLean, 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 a Planner II.

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

3. I helped prepare the staff testimony and errata on GWF Tracy Combined-Cycle Power Plant 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 and errata 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: Nov. 18, 2009 Signed: Original signature in Dockets

At: Sacramento, California

MARIE McLEAN

QUALIFICATIONS SUMMARY

Twenty years experience in the field of environmental research, analysis, and planning, with specific emphasis on the economics of water, energy, and land use and its social, visual, and cultural ramifications. Specific projects involved (1) assessing economic costs and benefits of water delivery contracts and energy sales; (2) conducting and presenting visual analyses of historic and other local, state, and federal resources; (3) preparing local, state, and federal resource assessment forms; (4) determining and communicating benefits and costs of proposed development projects (housing, energy, and water) on the social and economic life of communities in which they are located; and (5) as member of local design review, historic preservation, and housing boards, recommended programs and policies and monitored their implementation.

RECENT PROFESSIONAL EXPERIENCE

California Energy Commission, Planner II, Environmental Office-Facilities Siting, January 2008—present.

Conduct technical analyses for complex facility siting cases and planning studies in the area of socioeconomics and visual resources.

Electricity Oversight Board; June 1, 2007—December 31, 2008.

Developed, conducted, and presented economic studies on energy markets and transmission projects; California Independent System Operator (CAISO) market redesign and technology upgrade program; and investigated, analyzed, and reported the effects of existing and proposed energy programs on supply, demand, and rates.

California Department of Water Resources, State Water Project Analysis Office, June 2001—July 31, 2007.

Developed and implemented complex analyses of the social, economic, and financial ramifications of contracted and proposed water deliveries and transfers and changes to valuation methods for selling energy in deregulated markets. Researched, identified, and reported on market activities in energy and water and their economic effects on ratepayers.

EDUCATION

Bachelor of Arts, Economics, California State University, Sacramento, 1983

DECLARATION OF

Dr.Obed Odoemelam

I, **Obed Odoemelam** declare as follows:

1. I am presently employed by the California Energy Commission in the Facilities Siting, Transmission, and Environmental Protection Division as a Staff Toxicologist.

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

3. I helped prepare the staff testimony and errata on **Transmission Line safety and Nuisance** for the GWF Tracy Combined Cycle 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 and errata 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: 11/19/09 Signed: Original signature in Dockets

At: Sacramento, California

RESUME

DR. OBED ODOEMELAM

EDUCATION:

1979-1981 University of California, Davis, California. Ph.D., Ecotoxicology

1976-1978 University of Wisconsin, Eau Claire, Wisconsin. M.S., Biology.

1972-1976 University of Wisconsin, Eau Claire, Wisconsin. B.S., Biology

EXPERIENCE:

1989
The Present: California Energy Commission. Staff Toxicologist.

Responsible for the technical oversight of staffs from all Divisions in the Commission as well as outside consultants or University researchers who manage or conduct multi-disciplinary research in support of Commission programs. Research is in the following program areas: Energy conservation-related indoor pollution, power plant-related outdoor pollution, power plant-related waste management, alternative fuels-related health effects, waste water treatment, and the health effects of electromagnetic fields. Serve as scientific adviser to Commissioners and Commission staff on issues related to energy conservation. Serve on statewide advisory panels on issues related to multiple chemical sensitivity, ventilation standards, electromagnetic field regulation, health risk assessment, and outdoor pollution control technology. Testify as an expert witness at Commission hearings and before the California legislature on health issues related to energy development and conservation. Review research proposals and findings for policy implications, interact with federal and state agencies and industry on the establishment of exposure limits for environmental pollutants, and prepare reports for publication.

1985-1989 California Energy Commission.

Responsible for assessing the potential impacts of criteria and noncriteria pollutants and hazardous wastes associated with the construction, operation and decommissioning of specific power plant projects. Testified before the Commission in the power plant certification process, and interacted with federal and state agencies on the establishment of environmental limits for air and water pollutants.

1983-1985 California Department of Food and Agriculture.

Environmental Health Specialist.

Evaluated pesticide registration data regarding the health and environmental effects of agricultural chemicals. Prepared reports for public information in connection with the eradication of specific agricultural pests in California.

DECLARATION OF

I, **Rick tyler** 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 Supervised the preparation the staff testimony and errata on Public Health, Hazardous Materials Management, and Worker Safety Fire Protection Sections for the GWF Tracey 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 and errata 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: 11/19/09 Signed: Original signature in Dockets

At: Sacramento, California

RICK TYLER

Associate Mechanical Engineer

CALIFORNIA ENERGY COMMISSION

EDUCATION B.S., Mechanical Engineering, California State University, Sacramento. Extra course work in Statistics, Instrumentation, Technical Writing, Management; Toxicology, Risk Assessment, Environmental Chemistry, Hazardous Materials Management, Noise Measurement, and regulations regarding control of toxic substances.

Near completion of course work necessary to obtain a certificate in hazardous materials management from University of California, Davis.

EXPERIENCE

Jan. 1998-
Present

California Energy Commission - Senior Mechanical Engineer
Energy Facility Siting and Environmental Protection Division

Responsible for review of Applications for Certification (applications for permitting) for large power plants including the review of handling practices associated with the use of hazardous and acutely hazardous materials, loss prevention, safety management practices, design of engineered equipment and safety systems associated with equipment involving hazardous materials use, evaluation of the potential for impacts associated with accidental releases and preparation and presentation of expert witness testimony and conditions of certification. Review of compliance submittals regarding conditions of certifications for hazardous materials handling, including Risk Management Plans Process Safety Management.

April 1985-
Jan. 1998

California Energy Commission - Health and Safety
Program Specialist; Energy Facility Siting and Environmental Protection Division.

Responsible for review of Public Health Risk Assessments, air quality, noise, industrial safety, and hazardous materials handling of Environmental Impact Reports on large power generating and waste to energy facilities, evaluation of health effects data related to toxic substances, development of recommendations regarding safe levels of exposure, effectiveness of measures to control criteria and non-criteria pollutants, emission factors, multimedia exposure models. Preparation of testimony providing Staff's position regarding public health, noise, industrial safety, hazardous materials handling, and air quality issues associated with proposed power plants. Advise Commissioners, Management, other Staff and the public regarding issues related to health risk assessment of hazardous materials handling.

Nov. 1977-
April 1985

California Air Resources Board - Engineer (last 4 years Associate level)

Responsible for testing to determine pollution emission levels at major industrial facilities; including planning, supervision of field personnel, report preparation and case development for litigation; evaluate, select and acceptance-test instruments prior to purchase; design of instrumentation systems and oversight of their repair and maintenance; conduct inspections of industrial facilities to determine compliance with applicable pollution control regulations; improved quality assurance measures; selected and programmed a computer system to automate data collection and reduction; developed regulatory procedures and the instrument system necessary to certify and audit independent testing companies; prepared regulatory proposals and other presentations to classes at professional symposia and directly to the Air Resources Board at public hearings. As state representative, coordinated efforts with federal, local, and industrial representatives.

PROFESSIONAL AFFILIATIONS/ LICENSES

Past President, Professional Engineers in California Government Fort Sutter Section;
Past Chairman, Legislative Committee for Professional Association of Air Quality Specialists. Have passed the Engineer in Training exam.

PUBLICATIONS, PROFESSIONAL PRESINTATIONS AND ACCOMPLISHMENTS

Authored staff reports published by the California Air Resources Board and presented papers regarding continuous emission monitoring at symposiums.

Authored a paper entitled "A Comprehensive Approach to Health Risk Assessment", presented at the New York Conference on Solid Waste Management and Materials Policy.

Authored a paper entitled "Risk Assessment A Tool For Decision Makers" at the Association of Environmental Professionals AEP Conference on Public Policy and Environmental Challenges.

Conducted a seminar at University of California, Los Angeles for the Doctoral programs in Environmental Science and Public Health on the subject of "Health Risk Assessment".

Authored a paper entitled "Uncertainty Analysis -An Essential Component of Health Risk Assessment and Risk Management" presented at the EPA/ORNL expert workshop on Risk Assessment for Municipal Waste Combustion: Deposition, Uncertainty, and Research Needs.

Presented a talk on off-site consequence analysis for extremely hazardous materials releases. Presented at the workshop for administering agencies conducted by the City of Los Angeles Fire Department.

Evaluated, provided analysis and testimony regarding public health and hazardous materials management issues associated with the permitting of more than 20 major power plants throughout California.

Developed Departmental policy, prepared policy documents, regulations, staff instruction, and other guidance documents and reference materials for use in evaluation of public health and hazardous materials management aspects of proposed power plants.

Project Manager on contracts totaling more than $500,000.

RES.RT

DECLARATION OF
Rachel Cancienne, EIT

I, Rachel Cancienne, declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Office of the Energy Facilities Siting Division as a Soil & Water Resources Specialist.

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

3. I helped prepare the staff testimony and errata on Soil & Water Resources for the GWF Tracy Combined Cycle Power Plant 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: November 18, 2009 Signed: Original signature in Dockets

At: Sacramento, California

Rachel M. Cancienne, MS

Hydrologist

Ms. Cancienne is a hydraulic and environmental engineer with experience in river dynamics and streambank stability. She received her Master of Science degree in Biosystems Engineering with an emphasis in Natural Resources from Oklahoma State University, where she was a student of Dr. Garey Fox. She conducted laboratory research on simulated streambanks and used numerical modeling through USDA-ARS National Sedimentation Laboratory software to study streambank stability. Since joining PWA's Fluvial Team, she has focused on hydraulic modeling and soil and water analyses for the California Energy Commission.

Education

M.S. 2008 — Biosystems and Agricultural Engineering
Emphasis in Environment and Natural Resources
Oklahoma State University, Stillwater, OK

B.S. 2006 — Biosystems and Agricultural Engineering
Oklahoma State University, Stillwater, OK

Certifications

Engineer in Training (EIT), OK License: EI 13655

Honors/Awards

Tau Beta Pi Engineering Honor Society, 2006—2008
Alpha Epsilon, Biosystems Engineering Honor Society, 2005—2008
National Society of Collegiate Scholars, 2003—2008
Phi Eta Sigma Freshman Honor Society, 2002—2003
Boy Scouts of America Venturing Leadership Award, 2002

Selected Project Experience

GWF Tracy; Tracy, CA 2008 – Present. Ms. Cancienne provided environmental review of a proposed combined-cycle power plant in the City of Tracy for the California Energy Commission. The environmental review focused on the impacts to soil and water use and included writing a Staff Assessment. Ms. Cancienne specifically reviewed the project's proposed stormwater related facilities, BMPs, and water use to evaluate potential soil and water impacts. Ms. Cancienne provided extensive written input for the Soil and Water Section of the Preliminary Staff Assessment.

Almond 2 Power Plant, Turlock Irrigation District, Turlock, CA 2009 - Present. Ms. Cancienne provided environmental review for a proposed power plant project by the Turlock Irrigation District for the California Energy Commission. The environmental review focused on the impacts to soil and water use, submittal and review of data requests, and included writing a Staff Assessment. Ms. Cancienne specifically reviewed the project's proposed stormwater related facilities, BMPs, and water use to evaluate potential soil and water impacts. Ms. Cancienne provided extensive written input for the Data Requests and Soil and Water Section of the Preliminary Staff Assessment.

DWR-San Joaquin Non-Urban Levees, San Joaquin Valley, CA, 2008 – present. Hydrologist. Ms. Cancienne reviewed and digitized historic topographic maps and aerial photos using ArcGIS 9.2. Developed mapping products which included geologic and soils data, as well as a written report, to aid client's knowledge of potential levee instability locations.

DWR Geomorphic Study, Urban Non-Project, Stockton, 2008 – Present. Hydrologist. Ms. Cancienne reviewed and digitized historic topographic maps and aerial photos using ArcGIS 9.2. Developed mapping products which included geologic and soils data, as well as a written report, to aid client's knowledge of potential levee instability locations.

Whidbey Island NAS Mitigation and Stormwater Planning, Whidbey Island, WA, 2008. Hydrologist. PWA is developing a Stormwater Management Plan for a

proposed airfield expansion at the Whidbey Island Naval Air Station at Whidbey Island in Puget Sound, Washington. The project involves hydromodification modeling to assess the potential impact to receiving waters as a result of potential runoff impacts due to an increase in impervious area. The Stormwater Management Plan also involves field data collection of flows and channel bathymetry, hydrologic and hydraulic modeling, and development of alternatives for mitigating potential hydromodification, including Best Management Practices (BMPs). Ms. Cancienne performed HEC-RAS analysis for re-designed channel through mitigation site.

Relevant Experience

Graduate Research Assistant, Oklahoma State University, Stillwater, OK. 2007 Under advisor, Dr. Garey A. Fox, Ms. Cancienne directed and performed experimental analyses involving streambank stability; simulated stability of streambanks using the USDA-ARS Bank Stability and Toe Erosion (BSTEM) model; and reviewed and wrote detailed reports and manuscripts regarding research procedures and findings. Graduate Thesis: *Influence of Seepage Undercutting on the Root Reinforcement of Streambanks*

Graduate Teaching Assistant, Oklahoma State University, Stillwater, OK. 2007 Under advisor, Dr. Glenn Brown, Ms. Cancienne led a discussion section of 25 students for ENSC 3233: Fluid Mechanics.

NSF-REU Life Science/Engineering Program Intern, Texas A&M University, College Station, TX. 2006 Gained undergraduate research experience in the development of dissolved oxygen sensors for fluctuating aquatic environments.

Drilling-Completion Operations Intern, Cimarex Energy Co., Tulsa, OK. 2005 Compiled and assessed patterns associated with drilling processes and expenditures from expired drilling reports.

Publications

Cancienne, R., G.A. Fox, and A. Simon. 2008. Influence of seepage undercutting on the root reinforcement of streambanks. *Earth Surface Processes and Landforms* (In Press).

Cancienne, R., G.A. Fox, and G.V. Wilson. 2008. Vegetated Soil Block Experiments Investigating Three-Dimensional Seepage Erosion Phenomena. Proceedings of the American Society of Agricultural and Biological Engineers Annual Conference, June 29-July 2, 2008.

DECLARATION OF

I, Scott Debauche 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 a Project Manager.

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

3. I helped prepare the staff testimony and errata on **(Transportation and Traffic)** for the GWF Tracy Power Plant 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 and errata 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: 11/18/09 Signed: Original signature in Dockets

At: Sacramento, California

SCOTT DEBAUCHE

Environmental Planner

ACADEMIC BACKGROUND

B.S., Urban & Regional Planning, University of Minnesota, 1994

PROFESSIONAL EXPERIENCE

Mr. Debauche is an environmental planner with 14 years of experience preparing a variety of federal and State of California environmental, planning, and analytical documents for large-scale infrastructure and development projects. Mr. Debauche brings the experience of specializing in the integration and completion of NEPA and CEQA documentation joint documentation. Mr. Debauche specializes in evaluating Transportation/Traffic, Noise, Socioeconomics and Environmental Justice, Air Quality, Alternatives analysis, and public and community involvement programs.

Aspen Environmental Group — 2001 to present

- **TANC Transmission Project (TTP) EIR/EIS, several Northern California Counties.** Mr. Debauche is currently serving as the Technical Specialist in charge of preparation of the EIR/EIS Transportation/Traffic and Socioeconomics CEQA/NEPA analysis. The Transmission Agency of Northern California (TANC) and Western Area Power Administration (Western), an agency of the U.S. Department of Energy (DOE), are the CEQA lead agency and NEPA lead agency, respectively. The TTP generally would consist of new and upgraded 500 kilovolt (kV) and 230 kV transmission lines, substations, and related facilities generally extending from northeastern California near Ravendale in Lassen County to the California Central Valley through Sacramento and Contra Costa Counties and westward into the San Francisco Bay Area.
- **Alta Wind Project EIR, Kern County, CA.** Mr. Debauche is the Technical Specialist for Transportation/Traffic, Noise, and Air Quality for this EIR. The applicant, Alta Windpower Development, LLC, proposes to develop the Alta-Oak Creek Mojave Project (proposed project or project) for the commercial production of up to 800 Megawatts (MW) of electricity from wind turbines. The proposed project would result in construction of up to 350 wind turbine generators, their ancillary facilities and supporting infrastructure located on three distinct land areas comprising a total of approximately 10,750 acres located approximately 3 miles west of State Route (SR) 14 (Antelope Valley Freeway) and 3 miles south of SR-58 in the Willow Springs area of eastern Kern County.
- **Littlerock Reservoir Sediment Removal Project EIS/EIR, Palmdale, CA.** Mr. Debauche is the Technical Specialist for Transportation/Traffic, Noise, and Socioeconomics for this joint EIS/EIR evaluating the impacts of sediment removal alternatives for the Littlerock Reservoir and Dam on USFS Angeles National Forest (NEPA Lead Agency) lands in Los Angeles County. The project involves impacts to the arroyo toad, extensive coordination with USFWS for a Section 7 consultation, incorporation of new Forest Service Plan updates and requirements into the analysis, preparation of the Forest Service required BE/BA, and analysis of compliance with federal conformity requirements. Aspen is currently working on the Administrative Draft EIR/EIS and assisting the PWD with portions of their Proposition 50 grant application to the DWR.

- **Baldwin Hills Oil Field Community Standards District EIR Review and Ordinance Preparation, Culver City, CA.** Mr. Debauche served as the Technical Specialist for the City of Culver City reviewing the Los Angeles County Baldwin Hills Oils Field Community Standards District EIR Noise analysis evaluating the impacts of expanding the existing Baldwin Hills oil field. Once completed, Mr. Debauche then prepared the Noise section of the newly enacted City of Culver City Community Standards District overlay zone restricting noise generation by the Baldwin Hills Oil Field on the residents of Culver City.
- **Long Beach LNG Import Project, Long Beach, CA.** Under contract to the City of Long Beach, Aspen was tasked to review the Draft EIS/EIR for the proposed construction and operation of this onshore Liquified Natural Gas facility to be located at the Port of Long Beach. Mr. Debauche reviewed the document for technical adequacy and assisted the City in preparing written comments for the following sections of the EIS/EIR: Transportation/Traffic and Noise.
- **Sunset Substation and Transmission and Distribution Project CEQA Documentation, Banning, CA.** Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for this EIR. The City of Banning proposes to construct the Sunset Substation and supporting 33-kilovolt (kV) transmission line that would interconnect with the City's existing distribution system. The purpose of this new substation and transmission is to relieve the existing overloads that are occurring within the City's electric system and to accommodate projected growth in the City.

California Public Utilities Commission (CPUC). Under Aspen's environmental services contract with the CPUC, Mr. Debauche has prepared environmental analysis sections of environmental reports analyzing large-scale infrastructure projects. His project experience with the CPUC includes the following:

- **Tehachapi Renewable Transmission Project (TRTP) EIR/EIS, Kern, Los Angeles, and San Bernardino Counties, CA.** For this EIR/EIS prepared by USFS, Angeles National Forest and CPUC, Mr. Debauche is currently serving as the Technical Specialist for Noise and Alternatives evaluation for SCE's proposal to construct, use, and maintain a series of new and upgraded high-voltage electric transmission lines and substations to deliver electricity generated from new wind energy projects in eastern Kern County. Approximately 46 miles of the project would be located in a 200- to 400-foot right-of-way on National Forest System land (managed by the Angeles National Forest) and approximately three miles would require expanded right-of-way within the Angeles National Forest. The proposed transmission system upgrades of TRTP are separated into eight distinct segments: Segments 4 through 11. Segments 1 (Antelope-Pardee) and Segments 2 and 3 (Antelope Transmission Project) were evaluated in separate CEQA and NEPA documents as described below.
- **Devers–Palo Verde 500 kV Transmission Line Project EIS/EIR, southern California/western Arizona.** For this EIR/EIS prepared by U.S. Bureau of Land Management and CPUC, Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for SCE's proposed 250-mile transmission line project from the Palo Verde Nuclear power plant in Arizona to the northern Palm Springs area in California. Major issues of concern include EMF and visual impacts on property values, impacts on the area's vast recreational resources and tribal lands, and the development and evaluation of several route alternatives, including the Devers-Valley No. 2 Route Alternative, which eventually was approved by the CPUC.
- **Antelope-Pardee 500 kV Transmission Line Project EIS/EIR, Los Angeles County, CA.** For this EIR/EIS prepared by USFS, Angeles National Forest and CPUC, Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for SCE's proposed 25-mile transmission line project from the Antelope Substation in the City of Lancaster, through the ANF, and terminating at SCE's Pardee Substation in Santa Clarita. Major issues of concern included impacts to biological, recreational, and cultural resources within Forest lands, EMF and visual impacts on property values, impacts on residences in the urbanized southern regions of the route, and the development and evaluation of several route alternatives.
- **MARS EIR/EIS, Monterey, CA.** Mr. Debauche served as the technical specialist in charge of preparing the Environmental Justice analysis for this EIR/EIS, which would evaluate the effects associated with the

installation and operation of the proposed Monterey Accelerated Research System (MARS) Cabled Observatory Project (Project) proposed by Monterey Bay Aquarium Research Institute (MBARI)[NEPA Lead Agency]. The goal of the Project was to install and operate, in State and Federal waters, an advanced cabled observatory in Monterey Bay that would provide a continuous monitoring presence in the Monterey Bay National Marine Sanctuary (MBNMS) as well as serve as the test bed for a state-of-the-art regional ocean observatory, currently one component of the National Science Foundation (NSF) Ocean Observatories Initiative (OOI). The Project would provide real-time communication and continuous power to suites of scientific instruments enabling monitoring of biologically sensitive benthic sites and allowing scientific experiments to be performed. The environmental justice analysis evaluated the potential for any disproportionate project impacts to both land-based populations and fisheries workers. The CEQA Lead Agency was CSLC.

- **El Casco System Project EIR, Riverside, CA.** Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for this EIR prepared for the CPUC to evaluate SCE's application for a Permit to Construct (PTC) the El Casco System Project. The Proposed Project would be located in a rapidly growing area of northern Riverside County, which includes the Cities of Beaumont, Banning, and Calimesa. A 115 kV subtransmission line begins at Banning Substation and extends westward toward the proposed El Casco Substation site within the existing Banning to Maraschino 115 kV subtransmission line and Maraschino–El Casco 115 kV subtransmission line ROWs. Major issues of concern include impacts to existing and residential land uses, which have led to the development of a partial underground alternative and a route alternative different than the project route proposed by SCE (the Applicant). The 1,200-page Draft EIR was released for a 45-day public review and comment on December 12, 2007, and evaluates project alternatives at the same level of detail as the Proposed Project analysis.
- **Antelope Transmission Project, Segments 2 & 3 EIR, Los Angeles and Kern Counties, CA.** For this EIR being prepared by the CPUC, Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation. The proposed Project includes both Segment 2 and Segment 3 of the Antelope Transmission Project, and involves construction of new transmission line infrastructure from the Tehachapi Wind Resource Area in southern Kern County, California, to SCE's existing Vincent Substation in Los Angeles County, California. The Tehachapi Wind Resource Area is one of the State's greatest potential sources for the generation of wind energy. A variety of wind energy projects are currently in development for this region. Major issues of concern include EMF and visual impacts on property values, impacts on residences and agricultural resources, and the development and evaluation of several substation and route alternatives.
- **Diablo Canyon Power Plant (DCPP) Steam Generator Replacement Project EIR, San Luis Obispo County, CA.** Mr. Debauche served as the Technical Specialist for Socioeconomics and Alternatives evaluation of this EIR. The EIR addressed impacts associated with the replacement of the eight original steam generators (OSGs) at DCPP Units 1 and 2 due to degradation from stress and corrosion cracking, and other maintenance difficulties. The Proposed Project would be located at the DCPP facility, which occupies 760 acres within PG&E's 12,000-acre owner-controlled land on the California coast in central San Luis Obispo County.
- **SDG&E Miguel Mission Substation Draft EIR.** The major part of the Proposed Project would include the installation of a new, bundled 230 kV circuit between Miguel and Mission Substations, which would be located entirely within SDG&E's existing 35-mile ROW. Mr. Debauche prepared social science analysis for the Initial Study, as well as the Draft EIR Project Description and several key environmental sections.
- **PG&E's Proposed Divestiture of Hydroelectric Assets Project EIR.** Mr. Debauche prepared several key sections of the Draft EIR, including Socioeconomics and Hazardous Materials analysis.
- **Viejo System Project IS/MND, Orange County, CA.** Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for the project's CEQA documentation, including and Initial Study, prepared on behalf of the CPUC to evaluate Southern California Edison's (SCE) Application for a Permit to Construct the Viejo System Project, which was in SCE's forecasted demand of electricity and goal of providing reliable electric service in southern Orange County. The Viejo System Project would serve Lake Forest, Mission Viejo, and the surrounding areas. Components of the project included, construction of the new 220/66/12 kilovolt (kV) Viejo Substation, installation of a new 66 kV subtransmission line within an existing SCE right-of-way, replacement of 19

double-circuit tubular steel poles with 13 H-frames structures, and minor modification to other transmission lines. Major issues of concern include visual impacts of transmission towers, EMF effects, and project impacts on property values.

- **Looking Glass Networks Fiber Optic Cable Project IS/MND, northern and southern California.** As part of Aspen's ongoing contract with the CPUC for review of Telecommunications projects, this document encompasses and evaluation of project impacts and network upgrades in the San Francisco Bay Area and the Los Angeles Basin Area. Prepared the socioeconomic analysis for this comprehensive CEQA document reviewing the potential impacts of hundreds of miles of newly proposed fiber optic lines throughout northern and southern California, including Los Angeles and Orange Counties.

California Energy Commission (CEC), Technical Assistance in Application for Certification Review. In response to California's power shortage, Aspen is assisting the California Energy Commission in evaluating the environmental and engineering aspects of new power plant applications throughout the State. As part of this effort, Mr. Debauche works as a technical specialist for Transportation/Traffic, Socioeconomics and Environmental Justice, and Alternatives analyses for the following power plant projects:

- **Carlsbad Energy Center Project, Carlsbad, CA.** Technical Specialist for both the Transportation/Traffic and Alternatives Staff Assessment for Carlsbad Energy Center, LLC's Application for Certification (AFC) to build the Carlsbad Energy Center Project (CECP), which will consist of a 558 MW gross combined-cycle generating facility configured using two units with one natural-gas-fired combustion turbine and one steam turbine per or unit. Issues of concern include major incompatibilities with local LORS, and cumulative impacts from widening of I-5.
- **GWF Tracy Combined Cycle Power Plant, San Joaquin County, CA.** Technical Specialist for the Transportation/Traffic Staff Assessment for GWF's proposal to modify the existing TPP, a nominal 169-megawatt (MW) simple-cycle power plant, by converting the facility into a combined-cycle power plant with a nominal 145 MW, net, of additional generating capacity.
- **GWF Henrietta Peaker Project, Kings County, CA.** Technical Specialist for the Transportation/Traffic Staff Assessment for GWF's proposal to modify the existing Henrietta Power Plant. New once-through steam generators (OTSGs) will be installed to allow the plant to be operated in its current simple-cycle configuration with no steam generation but with the selective catalytic reduction (SCR) and oxidation catalyst in operation, or to operate as a combined-cycle power plant generating an additional 25 MW of power with new proposed emission limits.
- **CPV Vaca Station Power Plant, Solano County, CA.** Technical Specialist for the Transportation/Traffic Staff Assessment for CPV Vacaville, LLC (CPVV) filed an Application for Certification (08-AFC-11) seeking authority to construct and operate the CPV Vaca Station (CPVV) project, a natural gas-fired, combined-cycle electrical generating facility rated at a nominal generating capacity of 660 megawatts (MW). The CPVV is proposed for a 24-acre site located at the intersection of Lewis and Fry roads in a rural area within the city limits of Vacaville, Solano County.
- **Kings River Conservation District Community Peaker Power Plant, Fresno County, CA.** Technical Specialist for the Transportation/Traffic Staff Assessment for the Kings Rivers Conservation District, who filed a Small Power Plant Exemption for the King River Conservation District Peaking Power Plant. The proposed 97-megawatt natural gas-fired plant will be located south of the City of Fresno and near the community of Malaga in Fresno County.
- **Lodi Energy Center, Lodi, CA.** Technical Specialist for the Socioeconomics Staff Assessment for a combined-cycle nominal 225-megawatt (MW) power generating facility.
- **Ivanpah Solar Electric Generating System Project, San Bernardino County, CA.** Technical Specialist for the Socioeconomics Staff Assessment/BLM EIS for a 400-megawatt solar thermal electric power generating system. The project's technology would include heliostat mirror fields focusing solar energy on power tower receivers producing steam for running turbine generators. Related facilities would include administrative buildings, transmission lines, a substation, gas lines, water lines, steam lines, and well water pumps. The proposed project would be developed entirely in the Mojave Desert region of San Bernardino County, California.

- **Canyon Power Plant, Anaheim, CA.** Technical Specialist for the Socioeconomics Staff Assessments for a nominal 200 megawatt (MW) simple-cycle plant, using four natural gas-fired combustion turbines and associated infrastructure proposed by Southern California Public Power Authority (SCPPA). This project is a peaking power plant project located within the City of Anaheim, California.
- **Valero Cogeneration Project, Benicia, CA.** Technical Specialist for the Socioeconomics Staff Assessments for a proposed cogeneration facility at the Valero Refinery in Benicia. Issues addressed included impacts on public services and other project-related population impacts such as school impact fees.
- **Rio Linda/Elverta Power Project, Sacramento, CA.** Technical Specialist for the Socioeconomics Staff Assessments for a 560-megawatt natural gas power plant in the northern Sacramento County. Issues of importance included environmental justice and impacts on property values.
- **Magnolia Power Project, Burbank, CA.** Technical Specialist for the Socioeconomics Staff Assessments for this nominal 250-megawatt natural gas combined-cycle fired electrical generating facility to be located at the site of the existing City of Burbank power plant. Environmental justice issues and potential impacts on local economy and employment were evaluated.
- **Avenal Energy Project, Kings County, CA.** Technical Specialist for the Socioeconomics Staff Assessments for a 600-megawatt combined cycle electrical generating facility, and associated linear facilities.
- **Inland Empire Energy Center, Riverside County, CA.** Technical Specialist for the Socioeconomics Staff Assessments for a 670-megawatt natural gas-fired, combined-cycle electric generating facility and associated linear facilities including, a new 18-inch, 4.7-mile pipeline for the disposal of non-reclaimable wastewater, and a new 20-inch natural gas pipeline. The project would be located on approximately 46-acres near Romoland, within Riverside County.
- **Coastal Plant Study.** Technical Specialist for the Socioeconomics Staff Assessments for a possible modernization, re-tooling, or expansion of California's 25 coastal power plants including the Encina Power Plant and the San Onofre Nuclear Power Plant.

Los Angeles Department of Water and Power (LADWP). Responsible for conducting the analyses of the technical and social science issue areas for a variety of EISs and EAs as part of two environmental services contracts. Delivery orders have included:

- **River Supply Conduit (RSC) Upper Reach Project EIR, Los Angeles and Burbank, CA.** Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for the CEQA document for this project. The RSC is a major transmission pipeline in the LADWP water distribution system. The existing RSC pipeline's purpose is to transport large amounts of water from the Los Angeles Reservoir Complex and local ground water wells to reservoirs and distribution facilities located in the central areas within of the City of Los Angeles. The LADWP proposed a new larger RSC pipeline to replace and realign the Upper and Lower Reaches of the existing RSC pipeline, which would involve the construction of approximately 69,600 linear feet (about 13.2 miles) of 42-, 48-, 60-, 66-, 72-, 84-, and 96-inch diameter welded steel underground pipeline.
- **Mulholland Pumping Station and Lower Hollywood Reservoir Outlet Chlorination Station Project IS/MND, Los Angeles, CA.** Under Aspen's on-going environmental services contract with the City of Los Angeles Department of Water and Power (LADWP), Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for preparation of CEQA documentation for this project. LADWP proposed to replace the existing historic pumping/chlorination station building as well as the existing lavatory and unoccupied Water Quality Laboratory buildings with a new single structure pumping/chlorination station within the LADWP's Hollywood Reservoir Complex located in the Hollywood Hills section of the City Los Angeles. These improvements were required due to the age and deterioration of the facility and the potential risk of seismic damage to existing structures. An Initial Study was prepared in support of a City of Los Angeles General Exemption.
- **Taylor Yard Water Recycling Project (TYWRP) IS/MND, Los Angeles and Glendale, CA.** Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for preparation of CEQA documentation for this project. LADWP proposed to construct the TYWRP in order to provide recycled water produced by the Los Angeles–Glendale Water Reclamation Plant (LAGWRP) to the Taylor Yard. An important part of the City of Los Angeles' expanding emphasis on water conservation is the concept that water is a resource that can be used more

than once. Because all uses of water do not require the same quality of supply, the City has been developing programs to use recycled water for suitable landscaping and industrial uses. The project is located in the southernmost part of the City of Glendale and northeastern part of the City of Los Angeles. The IS/MND was adopted in the Summer of 2007.

- **DC Electrode Project IS/MND, Los Angeles, CA.** Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for preparation of CEQA documentation for this project. LADWP proposed to construct a new electrode distribution line from West Los Angeles to the Pacific Ocean stopping point in Malibu, CA up the Pacific Coast Highway.
- **District Cooling Plant Project, Los Angeles IS/MND, CA.** Mr. Debauche served as the Technical Specialist for Transportation/Traffic, Noise, Socioeconomics, and Alternatives evaluation for preparation of CEQA documentation for this project. LADWP proposed to construct a District Cooling Plant and Distribution System (proposed project) in order to provide a centralized system for producing chilled water for use by area users, which are generally large commercial, governmental, industrial and institutional buildings who generate their own chilled water utilizing individual chiller plants for space cooling and air-conditioning.

U.S. Army Corps of Engineers, Los Angeles District. Responsible for conducting the analyses of the social science issue areas for a variety of EISs and EAs as part of two environmental services contracts. Delivery orders have included:

- **Northeast Phoenix Drainage Area Alternatives Analysis Report, Phoenix and Scottsdale, AZ.** Worked with preparation of an alternatives analysis report that evaluated the potential environmental impacts associated with channel and detention basin alternatives to control flooding problems resulting from fast rate of development in the northeast Phoenix area.
- **Murrieta Creek Flood Control and Environmental Restoration Project**. Mr. Debauche served as a technical writer of an Environmental Assessment and Mitigation Monitoring plan for Phase 1 of a flood control and restoration project in Riverside County.

California Department of Water Resources. Responsible for conducting the environmental analyses for CEQA compliance as part of two environmental services contracts. Delivery orders have included:

- **Piru Creek Stabilization and Restoration Project.** The California Department of Water Resources (CDWR) proposes to repair erosion damage at a series of three locations downstream of Pyramid Dam and seismically retrofit the Pyramid Dam access bridge that crosses Piru Creek. Mr Debauche served as technical writer of the Initial Study for this project.

Los Angeles Unified School District (LAUSD), Los Angeles County, CA. Deputy Program manager and Technical writer for several CEQA documents (EIRs and IS/MNDs) being prepared as part of Aspen's ongoing services contract with the LAUSD to help approve school projects that would meet existing overcrowded conditions in the greater Los Angeles area. Projects have included:

- **New School Construction Program EIR.** Serves as a technical writer for social science issues, including socioeconomics, and population and housing for this Program EIR being prepared for the LAUSD. The LAUSD 2020 Program would provide student seats throughout the LAUSD via a combination of the addition of portable classrooms to existing campuses, modernization and reconfiguration of existing campuses, and the construction of new schools. Mr. Debauche prepared the Noise, Socioeconomic, and Alternative Evaluation of this EIR.
- **East Valley Middle School No. 2 EIR.** Served as a key technical writer for this middle school project proposed to be located at the previous Van Nuys Drive-In site. The EIR focused on impacts associated with air quality, hazards and hazardous materials, noise, land use and planning, and traffic and transportation. Major issues of concern included traffic and noise generated by school operation activities. The EIR included LAUSD design standards and measures employed to minimize environmental impacts.
- **Mt. Washington Elementary School Multi-Purpose Room Addition Project IS/MND.** Served as Deputy Program Manager for this project proposed the development of a multi-purpose room facility, including a library, auditorium, and theater, to the existing Mt. Washington Elementary School campus located in Los Angeles. The surrounding residential community had concerns regarding the proposed

project's impacts on aesthetics, traffic, air quality, and noise. Of particular concern, was impacts generated due to the after-hours use of the multi-purpose room facility by civic and community groups.

- **Canoga Park New Elementary School IS/MND.** Served as technical writer for this elementary school project proposed to be developed on a parcel of land owned by the non-profit organization, New Economics For Women (NEW). This "turn-key" project consisted of a Charter Elementary School to be developed by NEW and sold to the LAUSD for operation. It was later decided that NEW would lease the school back and run it as a charter school. Issues of concern included, pedestrian safety, traffic, air quality, noise, and land use.
- **Hughes Magnet Span School IS/MND.** Served as a technical writer for socioeconomics, hydrology, public services and utilities, and recreational impacts for the proposed re-opening of the existing Hughes Middle School as a Magnet Span School serving up to 1,620 District 6th though 12th grade students. The re-opening of the Hughes Middle School would require the relocation of the existing uses of the campus. The existing Enadia Way Elementary School and Platt Ranch Elementary School would be re-opened for the relocation of these uses.
- **Wonderland Elementary School Portable Classroom Additions IS/MND.** Served as the technical writer of an IS/MND for a proposed addition to the Wonderland Avenue Elementary School, located in the City of Los Angeles. Ms. Walker is responsible for overall coordination and scheduling of the project's environmental review, communications with the LAUSD, senior technical review of all documents produced, presentation during the project's public scoping meetings and hearings, and assurance of public noticing. Served as technical writer of the IS/MND.
- **Pio Pico Elementary School Playground Expansion IS/MND**. Completed a Notice of Preparation, Initial Study, and Administrative Draft EIR for the expansion of a playground at the existing Pio Pico School in the LAUSD. The playground was proposed on five residential properties. One of the residences is a potentially significant historical resource because of its association with an African-American woman journalist, Fay M. Jackson. This project was cancelled by the LAUSD after completion of the administrative draft report. Served as technical writer of the IS/MND.
- **Fairfax Senior High School Portable Classroom Addition IS/MND**. Served as technical writer of the IS/MND for the addition of portable classrooms at the school. Major issue areas covered were noise, hydrology, and geotechnical analysis.
- **Polytechnic Senior High School Portable Classroom Addition IS/MND**. Served as technical writer of the IS/MND for the addition of portable classrooms at the school. Major issue areas covered were noise, hydrology, and geotechnical analysis.
- **Washington Senior High School Portable Classroom Addition IS/MND**. Served as technical writer of the IS/MND for the addition of portable classrooms at the school. Major issue areas covered were noise, hydrology, and geotechnical analysis.

EIP Associates 1998 to 2001

MTA Mid Cities/Westside Transit Corridor Study EIS/EIR. Was a key writer of the EIS/EIR for this 3-phase (including prepared the Major Investment Study (MIS), the Environmental Impact Statement (EIS), and an evaluation of the urban design implications of transit interventions on selected routes) study intended to address current and long range traffic congestion in the central and westside areas of the Los Angeles Basin. Three east/west corridors and a range of transit alternatives ranging including Rapid Bus, light rail, and heavy rail are being evaluated. In addition to preparing several issue area chapters of this comprehensive joint EIS/EIR, Mr. Debauche assisted with the Environmental Justice Analysis (per Executive Order 12898), the Section 4(f) Parklands discussion, and the land use and socioeconomics sections of the EIS/EIR.

Wes Thompson Ranch Development Project EIR. Served as project writer for this hillside residential development in the City of Santa Clarita. Issues of concern included seismic and air quality impacts associated with the excavation of 2 million cubic yards of soil, the project's non-compliance with the City's hillside ordinance for innovative design, and traffic generated by project-related population growth in the area. Four different site configuration alternatives were developed as part of the EIR analysis. Other

issues of concern included sensitive biological resources, the potential for hydrological impacts due to disturbance of the hillside, and cultural resources. As the technical writer for socioeconomics, noise, hazardous materials, air quality, and public services, Mr. Debauche conducted analysis and prepared these environmental sections as well as the project description, alternatives screening and development, traffic assistance, and cumulative scenario for:

City of Santa Monica Environmental Assessments. Was key writer of several environmental assessment documents for housing, commercial, institutional, and mixed-use developments in compliance with CEQA. As the technical writer for socioeconomics, noise, hazardous materials, air quality, and public services, Mr. Debauche conducted analysis and prepared these environmental sections as well as the project description, alternatives screening and development, traffic assistance, and cumulative scenario for:

- **Seaview Court Condominiums IS/MND.** This comprehensive Initial Study/Mitigated Negative Declaration included six technical reports including traffic, cultural resources, parking survey, shade and shadow analysis, and a geotechnical assessment to evaluate the level of severity of this development in the waterfront area of Santa Monica. Major issues of concern were; parking and project-generated traffic on adjacent narrow residential streets; visual obstruction and shading impacts of the proposed structure; liquefaction and seismic impacts to adjacent properties as result of the projsect's excavation for a subterranean parking garage; and the potential impacts of the project to impact the integrity of a historic district and the historic Seaview Walkway to the beachfront.
- **Four-Story Hotel IS/MND.** A comprehensive Initial Study/Mitigated Negative Declaration was prepared for this four-story hotel adjacent to St. John's Hospital in Santa Monica. Major issues of concern included project-generated traffic on surrounding multi-family residential uses and emergency access to the hospital.
- **Santa Monica College Parking Structure B Replacement EIR.** This focused EIR addressed issues related to traffic and neighborhood land use impacts associated with the addition of a 3-story parking structure in the center of the SMC campus. Major issues of concern included the potential for project-generated traffic to cause congestion at the school's main entrance on Pico Boulevard, and the potential for overflow traffic to impact the Sunset Community of single-family homes adjacent to the school.
- **North Main St. Mixed-Use Development Project EIR**. This EIR included evaluation of impacts resulting from the development of a mixed-use development in Santa Monica's "Commercial Corridor" on Main Street, with ground-floor residences and boutique commercial uses. Major issues of concern included traffic and parking impacts to Main Street and surrounding residential land uses, shade and shadow impacts, and neighborhood impacts.

Specific Plans and Redevelopment Projects. As the technical writer for socioeconomics, noise, hazardous materials, air quality, and public services, Mr. Debauche conducted analysis and prepared these environmental sections as well as the project description, alternatives screening and development, traffic assistance, and cumulative scenario for:

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

downtown Beverly Hills. Issues of concern evaluated by Mr. Debauche included traffic, land use, and impacts to on-site historic structures.

- **UCLA Campus Housing Expansion.** This EIR evaluated the development and expansion of campus housing within the UCLA campus. Issues of concern evaluated by Mr. Debauche included hazardous materials and population/housing.

CH2M Hill - Minneapolis, MN **1995 to 1998**

- **Minneapolis/St. Paul International Airport Expansion EIS:** Mr. Debauche was a key writer of the EIS for this $4 million technical and environmental study, including the preparation of an Environmental Impact Statement (EIS), and an evaluation of the urban design implications of a proposed $800 million expansion of the existing MSP International airport, including transit and terminal modifications and the inclusion of a new perpendicular runaway. The studies included alternatives to the project and the long-term effects on the cities of Minneapolis and St. Paul. In addition to preparing several issue area chapters of this comprehensive EIS, Mr. Debauche assisted with the Environmental Justice Analysis (per Executive Order 12898), the Section 4(f) Parklands discussion, and the socioeconomics sections of the EIS. In addition, Mr. Debauche assisted with preparation of a technical report on airport noise effects on nearby housing and mitigation programs for the impacts of the proposed runway.
- **Minneapolis/St. Paul Wastewater Treatment Facility Expansion EIS:** Was a key writer of the EIS for expansion of the existing wastewater treatment facility serving the twin cities area. The studies included alternatives to the project and the long-term effects on the cities of Minneapolis and St. Paul. Mr. Debauche prepared several issue area chapters of this comprehensive EIS, including the Environmental Justice Analysis (per Executive Order 12898), and the socioeconomics sections of the EIS.

PROFESSIONAL ASSOCIATIONS

- American Planning Association (APA), Chapter Member

DECLARATION OF
Vince C. Geronimo, PE

I, Vince Geronimo, declare as follows:

1. I am presently employed by the California Energy Commission in the Environmental Office of the Energy Facilities Siting Division as a Soil & Water Resources Specialist.

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

3. I helped prepare the staff testimony and errata on Soil & Water Resources, for the GWF Tracy Combined Cycle Power Plant 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: November 18, 2009 Signed: Original signature in Dockets

At: Sacramento, California

Vince C. Geronimo, PE, CFM

Associate Principal

Vince Geronimo is a registered California Professional Civil Engineer with 14 years of experience in the field of civil, environmental, and water resources engineering. Mr. Geronimo specializes in the planning, design, and implementation of flood mitigation projects that integrate ecosystem restoration. As part of PWA's fluvial team Mr. Geronimo provides technical QA/QC review of hydrologic and hydraulic analyses. Mr. Geronimo manages PWA's IDIQ contract with FEMA Region IX. For the California Energy Commission, Mr. Geronimo has conducted CEQA analysis, recommended mitigation measures, and contributed to Staff Assessments on four siting cases. Mr. Geronimo has conducted various environmental compliance reviews for more than 20 energy facilities. His education and project experience includes wastewater treatment facility design, water transmission and storage analysis, economic analysis, sediment and erosion control planning, stream and wetland restoration, and design of hydraulic structures. As a Certified Floodplain Manager and an engineer, Mr. Geronimo is knowledgeable of methods, to employ, that help reduce flood losses and protect and enhance the natural resources and functions of floodplains.

Education	M.S., 2004	Civil Engineering, Water Resources Emphasis, University of Colorado - Denver, Colorado
	B.S., 1995	Civil Engineering, Environmental Emphasis, Southern Illinois University - Edwardsville, Illinois
Professional Registration	2001 2006	Professional Engineer, State of Colorado, 35224 Civil Engineer, State of California, 70165
Certifications	2002	Certified Floodplain Manager, Certificate No. US-02-00543, Association of State Floodplain Managers
Memberships		American Society of Civil Engineers Environmental & Water Resources Institute of ASCE-Sacramento (Treasurer) Association of State Floodplain Managers Floodplain Managers Association

Selected Project Experience

Beacon Solar Energy Plant; Kern County, CA 2005 -Present. PWA Project Manager provided environmental review for the California Energy Commission of a proposed solar energy plant in the Mojave desert. The environmental review focused on the stormwater, BMPs, and flood related impacts. Mr. Geronimo conducted hydrologic, hydraulic, and geomorphic analyses to assess the project plan to divert an existing dry wash through a constructed earthen diversion channel. Mr. Geronimo provided environmental review of the Storm Water Pollution Prevention Plan and the Drainage Erosion and Sediment Control Plan (DESCP). Mr. Geronimo authored the stormwater and flood related portions of the Preliminary Staff Assessment which included an engineer's evaluation of the project in a separate appendix.

GWF Tracy; Tracy, CA 2008 – Present. PWA Project Manager provided environmental review of a proposed combined-cycle power plant in the City of Tracy for the California Energy Commission. The environmental review focused on the impacts to soil and water use. Mr. Geronimo specifically reviewed the project's proposed stormwater related facilities, BMPs, the septic facility, and water use to evaluate potential soil and water impacts. Mr. Geronimo conducted an assessment of the availability of recycled water and provided oversight for the Soil and Water Section of the Preliminary Staff Assessment.

Compliance Reviews; Throughout California. 2006 – Present. PWA Project Manager responsible for compliance reviews for the California Energy Commission. Mr. Geronimo is a technical reviewer for Soil & Water and Waste compliance submittals. Mr. Geronimo reviews Storm Pollution Prevention Plans (SWPPPs), Drainage Erosion and Sediment Control Plans (DESCP), water use, monthly/annual compliance reports, and flood related compliance submittals to determine if the Project remains in compliance with the Conditions of Certification specified in the Energy Commission's licensing decision.

Selected Project Experience
(Continued)

San Francisco Electric Reliability Plant; San Francisco, CA 2005 -Present. PWA Assistant Project Manager provided environmental review of a proposed power plant in San Francisco for the California Energy Commission. The environmental review was focused on the impacts to soil and water use. Mr. Geronimo specifically reviewed potential flooding, water reclamation and re-use, tertiary wastewater treatment facility, water quality impacts related soil erosion, and the Storm Water Pollution Prevention Plan and storm water best management practices.

Inland Empire Energy Center; Romoland, CA 2005. PWA Assistant Project Manager provided environmental review of a proposed power plant in Romoland for the California Energy Commission. The environmental review was focused on the impacts to soil and water use. Specific analyses included assessing potential flooding, water quality impacts related soil erosion, and the Storm Water Pollution Prevention Plan and storm water BMPs.

South Bay Salt Ponds Restoration Project, For the California State Coastal Conservancy, 2004 – 2008. PWA Task Manager for the riverine analysis of the Guadalupe River/Alviso Slough system. The analysis supported the EIR/S documentation for the South Bay Salt Pond Restoration Project NEPA/CEQA environmental review processes. The analysis combined a steady-state HEC-RAS model and an unsteady UNET model to test a combination of flooding scenarios related to the project alternatives that reduce offline storage and improve conveyance. The South Bay project is approximately 15,000 acres and will restore and enhance wetland habitats, improve public access and reduce flood hazards.

Independent QA/QC Review; FEMA Region IX, 2005 - 2008, PWA Project Manager responsible for developing the QA/QC procedures and checklist to provide independent review of three FEMA Flood Insurance Restudies within Monterey County, Siskiyou County, and Placer County. The independent technical review was conducted in accordance with the established policy principles and procedures in the *Guidelines and Specifications for Flood Hazard Mapping Partners*. The technical review included: Topographic Data, Hydrologic Data, Hydraulic Data, Floodplain Mapping (Revised Areas), as well as secondary checks of the data submitted as part of the TSDN for each re-study.

Flood Insurance Re-Studies; **FEMA Region IX**, 2007 - Present, PWA Project Manager responsible for managing a Marin County (Ross Valley) and a Santa Cruz County (Watsonville) Flood Insurance Re-study of several creeks in the study areas. The re-studies include: field survey, topographic mapping, hydrologic and hydraulic modeling, flood hazard assessment, and floodplain mapping.

Newhall Ranch Development, Valencia, CA, 2006-2008. For Newhall Land and Farming Company. Led the hydraulic assessment and conceptual civil design for improving five tributaries of the Santa Clara River that will be subject to hydromodification. Mr. Geronimo developed a suite of channel stabilization and bank stabilization application methods and design criteria to achieve stable channel morphology in response to reductions in sediment delivery and increases in flow.

Contra Costa Clean Water Program Hydrograph Modification Management Plan – Project Engineer, 2006-2007; for Contra Costa Clean Water program. Mr. Geronimo was part of the consultant team to assist the Contra Costa Clean Water Program in developing a Hydrograph Modification Management Plan (HMP). The HMP will include standards and performance criteria for hydrograph modification management by new development projects. Mr. Geronimo was involved in developing engineering concepts and practical civil design for Integrated Maintenance Practices (IMP).

Lake Sonoma Water Diversion; Sonoma County, CA 2005, PWA Project Manager to study feasibility of diverting water from Lake Sonoma, to the Russian River. The purpose of the analysis was for an EIR scoping process. Mr. Geronimo performed a reconnaissance level, engineering evaluation and provided an approximate cost to deliver 26,000 acre-feet of water from Lake Sonoma to the Russian River. The summary cost estimate included: facilities cost, approximate electrical demand engineering costs as percentage of facilities cost.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION
FOR THE *GWF TRACY COMBINED CYCLE POWER PLANT PROJECT*

Docket No. 08-AFC-7
PROOF OF SERVICE

(Revised 2/25/2009)

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DECLARATION OF SERVICE

I, April Albright, declare that on November 23, 2009, I served and filed copies of the attached Staff's Errata to the FSA, dated November 23, 2009. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[http://www.energy.ca.gov/sitingcases/tracyexpansion/index.html]**. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(C*heck all that Apply*)

For service to all other parties:

___✓___ sent electronically to all email addresses on the Proof of Service list;

___✓___ by personal delivery or by depositing in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses **NOT** marked "email preferred."

AND

For filing with the Energy Commission:

___✓___ **sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);**

OR

_____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-7
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

Original signed by:
April Albright