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March 28, 2008

File No. 039610-0001

DOCKET
07-AFC-1
DATE MAR 28 2008
RECD. MAR 28 2008

VIA FEDEX

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 07-AFC-1
1516 Ninth Street, MS-4
Sacramento, California 95814-5512

Re: Victorville 2 Hybrid Power Project: Docket No. 07-AFC-1

Dear Sir/Madam:

Pursuant to California Code of Regulations, title 20, sections 1209, 1209.5, and 1210, enclosed herewith for filing please find Applicant's Prehearing Conference Statement regarding the above-referenced project.

Please note that the enclosed submittal was filed today via electronic mail to your attention and to all parties on the CEC's current electronic proof of service list.

Very truly yours,

Paul E. Kihm
Senior Paralegal

Enclosure

cc: CEC 07-AFC-1 Proof of Service List (w/encl. via e-mail)
Michael J. Carroll, Esq. (w/encl.)

Michael J. Carroll
LATHAM & WATKINS LLP
650 Town Center Drive, Suite 2000
Costa Mesa, CA 92626
(714) 755-8105

STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 07-AFC-1
	)	
Application for Certification, for the VICTORVILLE 2 HYBRID POWER PROJECT by Inland Energy, Inc.	)	APPLICANT'S PREHEARING CONFERENCE STATEMENT

Pursuant to 20 C.C.R. § 1718.5 and the Committee Order dated March 13, 2008, Applicant hereby submits its Prehearing Conference Statement.

STATUS SUMMARY BY TOPIC AREA

Applicant is prepared to proceed to evidentiary hearing on all topic areas. The following Table 1 sets forth a summary (by Final Staff Assessment (FSA) topic area) of:

- Whether or not there are disputes or outstanding issues between the parties concerning the topic area;
- Identities of witnesses sponsored by Applicant, the testimony to be offered by each witness, and the time estimated to present direct testimony; and
- Topic areas on which Applicant desires to cross-examine witnesses, and the time estimated for cross-examination.

Table 1 includes time estimates that are based on the assumption that many topic areas can be submitted into the evidentiary record on declaration. In the event that other parties request live testimony on any of these topic areas, Applicant reserves the right to modify its Prehearing Conference Statement to include additional witnesses and additional time for direct and cross-examination.

Following Table 1 is a topic-by-topic discussion of the precise nature of the disputes and outstanding issues.

Appendix A to this Prehearing Conference Statement contains the qualifications of the witnesses sponsored by Applicant. Appendix B to this Prehearing Conference Statement identifies the

tentative list of exhibits and declarations that Applicant intends to offer into evidence and the technical topics to which they apply.

Table 1

Topic Area	Disputes Between Parties	Witnesses	Testimony Summary	Direct Testimony Estimate	Cross-Examination Estimate
Project Description	No.	Tom Barnett, Inland Energy, Inc.	Declaration.	None.	None.
Air Quality	Yes.	Sara Head, ENSR.	Witness will sponsor exhibits related to air quality by declaration, and will be prepared at the evidentiary hearing to address any remaining disputes and outstanding issues, including requested modifications to proposed conditions of certification. See more detailed discussion below.	30 minutes.	30 minutes.
Biological Resources	Yes.	Thomas Egan, AMEC; Alice Karl, Alice E. Karl & Associates; Tom Barnett, Inland Energy, Inc. (timing issues related to conditions).	Witnesses will sponsor exhibits related to biological resources, and will address disputes and outstanding issues, including requested modifications to proposed conditions of certification. See more detailed discussion below.	60 minutes.	60 minutes.
Cultural Resources	Yes.	James Allan, WSA; Tom Barnett, Inland Energy, Inc. (timing issues related to conditions).	Witnesses will sponsor exhibits related to cultural resources by declaration, and will be prepared at the evidentiary hearing to address any remaining disputes and outstanding issues, including requested changes to proposed conditions of certification. See more detailed discussion below.	30 minutes.	30 minutes.
Hazardous	Yes.	Russell	Witness will sponsor	30 minutes.	30 minutes

Materials		Kingsley, ENSR.	exhibits related to hazardous materials by declaration, and will be prepared at the evidentiary hearing to address any remaining disputes and outstanding issues, including requested changes to proposed conditions of certification. See more detailed discussion below.		
Land Use	No.	Elizabeth Copley, ENSR.	Declaration.	None.	None.
Noise and Vibration	Yes.	Ramon Nugent, Acentech.	Witness will sponsor exhibits related to noise and vibration by declaration, and will be prepared at the evidentiary hearing to address any remaining disputes and outstanding issues, including requested changes to proposed conditions of certification. See more detailed discussion below.	30 minutes.	30 minutes.
Public Health	No.	Greg Wolffe, ENSR.	Declaration.	None.	None.
Socioeconomic Resources	No.	Elizabeth Copley, ENSR.	Declaration.	None.	None.
Soil and Water Resources	No.	Sally Bilodeau, ENSR.	Declaration.	None.	None.
Traffic and Transportation - Vehicular	No.	John Wilson, ENSR	Declaration.	None.	None
Traffic and Transportation - Aviation	Yes.	Tom Barnett, Inland Energy, Inc.	Witness will sponsor exhibits related to aviation transportation by declaration, and will be prepared at the evidentiary hearing to address any remaining disputes and outstanding issues, including requested	30 minutes.	30 minutes.

			changes to proposed conditions of certification. See more detailed discussion below.		
Transmission Line Safety and Nuisance	No.	David Larsen, Navigant Consulting	Declaration.	None.	None.
Visual Resources	No.	Merlyn Paulson, ENSR.	Declaration.	None.	None.
Waste Management	No.	Arrie Bachrach, ENSR.	Declaration.	None.	None.
Worker Safety	No.	Arrie Bachrach, ENSR.	Declaration.	None.	None.
Facility Design	Yes.	Tom Barnett, Inland Energy, Inc.	Witness will sponsor exhibits related to Facility Design by declaration and will be prepared at the evidentiary hearing to address Applicant's requested modifications to Condition GEN-1, if necessary. See more detailed discussion below.	10 minutes.	5 minutes.
Geology	No.	Sally Bilodeau, ENSR.	Declaration.	None.	None.
Paleontology	No.	Cara Corsetti, SWCA Environmental Consultants.	Declaration.	None.	None.
Efficiency	No.	Tom Barnett, Inland Energy, Inc.	Declaration.	None.	None.
Reliability	No.	Tom Barnett, Inland Energy, Inc.	Declaration.	None.	None.
Transmission System Engineering	No.	David Larsen, Navigant Consulting.	Declaration.	None.	None.
Alternatives	No.	Arrie Bachrach, ENSR.	Declaration.	None.	None.

DETAILED DISCUSSION BY TOPIC AREA

The following discussion provides additional details regarding disputes or outstanding issues identified in Table 1.

Air Quality

The following comments on Air Quality were made by Applicant on the Preliminary Staff Assessment (PSA). The FSA does not reflect any response to these comments.

1. FSA Pgs. 4.1-11 – 4.1-12, state that…"the city proposed that it will limit the construction activities to the period one hour after sunrise to ***one hour*** before sunset…." This statement is incorrect. The City proposed to limit construction activities to the period one hour after sunrise to 30 minutes (or ***one half hour***) before sunset. The proposed condition unnecessarily restricts construction hours. Applicant requests that Condition AQ-SC6 be modified to read as follows:

> *Construction activities should be limited to the hours between one hour after sunrise and one half hour before sunset.*

2. FSA Pg. 4.1-14, AQ Table 6 provides erroneous background values for PM10 and PM2.5, and hence the Total Impacts are overstated. The California Air Resources Board (ARB) web site gives a State Maximum 3-Year (2004 – 2006) Annual Average of 30 $\mu g/m^3$. Although lower than those provided in AQ Table 6, these PM10 background values are still over the California Ambient Air Quality Standards (CAAQS,) and hence the small project impacts to PM10 require mitigation. In the case of PM2.5, there is not a 24-hour CAAQS for this pollutant, but there is a 24-hour National Ambient Air Quality Standard (NAAQS). The NAAQS is only exceeded when the 98th percentile value over three years is greater than the standard. Therefore, for this standard, the 98th percentile value should be used as the background value. The ARB website provides a 98th percentile value of 20 $\mu g/m^3$ for 2004 and 19 $\mu g/m^3$ in 2006 (the web site indicates there were insufficient PM2.5 data in 2005 to provide the value). The State Annual Averages in these two years are 10.8 $\mu g/m^3$ and 10.3 $\mu g/m3$, respectively. When the maximum project impacts of 5.9 $\mu g/m^3$ and 0.2 $\mu g/m^3$ are added to the maximum of these background values, the Total Impacts are 25.9 $\mu g/m3$, 24-hour average and 11.0 $\mu g/m^3$ annual average, which are below the 35 $\mu g/m^3$ 24-hour NAAQS and 12 $\mu g/m^3$ annual CAAQS for PM2.5. When the correct background values are used, the Project does not cause or contribute to an exceedance of the PM2.5 standards, and hence the Project does not have a significant impact on PM2.5 and should not be required to offset PM2.5 emissions.

Also, the Applicant hopes to begin construction of the project as early as June 2008. Therefore, the requirement in the verification to identify candidate roads one year prior to start of construction cannot be complied with.

Applicant requests that Condition AQ-SC9 be modified to read as follows:

> *The project owner shall pave, with asphalt concrete that meets current county road standards, unpaved local roads to provide*

emission reductions of 132.7 tons per year of PM10 prior to start of construction of the project.

Verification: At least 60 days prior to start of construction, the project owner shall submit to the CPM and the District, for approval, a list and pictures of candidate roads to be paved, their actual average daily traffic count including classification of vehicles (ADT), and daily vehicle miles traveled (DVMT), their actual road dust silt content, and calculations showing the appropriate amount of emission reductions due to paving of each road segment. All paving of roads shall be completed at least 15 days prior to start of construction of the project.

3. Applicant requests clarification that the monitoring, recordkeeping and reporting requirements set forth in Condition AQ-SC11 apply only until the California Global Warming Solutions Act of 2006 (AB32) is implemented.

4. The verification for Condition AQT-3 requires that copies of the federal Prevention of Significant Deterioration (PSD) and Acid Rain permits be provided to the Compliance Project Manager (CPM) at least 90 days prior to the start of construction. Applicant cannot begin construction until it holds a valid PSD permit, but it should not be required to delay construction until 90 days following issuance of the permit. Second, the Mojave Desert Air Quality Management District (MDAQMD) will issue the Acid Rain permit, not the U.S. Environmental Protection Agency (EPA), and will do so as part of the Title V permit, which may not be issued until one year after the Project starts operation. Applicant requests that the verification for Condition AQT-3 be modified to read as follows:

At least 10 days prior to start of construction of the project, the project owner shall provide to the District, the ARB and the CEC CPM copies of the federal PSA permit. The project owner shall obtain a federal acid rain permit from the District as part of the Title V Operating Permit.

5. The timing requirements for notification of testing and submittal of test results in Condition AQT-13 and the verification are inconsistent with each other. Applicant requests that the verification be modified to read as follows:

The O.O. shall conduct all required compliance/certification tests in accordance with a District approved test plan. Thirty (30) days prior to the compliance/certification tests, the operator shall provide a written test plan for District review and approval. Written notice of the compliance/certification test shall be provided to the District ten (10) days prior to the test so that an observer can be present. A written report with the results of such

compliance/certification tests shall be submitted to the District within sixty (60) days after testing.

Verification: The project owner shall notify the District and the CPM within ten (10) working days before the execution of the sources tests. Source test results shall be submitted to the District and to the CPM within sixty (60) days of the date of the test.

6. The verification for AQT-9, AQT-11, AQT-16, AQEG-5, AQEG-7, AQFP-5 and AQFP-7 requires that "approved for construction" drawings be provided at least 120 days prior to construction or installation of the specific unit (turbine stacks, emergency generator, and fire-water pump). Applicant hopes to commence construction as early as June 2008, which may make compliance with this requirement impossible. Applicant requests that the submission deadline in the verification for each of the identified conditions be shortened from 120 days to 60 days.

7. Condition AQ-SC3-J requires sweeping "at least twice daily." The need for sweeping will vary depending on the nature of the activities on a particular day during construction and other factors. If there are days when there is minimal vehicular activity, for example, sweeping twice a day might be unnecessary. Applicant requests that the language be modified as follows: "at least twice daily (or less during periods of precipitation *or on other days with the concurrence of the CPM)*" (modified language in italics).

8. In Conditoin AQ-SC4 ,Step 3, Applicant requests that the language be modified from "fails to result in effective mitigation" to "fails to eliminate visible dust plume at any location within 200 feet or more off the project construction fenceline."

Biological Resources

9. Applicant disagrees with staff's proposal to require compensation land at a ratio of 3:1, as reflected in Condition BIO-11, for impacts to Mohave ground squirrel (MGS), desert tortoise, burrowing owl and creosote rings. Applicant believes that the appropriate compensation ratios for MGS and desert tortoise are 1:1 and 1.5:1, respectively. Applicant believes that potential impacts to burrowing owls would also be addressed by acquiring compensation land at the ratios specified above. Applicant requests that Condition BIO-11 be modified to require 657.75 acres of compensation land, which reflects a ratio of 1.5:1 which is adequate to compensate for all identified animal and plant species.

10. Applicant does not believe that the fact that acquired compensation lands will also mitigate potential impacts to creosote rings justifies a compensation ratio higher than those specified above. Acquisition of compensation lands that support MGS, desert tortoise and burrowing owl at a ratio of 1.5:1, and compliance with local requirements applicable to creosote rings located along linears within the City of Hesperia and the County of San Bernardino will fully mitigate any potential impacts to creosote rings. Since impacts to creosote rings are being fully mitigated by Condition BIO-11, it is not necessary to inventory the creosote rings affected

by the project, and Applicant requests that all references to creosote rings be deleted from Condition BIO-16.

11. Applicant disagrees with staff's conclusion that potential compensation land located northwest of Edwards AFB is not suitable as mitigation for MGS, notwithstanding that it is located within the range of the species and contains habitat suitable for MGS. Applicant recommends that this land continue to be included as one of several options that will be explored with California Department of Fish & Game (CDFG), U.S. Fish & Wildlife Service (USFWS) and California Energy Commission (CEC) in determining suitable translocation and compensation lands for the project. Applicant objects to the admission into evidence of the declaration of Dr. Philip Leitner without an opportunity to cross-examine the witness.

12. Condition BIO-18 provides the CDFG with an open-ended ability to determine at some point in the future that the project would require a streambed alteration agreement but for the CEC's jurisdiction over the project. Such a determination would trigger the requirement to implement over seven pages of requirements that were not made available until issuance of the FSA, are not specifically tailored to the project, provide virtually unfettered discretion to CDFG with respect to implementation, and may be inconsistent with other conditions of certification contained in the FSA. Applicant has submitted information substantiating that the project does not impact jurisdictional waters of the State regulated under California Fish and Game Code Section 1600 et seq. Applicant requests that the CEC make a specific finding with respect to this issue and delete Condition BIO-18 in its entirety.

13. Applicant has the following concerns regarding timing requirements in the proposed Conditions of Certification:

a. Condition BIO-1 requires that information regarding selection of the designated biologist must be submitted to CPM 90 days prior to start of site mobilization, and selection must be approved prior to site mobilization. Applicant may begin construction as early as June 2008, and therefore requests that the 90-day deadline be shortened to 60 days.

b. Condition BIO-6 requires that two copies of the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) be provided to the CPM at least 60 days prior to site mobilization, and that the BRMIMP include all of the requirements contained in BIO-6, 8, 9, 10, 12, 13, 15, 16, 17 and 18. CPM will determine BRMIMP acceptability, in consultation with other agencies, within 45 days of receipt of BRMIMP. A revised BRMIMP, including all permits issued after draft BRMIMP submitted, must be submitted to CPM 10 days prior to site mobilization. Applicant requests that the BRMIMP be submitted to the CPM at least 30 days prior to site mobilization to allow Applicant sufficient time to complete the requirements set forth in BIO-6, 8, 9, 10, 12, 13, 15, 16, 17 and 18.

c. Condition BIO-12 requires Applicant to submit the translocation plan with details on the final location selection to CDFG, USFWS and the CPM for review and approval, and states that the project owner cannot commence ground-disturbing

activities until the CPM, in consultation with CDFG and USFWS, provide written approval of the translocation plan. The condition further requires that the final translocation plan be incorporated into the BRMIMP. Because the BRMIMP must be submitted to the CPM 60 days prior to ground disturbance (30 days under Applicant's request), but translocation of desert tortoises is not anticipated to occur prior to September/October of 2008, Applicant requests that the final location selection for translocation, as approved by USFWS, CDFG and the CPM, be required to be submitted to the CPM 30 days prior to commencement of translocation of desert tortoises.

Cultural Resources

The following comment was made by Applicant on the PSA, but the FSA does not reflect any response:

14. Proposed Conditions require archaeological monitoring throughout construction, and a Native American monitor where prehistoric resources may be present. The Applicant agrees that monitoring (including Native American monitoring) is appropriate during construction along the Mojave River where important prehistoric sites have been previously documented and at the plant site, given its proximity to the river. However, Applicant feels that requiring monitoring on an ongoing basis along the portions of the linear routes that are not near the river (i.e., the potable water pipeline route and all of transmission line Segments 2 and 3) would be excessive. The entire area in question has been surveyed, and all the surficial sites have been identified, recorded, and assessed as not significant. These sites all consist of trash dumps and scatters. The potential for buried prehistoric sites or additional historic sites along these portions of the transmission route is considered very low, given the results of recent Project surveys and what is known about the typical locations of previously recorded buried prehistoric sites.

Even without monitoring, Project construction personnel will receive cultural resources awareness training as part of the WEAP. Thus, in the unlikely event that buried cultural deposits are identified, the construction crews will be able to identify the deposit, stop work, and notify Project management so that appropriate measures can be taken to evaluate the identified materials:

Applicant requests that Condition CUL-6 be modified as follows (suggested changes in bold):

> (Paragraph 1, Sentence 1): *The project owner shall ensure that the CRS, alternate CRS, or CRMs monitor full time at the project site and at portions of the linear facilities* ***that are near the Mojave River (which include all of transmission line Segment 1 and the reclaimed water supply and sanitary wastewater pipelines).***
>
> (Paragraph2, Sentence 1): *Full-time monitoring for this project shall be the archaeological monitoring of all earth-moving activities on the construction site or along the linear facilities*

*routes **near the Mojave River for** as long as the activities are ongoing.*

15. Applicant has the following concerns related to timing issues associated with the proposed Conditions of Certification:

a. Verification paragraph #1 for Condition CUL-1 requires that the resume of the cultural resources specialist be submitted 180 days prior to ground disturbance (modified from 45 days in the PSA). Applicant requests that the requirement be 45 days prior to ground disturbance.

b. Verification paragraph #3 for Condition CUL-1 requires that the names of the cultural resource monitors be submitted 90 days prior to ground disturbance (modified from 20 days in the PSA). Applicant requests that the requirement be 20 days prior to ground disturbance.

c. Verification paragraph #5 of Condition CUL-1 requires that the project owner confirm to the CPM in writing that the cultural resources specialist is available for onsite work and prepared to implement the cultural resources conditions 120 days prior to ground disturbance (modified from 10 days in the PSA). Applicant requests that the requirement be 10 days prior to ground disturbance.

d. Verification paragraph #1 of Condition CUL-2 requires that the project owner provide certain materials to the cultural resource specialist and CPM 135 days prior to ground disturbance (modified from 40 days in the PSA). Applicant requests that the requirement be 40 days prior to ground disturbance.

e. Verification paragraph #1 of Condition CUL-3 requires the Applicant to provide the Cultural Resources Mitigation Implementation and Monitoring Plan (CRMIMP) to the CPM 90 days prior to ground disturbance (modified from 30 days in the PSA). Applicant requests that the requirement be 30 days prior to ground disturbance.

Hazardous Materials

The following comments on Hazardous Materials were made by Applicant on the PSA. The FSA does not reflect any response to these comments.

16. Condition HAZ-1 restricts hazardous materials usage during commissioning and operations to the list provided in Appendix B of the Hazardous Materials section of the FSA, which is the same chemical list as the Large Quantity hazardous material list submitted in the AFC. As written the condition appears to prohibit the use of small quantity materials (janitorial and office supplies, paints, degreasers, herbicides, pesticides, air conditioning fluids (chlorofluorocarbons and ozone depleting compounds), gasoline, hydraulic fluid, propane, calibration gases, welding gases, welding rods, ion exchange resins, SCR catalyst bed, etc.). Applicant requests that thresholds for use and reporting during facility operations be applied that coincide with the thresholds required for the Hazardous Materials Business Plan that will be required for the facility. Applicant request that Condition HAZ-1 be modified to read as follows:

During commissioning and operations, the project owner shall not use any hazardous materials not listed in Appendix B below, or in greater quantities than those identified by chemical name in Appendix B, unless approved in advance by the Compliance Project Manager. This requirement applies to any hazardous material stored or used at the facility in quantities equal to or exceeding 55 gallons for liquids, 500 pounds for solids and 200 cubic feet for gases and any amount of extremely hazardous material.

17. Appendix B of the Hazardous Materials section of the FSA identifies the brand name of the heat transfer fluid. It is possible that the project owner will utilize a different brand over the life of the project. Applicant requests that the reference be modified to: "Therminol® VP-1 or equivalent."

18. Condition HAZ-9 refers only to an Operations Site Security Plan. Page 4.4-16 of the FSA section states that the project owner is not required to conduct a site-specific Vulnerability Assessment. However, the verification for HAZ-9 requires submission of both an Operations Site Security Plan and a Vulnerability Assessment. Applicant requests that the reference to a Vulnerability Assessment be deleted from the verification.

Noise

The following comments on Noise were made by Applicant on the PSA. The FSA does not reflect any response to these comments.

19. The FSA inappropriately uses the L90 metric to average the four quietest consecutive nighttime hours, yielding an ambient background level of 27.2 dBA L90 which is then added to the power plant noise level of 39 dBA Leq to obtain a cumulative noise level of 39 dBA; this is a change from ambient of +12 dBA which is deemed a significant impact in terms of the stated significance criteria. However, this is mixing apples and oranges (Leq and L90). The appropriate approach is to use the Leq data from the ambient noise survey together with the Project noise levels (also Leq). The ambient background of the four quietest nighttime hours (Leq) is 34 dBA (not 27 dBA); combining this Leq value with Project noise levels would yield a combined noise level of 40 dBA. This would represent a change of only 6 dBA from ambient, which may or may not be a significant impact under the stated CEC significance scheme. Considering that two of the factors that are used by the CEC to determine impact significance when the change from ambient is >5 dBA but < 10dBA are the number of people affected (only one residence for the project) and the level of public concern of controversy (no comments received from local residents, either in writing or at any of the workshops in Victorville), the project's 6 dBA change from ambient noise levels should be considered an insignificant impact. Condition Noise-4 should be modified to set a maximum allowable with-Project noise level of 44 dBA (ambient of 34 dBA plus 10 dBA, the applicable CEC threshold of impact significance).

20. Condition Noise-4 also should be revised to limit plant operation noise levels only during nighttime hours, since the CEC staff analysis of significant impacts used the nighttime hours as

the ambient base line. If the 39 dBA noise limits currently proposed were applied to daytime operations, the plant could not operate at all, since all daytime ambient measurements at the location of concern (the single residence) currently exceed 39 dBA Leq, and most of them also exceed 44 dBA (Applicant's suggested limit using the ambient data properly). Applicant requests that the first paragraph of Condition Noise-4 be modified to read as follows:

> *The project design and implementation shall include noise mitigation measures adequate to ensure that operation of project will not cause noise levels due to plant operation to exceed an average of 44 dBA Leq measured at monitoring location ML2, the residence located one mile west of the project site during the four quietest nighttime hours. No new pure tone components may be caused by the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints.*

21. Condition Noise-8 specifies that if the one resident has a legitimate noise complaint, then the Project is obligated to provide noise attenuating upgrades to the residence. The Condition should be modified to state that if such upgrades are installed, the Project noise limit then would be modified to equal the City of Victorville noise ordinance limits in residential land uses of 60 dBA at night and 70 dBA during the day.

Traffic and Transportation

22. Condition TRANS-4 requires a plan to monitor parabolic arrays so they track the sun as accurately as possible to minimize glare, including measures to ensure that arrays out of service or not working well are positioned appropriately to minimize glare. The parabolic arrays are specifically designed to track the sun with a high degree of precision in order to maximize plant output (and revenues). The development and submission of such a plan is unnecessary. Applicant requests that Condition TRANS-4 be deleted in its entirety.

Facility Design

23. Applicant requests that Condition GEN-1 be consistent with the version of GEN-1 contained in the Presiding Member's Proposed Decision recently published for the Colusa Generating Station, as follows:

> *"**GEN-1** The project owner shall design, construct and inspect the project in accordance with the 2007 California Building Standards Code (CBSC) (also known as Title 24, California Code of Regulations), which encompasses the California Building Code (CBC), California Building Standards Administrative Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Code for Building Conservation, California Reference Standards Code, and all other applicable engineering*

LORS in effect at the time initial design plans are submitted to the CBO for review and approval, except that the CBSC applicable to the General Electric supplied equipment shall be the 2001 CBSC. (The CBSC in effect is that edition that has been adopted by the California Building Standards Commission and published at least 180 days previously.) The project owner shall insure that all the provisions of the above applicable codes be enforced during any construction, addition, alteration, moving, demolition, repair, or maintenance of the completed facility [2007 CBC, Section 101.3, Scope]. All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the TRANSMISSION SYSTEM ENGINEERING section of this document. In the event that the initial engineering designs are submitted to the CBO when a successor to the 2007 CBSC is in effect, the 2007 CBSC provisions identified herein shall be replaced with the applicable successor provisions. Where, in any specific case, different sections of the code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern. The project owner shall insure that all contracts with contractors, subcontractors and suppliers shall clearly specify that all work performed and materials supplied on this project comply with the codes listed above.

***Verification**: Within 30 days after receipt of the Certificate of Occupancy, the project owner shall submit to the Compliance Project Manager (CPM) a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation and inspection requirements of the applicable LORS and the Energy Commission's Decision have been met in the area of facility design. The project owner shall provide the CPM a copy of the Certificate of Occupancy within 30 days of receipt from the CBO [2007 CBC, Section 109 – Certificate of Occupancy]. Once the Certificate of Occupancy has been issued, the project owner shall inform the CPM at least 30 days prior to any construction, addition, alteration, moving, demolition, repair, or maintenance to be performed on any portion(s) of the completed facility which may require CBO approval for the purpose of complying with the above stated codes. The CPM will then determine the necessity of CBO approval on the work to be performed."*

SCHEDULE

Applicant believes that the evidentiary hearing can be completed on April 3, 2008, as proposed. Applicant requests that the Committee schedule one round of briefs, if necessary, to be filed

within two weeks of the availability of the transcript of the evidentiary hearing. Applicant is not aware of any other matter that would affect the proposed schedule.

DATED: March 28, 2008

Respectfully submitted,

Michael J. Carroll
LATHAM & WATKINS LLP

APPENDIX A
WITNESS QUALIFICATIONS

Elizabeth C. Copley, AICP

Urban Planner

Years Experience: 31

Technical Specialties

- Environmental Impact Assessment and Permitting
- Land Use Planning and Law
- Socioeconomics and Environmental Justice

Education

- MUP (Urban Planning) University of Michigan, Ann Arbor
- BA (Urban Studies) University of Michigan, Ann Arbor

Professional Registrations and Affiliations

- American Institute of Certified Planners/AICP, Nation-wide
- National Association of Environmental Professionals, NEPA Working Group
- California Association of Environmental Professionals

Representative Project Experience

A. Summary

Elizabeth Copley is a Program Manager at ENSR, and manages ENSR's Northern California Environmental Assessment Group. In addition to managing an extensive program of projects for the US Army Corps of Engineers (USACE) and the Navy, she has directed and performed NEPA and CEQA technical studies for power plants, pipelines and transmission lines, offshore LNG terminals, refineries, waste management facilities/sites, and commercial, mixed use and residential projects. Her work has involved projects located in California, the Northeastern states, the Southeast and Gulf Coast, and the Great Lakes region, projects which often require numerous layers of environmental review and close coordination with federal, state and local agencies and the public.

B. Government Programs

Since 1991, Ms. Copley has managed NEPA projects for the US Army Corps of Engineers, including the following:

- ***USACE, Mobile District, NEPA Disposal and Reuse EAs/EISs, BRAC Sites, Nationwide Contract (Ongoing)***. Project Manager of the Environmental Impact Statement for the disposal and reuse of Fort McPherson, GA and the Environmental Assessment under preparation for the disposal and reuse of the Michigan ANG-Selfridge (Sebille Manor), MI. In addition, Ms Copley is serving in a technical leadership role, as Resource Area Leader for Land Use/Visual Resources, providing consistency between analyses prepared for multiple sites nationwide. To date, the sites include Fort Monroe and Fort Eustis GA; Fort McPherson and Fort Gillem, GA; Michigan ANG-Selfridge (Sebille Manor), MI; Kansas Army Ammunition Plant, KS; Lone Star/Red River Army Ammunition Plants, TX; Riverbank Army

D. Oil and Gas Facilities

Chevron USA, CSLC Lease Extension Application/CEQA, El Segundo Marine Terminal, El Segundo, CA. Prepared the socioeconomic analyses, particularly the analysis of the effect of the project on Environmental Justice Populations.

Tesoro Refining and Marketing Company, Golden Eagle Refinery Coker Modification Project, Martinez and Pittsburg, Contra Costa County, CA. Provided senior CEQA oversight of the environmental analyses prepared in support of a Contra Costa County land use permit application for the proposed coker modification at the Golden Eagle Refinery in Martinez, CA. Includes analyses of onsite impacts as well as effects at the Marine Terminal in Pittsburg, CA.

Shell Martinez Refinery, CEQA and Land Use Permitting for Crude Storage Tank Replacement, Martinez, CA. Provided CEQA strategy and oversight of the comprehensive environmental analyses prepared in support of a Contra Costa County land use permit application for the proposed crude storage tank replacement project at the Martinez, CA refinery.

Valero Benicia Refinery, CEQA and Land Use Permitting for Amendments to the Valero Improvement Project, Benicia, CA. Assisted in developing CEQA/permitting strategy and provided senior CEQA oversight of the Land Use Permit application and supporting environmental documentation provided to the City of Benicia for amendments to the Valero Improvement Project, a project to allow flexibility in the processing of various types of crude.

Ocean Energy, Deepwater Port/LNG Facility, Offshore, Los Angeles and Orange Counties, CA. Provided CEQA/NEPA analyses associated with the technical sections on Land Use, Socioeconomics and Environmental Justice Populations for a proposed deepwater LNG facility with pipeline landfall/transmission near LAX, Los Angeles, CA. Also included an extensive analysis of alternative routes and sites.

F. Expert Review and Testimony

Cutler & Stanfield, NEPA Expert Review of Proposed Airport Expansions, Rhode Island, Texas, Arizona. Senior Land Use and Socioeconomic Resources Expert for the review of NEPA EIS documents prepared for the proposed expansions of T.F. Green Airport in Warwick, Rhode Island, Dallas/Fort Worth Airport in TX and Phoenix Sky Harbor, Arizona. ENSR responsibilities were the assessment of the adequacy of the proponent's evaluation of environmental impacts, in response to legal proceedings initiated by affected communities.

West Lynn Cogeneration Partners, Expert Testimony, Massachusetts. Provided expert testimony on coastal/tidelands concerns in administrative proceedings of the Massachusetts Energy Facilities Siting Council (EFSC). The testimony regarded the need to site a 120 MW gas-fired combined-cycle cogeneration project in a State-designated port area, consistent with Massachusetts coastal and tidelands policies. The facility was successful in receiving approval from the EFSC

U.S. Generating Company, Massachusetts. Provided expert review of: the prospects of global warming; the role of CO2 in contributing to global warming; the role of other emissions (e.g., CFCs, NO2, CO) in contributing to global warming; and the relative role of fossil fuel fired electricity production in contributing to global warming as documentation for testimony presented to the Massachusetts Dept. of Public Utilities. The testimony was given at a generic DPU hearing on Rulemaking 89-239, the purpose of which is to incorporate the costs of environmental externalities into long-range utility planning.

Gregory Scott Wolffe, CPP

Years Experience: **20**

Professional History

- ENSR
- Science Applications Int'l Corp
- McLaren/Hart Engineering
- USDA Forest Service

Education

- BA (Environmental Science) UC Santa Barbara
- BA (Physical Anthropology) UC Santa Barbara
- AA (Zoology) Fullerton College

Professional Registrations and Affiliations

- Certified Permitting Professional, California
- ISO 14001 Lead Auditor

Technical Specialties

- Regulatory Analysis
- Compliance Auditing
- Air Quality Permitting
- Health Risk Assessment
- Air Dispersion Modeling

Mr. Wolffe has performed has performed dozens of multi-pathway HRAs in California for the California Energy Commission (CEC) and local air quality management districts including the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD), The Mojave Desert Air Quality Management District (MDAQMD), the South Coast Air Quality Management District (SCAQMD), and the San Diego Air Pollution Control District (SDAOCD). Mr. Wolffe performed as the technical lead for the Public Health (PH) section of an AFC to the CEC for a 550-MW hybrid power plant proposed in the Victorville area. Mr. Wolffe has worked with the SJVUAPCD on recent public health requirements for two projects in Manteca and Merced, which followed district guidelines for conducting HRA's under CEQA and included an evaluation of toxic air contaminant (TAC) emissions from stationary and mobile sources. In the SCAQMD, Mr. Wolffe has performed HRA studies including one that addressed barge movements through inner and outer regions of the Port of Los Angeles, which required HARP (Hot Spots Analysis and Reporting) modeling of over 100 emission sources, 40 air toxic pollutants, and use of onsite meteorological data. He was the primary health risk assessment modeler for four major HRAs for the Navy in San Diego addressing operations at the Marine Corps Base Twentynine Palms, Naval Air Station North Island, Naval Amphibious Base Coronado, and Point Loma Naval Complex. The analyses required clustering hundreds of active emission sources, and identification of receptors. Mr. Wolffe also performed similar HRAs for Department of Energy facilities in Amarillo, Texas, and Hanford, Washington, which addressed radionuclide, air toxics, and criteria pollutant concentrations, along with wet and dry deposition, volatilization, and wind-blown particulates.

Representative Project Experience

Inland Energy, Health Risk Assessment for the Victorville Hybrid Power Station, Victorville, California. Mr. Wolffe performed as the technical lead for the Public Health (PH) section of an AFC to the CEC for a 550-MW hybrid power plant proposed in the Victorville area. The HRA assessed cancer risk and non-cancer health impacts at receptors located in the project vicinity The HRA was conducted in accordance with the Public Health requirements of the CEC Regulation (July, 2006), and in accordance with Mojave Desert Air Pollution Control District guidance for environmental project review. The HRA evaluated health risks from sources within the site boundary, and sensitive receptors up to 6 kilometers from the property boundary.

Beacon Solar LLC, Health Risk Assessment for the Beacon Solar Energy Project (BSEP), Kern County, California. Mr. Wolffe supported the Public Health (PH) section of an AFC to the CEC for a concentrated solar electric generating facility proposed on approximately 2,012 acres in Kern County, California. The BSEP is designed as a low environmental impact project that will use parabolic trough solar thermal technology to produce a nominal electrical power output of 250 MW using a steam turbine generator fed from a solar steam generator.

BP-Carson Refinery, Health Risk Assessment, Carson, CA. Mr. Wolffe conducted health risk assessment for the BP-Carson Refinery for the reporting year 2006-2007. The risk assessment evaluated over 350 emission sources and 40 individual toxic air contaminants (TAC). Risk were calculated using the HARP software developed by the California Air Resources Board (CARB) for performing health risk assessment in California, and in accordance with California OEHHA and SCAQMD guidance on residential, occupational, and sensitive exposure functions.

Constellation Energy, Multi-media Compliance Audit Power Station, Tuolumne, California. Mr. Wolffe provided air quality regulatory expertise on a corporate compliance audit of a biomass power generating facility. Compliance team consisted of three team members lead by ENSR auditing group. Areas of audit focus included Tuolumne County Air Pollution Control District rules and regulations on emissions reporting, California Accidental Releases Program (CalARP), emissions control equipment, permitting, paint and solvent usage, statewide portable equipment registration, and fugitive dust from biomass fuel storage.

Valero, Title V Air Permitting Petroleum Refinery Audit, Benicia, California. Conducted specialized auditing at the refinery of requirements under Subpart QQQ (Oily Wastewater), Subpart FF (Benzene Waste NESHAP), Subpart M (Asbestos), Subpart CC (Halogenated Organic NESHAP), and Risk Management while assisting on a corporate environmental Title V air quality compliance audit for a large refinery regulated under the Bay Area Air Quality Management District.

Valero, Multi-media Compliance Audit Fuels Refinery, Wilmington California. Mr. Wolffe provided air quality regulatory expertise on a Valero corporate compliance audit of the Wilmington Fuels Refinery. Compliance team consisted of five team members lead by corporate Valero auditing group. Areas of audit focus included South Coast Air Quality Management District (SCAQMD) rules and regulations on emissions reporting, flare minimization, RECLAIM allocation program, permitting and variance procedures, emissions control equipment, permitting, paint and solvent usage, statewide portable equipment registration, and VOC emissions control from wastewater systems.

Valero, Multi-media Compliance Auditing at Asphalt, Marine Terminal and Tankage, Wilmington, California. Assisted in corporate compliance auditing of the Wilmington Asphalt Plant, Marine Terminal, and storage tank operations. Compliance team consisted of four team members lead by corporate Valero auditing group. Areas of audit focus included South Coast Air Quality Management District (SCAQMD) rules and regulations on emissions control equipment, permitting, paint and solvent usage, ozone depleting substances, statewide portable equipment registration, and storage tank inspection requirements.

Chevron, OLD MACT Applicability Analysis, El Segundo, California. Conducted a comprehensive assessment of organic liquids distribution facilities for compliance with 40 CFR Part 63, SubPart EEEE, Organic Liquids Distribution. Assessment included review of Tier II and Tier III reporting for HAP content, materials storage and materials movement.

BP, EPCRA Compliance Audit, refineries at various states. Conducted a detailed audit of Community Right-To-Know (EPCRA 311/312) compliance at five large oil refineries located in California, Washington, Ohio, North Dakota, and Utah under EPA mandated Consent Decree. The compliance audit was conducted under attorney-client privilege requiring technical regulatory interpretations with facility personnel and corporate counsel. Audit results were used to improve Management of Change processes.

BP, SCAQMD Rule 1166 Decontamination of Soils Audit, Carson, California. Conducted a detailed audit of regulatory compliance requirements with SCAQMD Rule 1166, Decontamination of Soils, of a large refinery operating in the South Coast The audit reviewed

inventory and process data, agency submittals, operator interviews, hazardous waste manifesting, and agency notification.

United Airlines, Multi-media Corporate Compliance Audit, Maintenance Organization, San Francisco, CA. Provided air quality regulatory expertise on a corporate compliance audit of an airline maintenance shop. Compliance team consisted of four team members lead by ENSR auditing group. Areas of audit focus included Bay Area Air Quality Management District rules and regulations on cogeneration facilities, emissions reporting, California Accidental Releases Program (CalARP), emissions control equipment, permitting, paint and solvent usage, statewide portable equipment, and state air toxics control measures for chrome plating.

Southern California Edison, Regulatory Forecasting for Alternative Clean Air Technologies, Los Angeles, California. Developed regulatory forecasting for commercial gas and electric provider in Southern California, focusing on incentives for alternative clean air technologies. Close attention was paid to California State Assembly and Senate Bills, both existing and recently adopted, and their impact on current and future air quality rule and regulation requirements.

Cinergy Solutions, Compliance Auditing of a COGEN facility, San Diego CA. Conducted and managed a multimedia compliance audit focused on air quality issues of a small COGEN unit operated by Cinergy Solutions. The unit provides power to Children's Hospital in San Diego. The audit evaluated compliance with air quality emissions source testing, recordkeeping, water and wastewater, hazardous materials and hazardous waste, and environmental management systems.

Army National Guard, Multi-media Compliance Audits, Nationwide. Conducted hundreds of multi-media environmental audits in accordance with self-audit standards under the federal military Environmental Compliance and Assessment System (ECAS) program. Facilities audited were located in California, Minnesota, Ohio, New Mexico, Kansas, Nebraska, Vermont, Oklahoma, Alabama, and Arizona. The audit program implemented the use of the seventeen regulatory protocols including CAA, TSCA, CWA, SDWA, RCRA, FIFRA, NEPA, historical and cultural resources, noise abatement, asbestos abatement, radon abatement, environmental program management, and hazardous materials management. Detailed environmental audit findings are reported to state managers at daily out-briefs.

Santa Fe Pacific Railroad, Environmental Review. Assisted in the compilation of regulatory data for conducting property transaction environmental assessments involving over 300 parcels of industrial/retail and undeveloped properties located in California, Arizona, New Mexico, and Texas for the Santa Fe Pacific Railroad. The assessments included review of regulatory agency files, identifying potential environmental hazards using government site maps, agency published list reviews, and soil investigations.

Sally W. Bilodeau, P.G., C.E.G., C.H.G., CEM

Senior Program Manager

Years Experience: 31

Technical Specialties

- Integrated Site Closure
- Hazardous Waste Site Remediation
- RCRA, CERCLA Compliance
- Soil and Groundwater Assessment and Remediation

Professional History

- ENSR
- IT Corporation (including EMCON)
- Jacobs Engineering Group
- Earth Sciences Associates (including ESA Geotechnical)
- Leighton and Associates

Education

- BA (Earth Science) California State University, Fullerton
- MS (Applied Earth Science) Stanford University
- Certificate (40 Hour OSHA Training and Annual 8 Hour Refresher)

Professional Registrations and Affiliations

- Certified Environmental Manager, Nevada
- Professional Geologist, California
- Certified Engineering Geologist, California
- Certified Hydrogeologist, California
- Certified Professional Geological Scientist, N/A

Representative Project Experience

Facility Compliance CERCLA

Sempra Manufactured Gas Plant, Preliminary Endangerment Assessment, Remedial Investigation, and Removal Action Workplan, Turlock, California. Ms. Bilodeau was project manager for the preliminary endangerment assessment (PEA), Remedial Investigation (RI), and Removal Action Workplan (RAW) for a polycyclic aromatic hydrocarbon (PAH)-impacted site in Turlock, California. As Project Manager, Ms. Bilodeau was responsible for the workplan preparation, field oversight, report writing, regulatory communication and public participation. This former Manufactured Gas Plant (MGP) site is under the direction of the California Department of Toxic Substances Control. Although the site is not on the NPL it was managed administratively through the RI/FS process. The removal action is planned for late 2007.

Brown & Bryant Task Force, RI/FS, Southern California. Ms. Bilodeau was project manager and PRP group coordinator for the Brown & Bryant/Shafter pesticide site in Southern California. As Project Manager, Ms. Bilodeau was responsible for the RI/FS, public participation, stormwater management, remedy evaluation, and coordination of the PRP legal and technical groups. This former pesticide formulation facility is under an Imminent or Substantial Endangerment and Corrective Action Order from the California Department of Toxic Substances Control.

United States Environmental Protection Agency, RI/FS, Denver, Colorado. Ms. Bilodeau conducted RI/FS oversight activities for the EPA at the Broderick Wood Products Superfund Site in Denver, Colorado. This site had sinking, floating, and dissolved phase hazardous constituents in the groundwater. She prepared the supplemental Feasibility Study and assisted the EPA in the development of a Record of Decision document. She planned and conducted the public meeting.

United States Navy, Compliance, Barstow, California. Site Manager for the U.S. Navy Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract Task Orders at the Marine Corps Logistics Base. Seventeen task orders totaling $4.7 million were active during the period.

Marine Corps Logistic Base Superfund Site, RI/FS, Barstow, California. Ms. Bilodeau was Project Manager for the development of the RI/FS Work Plan, Sampling and Analysis Plan, Site Management Plan, Administrative Record, and a water quality Solid Waste Assessment Test (SWAT) at the Marine Corps Logistics Base Superfund site.

United States Environmental Protection Agency Region VIII, Compliance, Colorado. Served as Region VIII Manager for the Technical Enforcement Support (TES) contract for the EPA in 1989. Approximately 40 specific EPA work assignments valued at over $1.2 million were active under both the RCRA and CERCLA programs during this period.

RI/FS and EE/CA for U.S. Environmental Protection Agency, RI/FS, Casper, Wyoming. Ms. Bilodeau conducted RI/FS oversight for the EPA at the Brookhurst/Mystery Bridge Superfund site. This site had solvent-contaminated groundwater that flowed beneath a subdivision. An alternative source of drinking water was provided to the residents. An Engineering Evaluation Cost Assessment (EECA) was developed for this site.

U.S. Army Corps of Engineers, Remediation, Denver, Colorado. Ms. Bilodeau managed field operations for the final design of a system to contain contaminated groundwater at the Rocky Mountain Arsenal Superfund site near Denver. The system consisted of a 1.25-mile slurry cut-off wall supported by a gallery of dewatering and reinjection wells.

Facility Compliance RCRA

Tronox, LLC (formerly Kerr McGee Chemical LLP), Perchlorate and Chromium Impacts, Henderson, Nevada. This 500 acre site is under several administrative and consent orders. Soil, surface water and groundwater are primarily impacted with perchlorate and chromium. There are three active remediation systems operating on and off site. Developed the Conceptual Site Model for the impacts associated with the

manufacturing plant. Assessed 14 years of monitoring data and the complex interrelationships between neighboring properties. Developed graphics and tables summarizing data. Met regularly with the client and the Nevada Division of Environmental Protection. This site is not on the NPL but is being managed administratively through the RI/FS process. Supervised the statistical assessment of background data and the collection of upgradient soil and groundwater samples. Prepare routine groundwater monitoring reports and support site assessment and clean up activities. Assist the client with management of the database containing physical and chemical data as well as document and schedule control.

Confidential Aerospace Client, Subsurface Soil Assessment, Hawthorne California. Served as the Lead Project manager on a $500,000 fast track subsurface assessment for a active aerospace facility in Hawthorne, California. The project consisted of drilling and sampling 194 borings throughout the plant on an expedited schedule. Volatile organic compounds were of particular concern and US EPA Method 5035 was used to collect the samples. The EasyDraw Syringe® was used to eliminate the Encore sampling step. Savings to the client were in excess of $15,000. The work was structured to support the RCRA Facility Assessment under a DTSC Consent Order.

Tronox, LLC (formerly Kerr McGee Chemical LLP), Post Closure Monitoring for Trona, California. Project manager for the post closure groundwater and settlement monitoring for a boiler ash landfill. The monitoring is conducted under an RWQCB order that was modified in June 2002 to change the groundwater sampling schedule from quarterly to semiannually and to require settlement monitoring once every two years instead of annually. This saved the client 50% of their annual monitoring costs.

Teleflex, Inc., RCRA Permitting and Compliance, Newbury Park, California. Project Director for a RCRA Facility Investigation, Risk Assessment, Corrective Measures Study, and Corrective Measures Implementation for the former Talley Corporation site in Newbury Park, California. A corrective action plan was implemented to treat approximately two million gallons of TCE- and chromium-impacted groundwater per month. This facility was granted the third post-closure permit for a surface impoundment in California. The first RCRA Statement of Basis for a surface impoundment in the United States was also issued for this site. Through effective negotiation, the client saved $3 million in closure monitoring costs. Clean up of soil was completed in 2000.

Boeing (Formerly Rocketdyne), RCRA Closure, Southern, California. As Executive Manager for the closure of two RCRA Hazardous Waste Storage Units within a larger, impacted facility, Ms. Bilodeau was successful in getting approval of the closure plans from the California Department of Toxic Substances Control.

Boeing (formerly Rocketdyne), Post Closure Permit, Southern California. Ms. Bilodeau was the Project Director for the completion of the RCRA post-closure permit for nine surface impoundments in the Los Angeles area. The permit included provisions for monitoring 187 on- and off-site groundwater monitoring wells and operation and maintenance of 6 air strippers and 1 ultraviolet peroxide treatment system. Through effective negotiation, the groundwater monitoring program was reduced to a total of 95 wells, a 49% reduction. Cal-EPA, the lead regulatory agency, also agreed to a reduced list of monitoring parameters.

General Motors, RFI, Michigan. Ms. Bilodeau served as a Senior Technical Reviewer for a RFI being conducted on the General Motors Saganaw facility in Michigan. This active facility encompasses 700 acres and has 7 RCRA Units and 30 Solid Waste Management Units (SWMUs). The facility manufactures engine blocks and other automotive parts. The facility had a foundry and gray iron plant on site in the past.

City of Pico Rivera, Risk Assessment RCRA Storage Facility, California. Ms. Bilodeau provided technical support for development of a risk assessment of a RCRA Storage Facility next to an elementary school. Made a presentation at a public meeting.

Gallade Chemical, RCRA Closure, Santa Ana, California. Project Manager for the development of a closure plan for RCRA Hazardous Waste Storage Unit within a larger chemical manufacturing plant. Prepared supporting documentation for a CEQA Negative Declaration. The site also has an active groundwater treatment plant.

Boeing (Formerly Rocketdyne), Groundwater Database Development, Ventura County, California. As project manager for the database development and statistical analysis of up to 6 years of data from more than 100 wells at a RCRA aerospace facility in Ventura County. Particular attention was focused on the relationship of contaminant concentrations in the vicinity of extraction wells for evaluation of trend relating to treatment effectiveness. Both chemical and radioactive data were evaluated.

Department of Energy, Welden Springs Hydrologic Study, Missouri. As part of a major DOE remedial action project, evaluated hydrologic aspects of containment alternatives for mixed hazardous and radioactive waste at the Weldon Spring Superfund site in Missouri.

Industrial Property Cleanup

California State University Channel Islands, PCB Clean Up, California. Project manager for the assessment and clean up of a PCB pad located within the footprint of the new science building for CSU Channel Islands. The work was conducted under U.S. EPA Region 9 oversight through the self-implementing PCB clean up (40 CFR 761). Concrete and soil impacted with PCBs was excavated and disposed of at a TSCA approved facility. The verification sampling around the impacted area followed US EPA Protocol and the excavation was expanded, as necessary, to remove soil exceeding the clean up criteria. The project was conducted on an expedited schedule as the school was scheduled to open for the fall semester.

Rocketdyne (Now Boeing), Industrial Property Cleanup, Los Angeles, California. Ms. Bilodeau performed a multiphased environmental assessment of a former aerospace laboratory adjacent to the Los Angeles International Airport. The assessment program was conducted throughout the negotiation for sale of this industrial property. Conducted rapid turnaround sampling and assessment, including immunoassay to address the buyer's concerns regarding impacts at the site. The building was being prepared for demolition. Throughout the project it was necessary to work around the demolition contractor's schedule without unduly delaying the collection or reporting of data. The site has been sold and redeveloped.

Western Farm Service, Assessment and Remediation of former Pesticide Site, Watsonville, California. Served alternately as project manager, senior project manager and quality assurance officer on a long term project for Shell Oil Company and Western Farm Service in Watsonville, California. Key contributions were to obtain the CEQA Negative Declaration for the remediation, develop bid documents, and to coordinate obtaining the necessary permits for building demolition, excavation of impacted soil and final grading of the site. Assisted in a QA role during the remediation.

American National Can Company, Industrial Property Cleanup, Carson, California. Ms. Bilodeau assisted the client, their attorneys, real estate agents, and the regulatory agencies with negotiations for sale of the Harbor Facility. Impacted soil was removed and closure of the regulated unit was obtained for American National Can Company, the seller. Provided data for the preparation of the negative declaration determination with regard to the redevelopment of the site. The property was sold and has been redeveloped.

Andrew Jergens, Industrial Property Cleanup, Burbank, California. Ms. Bilodeau was responsible for addressing environmental impacts present at the former Andrew Jergens manufacturing facility. Eight underground storage tanks were removed on an expedited schedule. Impacted soil was removed in the vicinity of the tanks and a clarifier. Closure of the regulated unit was obtained for Jergens, the property sold, and redeveloped into an office complex.

Mairoll, Industrial Property Cleanup, Redondo Beach, California. As Project Director for the cleanup of a former Voi Shan, Fairchild Fastener site, Ms. Bilodeau evaluated the soil and groundwater beneath the site which was impacted with metals and volatile organic compounds. This facility has been redeveloped into a grocery store. The soil vapor extraction and groundwater treatment systems operate unobtrusively behind the store.

Litigation Support

O'Donnel & Shaeffer, Litigation Support, California. In 1999, provided expert witness and litigation support for a major aerospace corporation's cost recovery under CERCLA against the U.S. Government, Department of Defense. Key elements of the case included actions taken at the direction of a regulatory agency and the cost of specific remedial actions including building demolition. The case was favorably settled for the client in mediation. The contested items were valued over $100 million.

Confidential Client, Litigation Support, Southern California. Designated as an expert witness for a bankruptcy case involving the closure of a refinery in Southern California. Reviewed site history and assessed the cost associated with cleanup of the soil and groundwater beneath the site. Because of the nature and extent of impact has not been completely defined, the Monte Carlo statistical method was used to manage the uncertainty regarding volumes and concentrations of constituents. Site remediation was estimated to cost approximately $100 million.

Confidential Aerospace Client, Litigation Support, California. Ms. Bilodeau served as a National Account Manager for a major aerospace firm from 1992 to 2000. She also served as a technical and regulatory resource since she had been involved with permitting the client's larger California sites. From 1994 to 1995, she served as

Corporate Representative for the client's suit to recover damages from its insurance carrier. She has managed approximately $2 million of work for this client nationwide.

Confidential Client, Litigation Support, Newbury Park, California. Ms. Bilodeau was designated as an expert witness and corporate representative for several cases involving metal and solvent contamination at a former aircraft manufacturing facility. One case was with the facility's insurance companies and another was with an adjacent property owner.

Confidential Client, Litigation Support, Van Nuys, California. In 1998, assisted a client through successful mediation regarding approximately $200,000 in costs associated with remediating a petroleum spill associated with an underground fuel tank.

City of Bell Garden, Suva School Chromium Assessment, California. Provided technical support consisting of field oversight and independent subsurface investigation for the City of Bell Gardens in 1999. The City was named in a wrongful death suit for alleged environmental impacts from a chrome plating shop adjacent to an elementary and middle school. The California EPA, South Coast Air Quality Management District, Montebello School District, and Regional Water Quality Control Board were also investigating the site. Several public meetings were attended. Lead paint abatement was carried out by the school district and the chrome plating shop voluntarily closed.

Power Plant Support

Inland Energy, Victorville, California. Provided geologic and soils expertise oversight for the Application for Certification (AFC) to the California Energy Commission (CEC) for the Victorville 2 solar power plant project. Reviewed the Geologic Hazards and Resources sections for the site that included determining the likely impact of ground shaking, liquefaction, seismically induced landslides and slope failure of specific areas in southern California. Responsible for review of the evaluation of soil, agricultural, and groundwater resources.

Woodside Natural Gas Inc., Power Plant Support, Los Angeles, California. Offshore LNG Pre-application Documentation. Provided the geologic assessment and impact assessment for a proposed offshore LNG facility in Southern California. Detailed analysis of the fault crossings and turbidity currents associated with Santa Monica Bay were included. The onshore portion of the preferred pipeline location as well as alternatives were primarily with existing transportation corridors. Hazards including tsunami run-up, liquefaction and mass movements were assessed. In addition a subsurface shoreline crossing using HDD drilling techniques were evaluated. 2006 – ongoing.

Sempra Energy, BP ARCO and the Cities of Vernon and Victorville, Application for Certification, California. Provided geologic and soils expertise for the Application for Certification (AFC) from the California Energy Commission (CEC) for four southern California power plants in 2001. Prepared the Geologic Hazards and Resources sections for two sites in the Los Angeles Basin, one in Escondido, and one in the Mojave Desert. Was also responsible for the evaluation of soil and agricultural resources. Interfaced with regulatory agencies and local municipalities regarding laws, ordinances, regulations and standards that applied to the individual plants and

identified key points of contact for permits needed. Most plants were on expedited schedules so accurate and complete permit applications were critical

Confidential LNG, Alternative Siting Study, California. During 2002, for a confidential client, provided the geologic hazard analysis of 12 alternative LNG sites in California. The Blake, 2000 EQFAULT computer program was used to predict maximum probable earthquake ground accelerations at each site and to identify nearby active faults. Other geologic hazards such as tsunami run-up, liquefaction, ground lurching and landslides were also identified.

School Siting Support

California State University Channel Islands, PCB Clean Up, California. Project manager for the assessment and clean up of a PCB pad located within the footprint of the new science building for CSU Channel Islands. The work was conducted under U.S. EPA Region 9 oversight through the self-implementing PCB clean up (40 CFR 761). Concrete and soil impacted with PCBs was excavated and disposed of at a TSCA approved facility.

W.P. Carey, LLP, PEA for Santee Dairy, Los Angeles, California. Served as the quality assurance quality control officer for a $2 million assessment of commercial/industrial property in downtown Los Angeles. The Los Angeles Unified School District was interested in purchasing the property for a school so the investigation and risk assessment were conducted under the California Preliminary Environmental Assessment requirements. Over 3,000 data points were analyzed under three different laboratories. Ms. Bilodeau wrote the quality assurance project plan (QAPP) and directed the data validation process. The site received a "no further action" determination from the DTSC in a record five months.

Solid Waste/Landfills

Aerospace Landfill, Clean Closure, California. Ms. Bilodeau was the California Certified Engineering Geologist for the clean closure of a landfill at a rocket testing facility in southern California. The work was performed under the oversight of the DTSC in 2000. Key contaminates of concern were Mercury, dioxin, PCBs and perchlorate. Over 13,000 tons of material were removed from the landfill and adjacent drainage channels.

Allied Waste, Inc., Landfill Acquisition, Ohio and Kentucky. Assisted with the environmental due diligence investigation for the acquisition of 60 landfills and 80 hauling companies, material recovery facilities, and transfer stations. Personally conducted the due diligence investigations of five facilities, including regulatory agency reviews and assessment of groundwater impacts. The major focus of the investigation was evaluating liabilities in excess of $250,000. Compiled and summarized the information from the facilities being acquired nationwide and coordinated the preparation of the nine-volume report.

Allied Waste, Inc., Landfill Acquisition, Kansas. Coordinated the due diligence investigation of 80 quarries, landfills, and an asphalt plant in Kansas. Supervised the field team that visited the sites and reviewed the site and regulatory agency files. Personally conducted the field visits for nine of the sites and coordinated the preparation of the 10-volume environmental assessment report.

Allied Waste, Inc., Environmental Audit, Nebraska. Assisted in the annual environmental self-evaluation of Allied Waste, Inc. Coordinated the audits of the facilities in Nebraska and conducted the audit of a site proposed for the National Priorities (Superfund) List. Particular emphasis was placed on groundwater impacts and detailed evaluations were conducted of the most recent monitoring data from all of the sites nationwide. Coordinated the preparation and delivery of the 25 volume report.

Allied Waste, Inc., Landfills Acquisition, Oklahoma. Performed the environmental due diligence associated with acquisition of eight landfills in Oklahoma. Conducted the site visits, document reviews and compliance evaluations.

Multiple Clients, Groundwater Monitoring Plans for Five California Landfills, California. Ms. Bilodeau was the Project Manager for groundwater monitoring programs and financial assurance cost estimates for five California landfills. Physical settings of the landfills varied from upland areas underlain by fractured bedrock to coastal areas located within the water table adjacent to bays and estuaries. Detection, evaluation, and corrective action groundwater monitoring plans were developed. The plans have been accepted by the Regional Water Quality Control Board.

City of San Diego, Mission Bay Landfill, San Diego, California. As Project Director for the statistical evaluation of surface water and groundwater data for the City of San Diego's Mission Bay Landfill, Ms. Bilodeau developed the detection and evaluation monitoring plans and determined that some of the observed surface water and groundwater impacts were a result of flood and dire events. The landfill has been converted into a park and marina and is located next to Sea World Aquatic Park.

City of Burbank, Groundwater Monitoring, California. Ms. Bilodeau prepared the Evaluation Monitoring Plan (EMP) for the Burbank Landfill. The purpose of the EMP was to evaluate changes in groundwater quality due to a release of volatile organic compounds from the landfill. It was accepted with minor revisions by the RWQCB. Implementation of this plan refined the understanding of the nature and extent of groundwater impact and was used to design the correction action program.

Templeton Gap Corporation, Templeton Gap, Colorado. Investigated groundwater impacts beneath and downgradient of the Templeton Gap Landfill. The investigation included the drilling and installation of three additional groundwater monitoring wells. In-situ packer tests were conducted of the natural clay material that was present beneath the landfill. Quarterly sampling of the groundwater was also performed.

Boulder County, Landfill Siting Study, Colorado. Ms. Bilodeau conducted a siting study for alternative locations for a new solid waste landfill for Boulder County to replace the existing landfill, which is a Superfund site.

Onieda Indian Tribe, Natural Resource Damage, Madison, Wisconsin. Evaluated potential natural resource damage to a drinking water aquifer resulting from operations at a landfill adjacent to the Oneida Indian Tribe's reservation.

Technical/Geotechnical

Multiple Clients including Cities, Counties, Developers, Water Companies and Power Companies, Geotechnical Field Work, California and Colorado. Worked as a staff and senior geologist on a wide variety of geotechnical studies for earth dams

and reservoirs, groundwater contamination remediation, nuclear and fossil fuel power plants, and subdivision planning and development. Field work included surface geologic mapping, trench and borehole logging, rock coring, field testing of samples, and preservation and shipment of samples. Responsible for training new field personnel.

Publications

"Geology of Los Angeles, California," Coauthor, Environmental & Engineering Geoscience, Vol. XIII, No. 2 (pages 99 to 161) a joint publication of the Association of Environmental and Engineering Geologists and the Geologic Society of America, May 2007

"Geology of Los Angeles, California," Coauthor, Environmental & Engineering Geoscience, Vol. XIII, No. 2 (pages 99 to 161) a joint publication of the Association of Environmental and Engineering Geologists and the Geologic Society of America, May 2007

"Groundwater Monitoring Requirements for Hazardous Waste Units Under Federal and California Regulations," Coauthor, Proceedings of Hazmacon '93, San Jose, California, April 1993.

"Groundwater Monitoring Requirements for Landfills Under Federal and California Regulations," Coauthor, Second EG Proceedings, Association of Engineering Geologists, 1992.

"Engineering Geology of the Denver Metropolitan Area": Coauthor, Engineering Geology of the Western United States Urban Centers, 28th International Congress Field Trip Guidebook Los Angeles, California to Denver, Colorado, 1989.

"Geology of Boulder, Colorado, USA": Coauthor, Bulletin of the Association of Engineering Geologist, Vol. XXXIV, No. 3, 1987.

"Geology of Denver, Colorado, USA": Coauthor, Bulletin of the Association of Engineering Geologist, Vol. XIX, No. 3, 1982.

"Urban Geologic Problems Associated with the Mexco Fault Zone": Author, Proceedings for the Conference on the Guatemalan Earthquakes of February 1986 and the Reconstruction Process, 1978.

Earthquakes of February 1976 Fracture Map Contributor, Instituto Geographico Nacional, Guatamala Valley, Central America, 1976.

"Geology of Los Angeles, California," Coauthor, Environmental & Engineering Geoscience, Vol. XIII, No. 2 (pages 99 to 161) a joint publication of the Association of Environmental and Engineering Geologists and the Geologic Society of America, May 2007

NAVIGANT
CONSULTING

David T. Larsen

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Director

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Professional History

- Navigant Consulting, Inc. (1986 - Present) Director
- Arizona Electric Power Cooperative, Inc. (1975 - 1986) Supervisor of System Planning

Education

- B.S., Electrical Engineering, South Dakota State University, Brookings, 1970

Professional Associations

- Institute of Electrical and Electronics Engineers
- National Honorary Electrical Engineering Society

Mr. Larsen has over 35 years of experience in transmission and resource planning and the development and negotiation of power contracts. At Navigant Consulting, he oversees the evaluation and planning of transmission projects and provides technical support in the evaluation and negotiation of power contracts and the performance of power marketing analyses. Mr. Larsen has performed or supervised interconnection and system impact assessments for proposed thermal generating projects in 25 states and for numerous wind energy projects in the western United States. He has also participated in the planning of several major electric transmission projects. He has represented one of Navigant Consulting's major transmission owner clients on the Western Electricity Coordinating Council's Planning Coordination Committee.

Prior to joining Navigant Consulting, Inc., Mr. Larsen was employed by the Arizona Electric Power Cooperative and was actively involved in resource and transmission planning in the Desert Southwest. Mr. Larsen was one of the original members of the Southwest Area Transmission Planning Committee, which was responsible for the performance of coordinated powerflow and transient stability evaluations of the interconnected system (500-kV, 345-kV, and 230-kV) in the Desert Southwest and served as chairman of the Committee.

Professional Experience

» **Impact of Thermal Unit Retirements, California Energy Commission, California.** In its 2005 Integrated Energy Policy Report (2005 IEPR), the Energy Commission adopted a policy that the aging fossil-fueled power plants in California should be retired or repowered by 2012. As part of the development of the 2007 IEPR Navigant Consulting, Inc. (NCI) was retained by the Energy Commission to undertake a study which examined the implications of a retirement by 2012 of the majority of such power plants in the Southern California Edison (SCE) service area. This study examined how the need for replacement capacity and transmission system upgrades might be different under three broad scenarios of future resource development: (1) a build-out satisfying current energy efficiency and renewables policies, (2) the current policy goals plus an expansion of savings from energy efficiency, and (3) the current policy goals plus a much larger emphasis of renewables. The results of the studies revealed that: (1) significant transmission upgrades would be required by 2012 to replace Aged Plants located on the western side of the SCE service area with replacement capacity on the eastern side of the service area: and (2) there are differences in associated transmission upgrades depending upon the resource build-out strategy and that additional transmission upgrades would be needed beyond 2012 due to load growth. The study also suggests that close coordination is needed among the pertinent parties with respect to power plant retirement, the planning and development of replacement resources, and the planning and development of the required transmission line upgrades.

» **Combined Cycle Project System Impact Study, E&L Westcoast, LLC, Northern California.** Managed and was actively involved in the powerflow, transient stability, and post-transient studies performed by NCI to assess impacts on the system in northern California due to the proposed interconnection of a 700 MW (nominal) combined-cycle power project with the Pacific Gas & Electric system. These studies were performed as part of the development of the system impact study (SIS) for the project and were coordinated with PG&E and the California ISO. The SIS was completed and approved by both PG&E and the ISO in August of 2005. Subsequently worked with the Sacramento Municipal Utility District and the Western Area Power Administration to identify options for mitigating Project-related impacts of their systems. Also provided technical assistance with respect to the development and filing of the Application for Certification (AFC) for the Project with the California Energy Commission (Energy Commission).

» **Magnolia Power Project, Southern California Public Power Authority, Southern California.** Managed and was actively involved in the powerflow, transient stability, post-transient, and short circuit studies performed by NCI on behalf of the Project participants to assess impacts on the City of Burbank 69-kV system, to which the project will be connected, and on the 500-kV and 230-kV grid in the Los Angeles Basin. Also coordinated Project-related technical studies with the Los Angeles Department of Water and Power (LADWP) and with Southern California Edison (SCE). Developed documents for use in the Application for Certification (AFC) submitted to the California Energy Commission and provided technical support to the Project manager in various discussions with LADWP and SCE regarding the replacement of circuit breakers on the LADWP and SCE systems. In addition, performed studies assessing incremental losses on the Burbank system for various load levels and dispatch levels for the MPP and the existing Burbank generation and assessing system impacts if the normally open ties between Burbank and the City of Glendale were closed.

» **Malburg Power Project, City of Vernon, Southern California. 2002.** Managed and was actively involved in the powerflow and short circuit studies performed by NCI on behalf of the City of Vernon to assess impacts on the City's 66-kV system, to which the project will be connected, and on the 500-kV and 230-kV grid in the Los Angeles Basin. Also coordinated Project-related technical studies with the Los Angeles Department of Water and Power (LADWP) and with Southern California Edison (SCE). Developed documents for use in the AFC submitted to the California Energy Commission and provided technical support to the Project manager in various discussions with LADWP and SCE regarding the replacement of circuit breakers on the LADWP and SCE systems.

» **Preliminary Feasibility Assessments for Thermal/Solar Combined Cycle Projects, Inland Energy, Inc, Southern California.** Inland Energy and two cities in Southern California are pursuing the development of two 570 MW (nominal) combined cycle generators that would be interconnected with the ISO-controlled grid. Both of the projects will include a solar component which will provide thermal energy to the steam generators and provide approximately 50 MW of their net capacity. Both projects would be located in portions of the system which are subject to transmission constraints and in which significant amounts of renewable energy capacity is being proposed. NCI has provided support to Inland Energy during its assessment of the technical feasibility of both projects and, subsequently, during the California ISO (CAISO) interconnection study process and by preparing pertinent portions of the Applications for Certification for the projects that were submitted to the California Energy Commission. Specific services have included: (i) the performance of powerflow and transient stability studies to assess the system impacts of the proposed projects; (ii) preparing preliminary cost estimates for the interconnection and system upgrades required for each project; (iii) developing the generator interconnection requests for each project for submittal to the CAISO and the local utility; and (iv) participating in the scoping meetings with the CAISO and the utility for the two projects.

» **Conceptual Wind Energy Delivery System, Confidential Client, California.** Utilized information in various planning documents prepared by Southern California Edison for the California Public Utilities Commission and the California ISO to prepare powerflow data sets which modeled the 500-kV facilities required to deliver up to 4,000 MW of wind capacity from the Tehachapi area in south-central California to load centers in Northern and Southern California. Also developed preliminary cost estimates for the specified facilities.

» **California-Oregon Transmission Project. Transmission Agency of Northern California. Southern Oregon to Central California.** Supervised and was actively involved in the performance of powerflow, transient stability, and post-transient stability evaluations of the interconnected system in the western United States as part of the planning and operations of the California-Oregon Transmission Project (COTP), a 340-mile, 500-kV transmission line between Oregon and California which was placed in service in March of 1993. Also provided written direct and rebuttal testimony relative to ratings, losses, and use by the owners of the COTP for a FERC hearing in 1992-1993 and was cross-examined on these issues during the hearings. As part of these efforts, alternative methods of determining losses were developed and included in the testimony. In addition, assisted in: (1) preparing discovery; (2) developing responses to discovery; (3) developing testimony and; (4) lines of questioning for the hearings. Since 1993 have represented the owners of the COTP on various Western Electricity Coordinating Council (WECC) work groups, study groups, and committees associated with both system planning and seasonal operating studies.

» **500-kV Expansion Plan, Transmission Administrator of Alberta, Alberta, Canada.** Provided management oversight for the performance of technical analyses undertaken to assist the Transmission Administrator of Alberta in the development of a long-range expansion plan for a 500-kV grid in Alberta. This plan identified the new facilities required to deliver varying amounts of new, remote generation to load centers in the Province and conceptual facilities required to export up to 3,000 MW of power to the United States.

» **Assessment of Transmission Options for Coal-Fired Generation Plants, Confidential Client, WECC Area.** A client of NCI was considering the acquisition of capacity from proposed coal-fired power plants in Wyoming, Utah, and New Mexico and retained NCI to identify and assess potential transmission options to deliver the output of these plants to trading hubs in southern Nevada and central Arizona. Activities undertaken by NCI included: (1) identifying potential transmission paths between each of the four projects and the desired trading hubs and reviewing OASIS information to identify amounts of available transmission capacity over these paths; (2) performing technical studies to identify and assess facilities that could increase the capabilities of constrained paths; (3) developing estimates of transmission costs and losses for existing paths and of capital costs and operating costs for new facilities; and (4) performing NPV calculations to identify the overall transmission-related costs (on a dollars per kilowatt-delivered basis).

» **Assessment of Interconnection Options, Southern California Public Power Authority, Southern California.** Assisted the Cities of Burbank, Glendale, and Pasadena in identifying and assessing potential new transmission interconnections between themselves to increase system reliability and new interconnections with the SCE system to facilitate wholesale transactions through the California Independent System Operator (ISO) controlled grid. As part of this effort, NCI performed powerflow and transient stability studies of the system in the Los Angeles Basin (including detailed models of the Cities systems) to evaluate eight different options for providing the new interconnections. The options considered included the development of new 69-kV or 230-kV facilities between the Pasadena and Glendale systems and enhanced interconnections between the Burbank and Glendale systems. NCI also developed preliminary cost estimates for selected new interconnection options.

Merlyn James Paulson

Merlyn Paulson is ENSR's senior specialist in aesthetics of cultural and natural resources, visual resources, digital imaging and GIS. He is a land architect and environmental planner with 35 years of experience in conducting visual and geo-spatial analysis of NEPA-related development alternatives, and generating mapping, imagery, and illustrations for site, linear, and regional projects. His computer visual simulations, or "photographs of the future," have been used extensively as decision-making tools for project development, description, and assessments. Since 1975, he has taught and conducted research in aesthetics, simulation, GIS, and digital imaging at Colorado State University.

Mr. Paulson has extensive experience with aesthetics and visual resources projects and CEC/AFC, EIS, SEIS, and EA studies. He understands NEPA-related applications of the BLM's Visual Resource Management System and USFS' Scenery Management System. He has conducted several projects requiring hybrid application of the CEC, BLM and USFS visual resources systems in their respective jurisdictions.

Years Experience: 35

Technical Specialties

- Aesthetics and Visual Resources
- Visual Simulations
- Geographic Information Systems
- Land Architecture
- Photography

Education

- MLA II (Landscape Architecture and GIS) Harvard University
- BLA (Landscape Architecture and Environmental Planning) Utah State University
- None (Landscape Architecture and Ecology) University of Minnesota
- None (Fisheries and Wildlife Biology) Winona State College

Professional Registrations and Affiliations

- Fellow, American Society of Landscape Architects

Representative Power Plant Project Experience

Beacon Solar Energy Project, FPL Energy, California. ENSR technical expert for visual resources field investigation, visual/aesthetics inventory and analysis, computer - aided photographic visual simulations, and GIS visibility analyses of alternatives connected with the generating station, solar array and transmission line options. 2008.

Colstrip Power Plant and Ancillary Facilities, Colstrip, Montana. Graduate degree thesis at Harvard University using this project for research and development of methods for computer - aided photographic visual simulations and GIS visibility analyses of the generating station and transmission lines. 1975.

Missouri River Energy Services / Ottertail Power Company, Big Stone II Generating Station Expansion and 230kV Corridor Selection Project, Minnesota – South Dakota. Technical expert at ENSR for GIS for all disciplines, field investigation, visual/aesthetics inventory, computer - aided photographic visual simulations, and visibility analyses for the Big Stone II Generating Station and 230kV transmission line corridors to several substations near Morris, Spicer, and Granite Falls, Minnesota. 2006.

Rawhide Generating Station, Platte River Power Authority, Colorado. EDAW technical staff for visual resources field investigation, visual/aesthetics inventory and analysis, connected with the generating station and transmission lines. 1978.

Santan Generating Station, Arizona Public Service Co., Phoenix, Arizona. ENSR technical expert for GIS and visual resources field investigation, visual/aesthetics inventory and analysis, computer - aided photographic visual simulations, and GIS visibility analyses for the generating station, transmission lines and pipeline. 2004.

Sierra Pacific Power Company, 1000 Springs 2000-MW Generating Station Simulation Project, 1000 Springs, Nevada. Performed environmental simulations of the proposed generating station in north central Nevada. 1993.

Tri-State Generation and Transmission Association, Pyramid Generating Station, New Mexico. ENSR technical expert for GIS and visual resources for aerial photographic interpretation, digitizing, detailed mapping, and spatial analyses of alternatives connected with the generating station, transmission line and pipeline. 2002.

Victorville 2 Generating Station, Inland Energy Corp., Victorville, California. ENSR technical expert for visual resources field investigation, visual/aesthetics inventory and analysis, computer - aided photographic visual simulations, and GIS visibility analyses of alternatives connected with the generating station, solar array, and transmission line. 2006.

Western Area Power Administration, Lawrence Livermore Laboratory Direct Service 230-KV Transmission Line Project, Livermore, CA. Woodward - Clyde Consultants technical expert for visual resource simulations for critical vantage points between Bethany Reservoir and Patterson Pass Road near Livermore. 1993.

Arrie Bachrach

Senior Technical Advisor

Years Experience: 35

Technical Specialties

- Power Plant Licensing
- Environmental Impact Reports
- Environmental Impact Statements
- NEPA Public Participation
- Socioeconomics
- CERCLA Community Relations
- Risk Communication
- Environmental Communications/Risk Communications
- Technical Writing/Editing

Education

- MA (Political Science) University of California Los Angeles
- BA (Political Science) University of California Los Angeles

Representative Project Experience

Cities of Victorville and Palmdale, Hybrid (Combined-Cycle and Solar Thermal) Power Plant Licensing, Victorville, California and Palmdale, California. Deputy Project Manager for California Energy Commission (CEC) licensing of two essentially identical 563 MW hybrid power plants combining natural gas-fired combined-cycle technology with 50 MW of solar thermal generating capacity (parabolic trough collector technology). The Victorville project is proposed on a largely undeveloped site adjacent to the Southern California Logistics Airport (formerly George Air Foce Base), and also includes 21 miles of new/upgraded transmission lines and a reclaimed water pipeline to supply cooling water from a nearby wastewater treatment plant. Key issues include biological resources (habitats for a number of special status species exist on the site), cultural resources at the site and along the linear facilities routes, air quality, water resources and visual resources impacts. The Application for Certification (AFC) was judged Data Adequate by the CEC in 41 days (unusally short time) with relatively minor modifications. The licensing process is still ongoing. The Palmdale project is proposed on a roughly 300-acre site near Air Force Plant 42 in Palmdale. The AFC is in preparation. Key issues are generally similar to the Victorville project (habitat impacts, water resources, cultural and visual resources, and air quality).

Beacon Solar, LLC, Solar Thermal Power Plant Licensing, Kern County, California. Deputy Project Manager for CEC licensing of a 250 MW solar thermal power plant (parabolic troughs) north of California City in the California desert. The approximately 2,012-acre site was largely disturbed by past agricultural activities, but potential impacts on special status species habitats (desert tortoise, Mohave ground squirre, and wesern burrowing owll) are still key issues, as are potential

impacts on water resources, cultural and visual resources. The project includes new transmission lines, and a natural gas pipeline (primarily for startup power). Comprehensive special status species surveys have been conducted in accordance with established protocols, as have cultural and paleontological resources surveys. The AFC was submitted in March 2008.

Abengoa Solar, Inc. Solar Thermal Power Plant Licensing, San Bernardino County, California. Project Manager for CEC licensing of a 250 MW solar thermal power plant (parabolic troughs) proposed near Harper Dry Lake west of Barstow in San Bernardino County. The project is proposed on a roughly 1,500-acre site adjacent to the dry lakebed; most of the site was previously in agricultural production and thus is largely disturbed. As with virtually all land intensive solar projects in the California desert, potential special status species habitat impacts are a major issue, primarily desert tortoise, Mohave ground squirrel, and Western burrowing owl. Other key issues include potential impacts on water resources, cultural resources, and visual resources. Extensive biological, cultural, and paleontological surveys have been conducted. The AFC is in preparation.

Sempra Energy, Combined-Cycle Power Plant Licensing, Escondido, California. Deputy Project Manager for the licensing by the CEC of a 550-MW gas-fired combined-cycle power plant in Escondido, California. The project was proposed within a planned industrial park, to be developed on the last major undeveloped area designated for industrial use in Escondido, a city of 130,000 people in San Diego County. Key issues included visual resources impacts, noise, air quality, biological resources impacts, and land use compatibility. The AFC was judged Data Adequate by CEC staff with only minor changes needed; CEC staff praised the quality of the document in an interview with a local newspaper in Escondido. Subsequent to the CEC licensing decision, prepared petitions to amend the CEC conditions of certification to deal with changes in project conditions with respect to allowable noise levels and the use of reclaimed water for power plant cooling. Project construction was completed and the power plant went into operation in early 2006.

SDG&E, Otay Mesa Due Diligence Assessment, San Diego County, California. Project Manager for a due diligence review related to the potential purchase of the partly constructed Otay Mesa power plant from Calpine. Review identified the status of compliance with CEC requirements, estimated costs to complete, looked at permit conditions to identify potential problems that could prevent the plant from operating, and researched permitting issues such as biological mitigation and potential expiration of the PSD permit. Based on the risks identified by the report, SDG&E opted to negotiate the purchase of the facility to happen after construction is completed.

BP, Refinery Modifications Environmental Impact Reports, Carson, California. Project Manager for two separate CEQA documents for modifications at BP's southern California refinery: 1) Addendum to the Final EIR for MTBE Phase-out/CARB Phase 3 Project, and 2) Initial Study/Negative Declaration for Refinery Upgrades. The EIR Addendum was required because the approach to conversion of the Refinery's MTBE Unit to other uses was modified from the original EIR. The Refinery upgrades project involved replacing an existing sour water storage tank and vacuum distillation unit, as well as modifying pressure relief valves on a crude unit. For both projects, key issues were air quality, hazards, and traffic circulation.

ConocoPhillips Petroleum, Environmental Impact Report, Rodeo, California. Responsible for the CEQA portion of ENSR's permitting support for Philips Petroleum proposed Ultra Low Sulfur Diesel/Strategic Modernization Project at its Rodeo Refinery. This project involved refinery to allow production of ultra-low sulfur diesel fuel to meet upcoming regulatory requirements, as well as to improve the overall efficiency and productivity of the refinery.. Key issues included air emissions, potential hazardous materials impacts and risks, and construction phase traffic and noise impacts.

Chevron Products Company, EIR on Heavy Crude Project, El Segundo, California. Played a key role in the CEQA review of a proposed project to make modifications to Chevron's EL Segundo Refinery to allow the refinery to efficiently process heavier crude oils that are expected to become an increasingly important share of the crudes that the refinery receives. Prepared a number of the technical analyses for the CEQA Initial Study that demonstrated that the project would have minimal impacts and no further evaluations were required in several issue areas (e.g., visual resources, land use, socioeconomics), and directed the traffic and transportation study prepared by a subcontractor.

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CARA CORSETTI, M.S.
Program Director, Paleontology

Education and Training

- M.S., Geological Sciences, emphasis in Paleobiology, University of California, Santa Barbara
- B.A., major in Creative Studies, emphasis in Biology, University of California, Santa Barbara

Areas of Expertise

As a program director for SWCA, Ms. Corsetti oversees all paleontological projects assigned to the California region. Her wide range of experience in paleontological resource management includes the development of paleontological mitigation treatment plans; conducting paleontological resource assessments on both a small and large scale; performing field reconnaissance and paleontological surveys; conducting paleontological monitoring and salvages; performing laboratory analysis, database management, and literature review and research; and technical report writing and California Environmental Quality Act (CEQA) / National Environmental Policy Act (NEPA) documentation. In addition to her Program Director responsibilities, Ms. Corsetti also functions as the office director for SWCA's Southern California offices (Pasadena and Orange County).

Ms. Corsetti has been involved in approximately 200 projects throughout California, Nevada, Wyoming, and Utah and has successfully worked with various lead agencies such as the Bureau of Land Management, US Army Corps of Engineers, Caltrans and the California Energy Commission. She has also taken several classes in NEPA (Section 106) and CEQA regulatory compliance.

Ms. Corsetti has been certified on a project specific basis through the California Energy Commission (CEC) as a Paleontological Resource Specialist, and is also certified or qualified as paleontologist or supervisor in Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.

Relevant Projects

Project Manager, Beacon Solar Energy Project, Kern County, California (2007 – present): SWCA is currently providing paleontological resources services for the Beacon Solar Energy Project in Kern County California. The scope of work includes (1) performing background research and museum records searches of the project area and vicinity, (2) conducting paleontogical field survey, and (3) preparating a technical report that includes project-specific mitigation measures to be implemented during the ground disturbing associated with the approximately 2500 acre plant site, and associated utility lines. *Client: ENSR.*

Senior Paleontologist, Riverside Energy Resource Center Units 3 & 4, Riverside County, California (2007 – present): SWCA is currently providing paleontological resources services in support of the Small Power Plant Exemption Applicationo for the Riverside Energy Resource Center Units 3 & 4 Project in Riverside County, California. Studies conducted include 1) performing background research and museum records searches of the project area and vicinity, (2) conducting the paleontogical field survey, and (3) preparating a technical report

that includes project-specific mitigation measures to be implemented during the ground disturbing. *Client: Power Engineers*

Project Manager, Victorville 2 Hybrid Power Project, San Bernardino County, California (2006-present): SWCA is currently providing paleontological resources management services for the Victoriville 2 Hybrid Power Project in San Bernardino County, California. The scope of work includes (1) performing background research and museum records searches of the project area and vicinity, (2) conducting paleontogical field survey, and (3) preparating a technical report that includes project-specific mitigation measures to be implemented during the ground disturbing associated with the 250 acre plant site, associated utility lines, and approximately 20 miles of transmission line right-of-way. *Client: ENSR.*

Project Manager, Kings River Conservation District Community Power Plant Project, Fresno, California (2006 – present): SWCA is currently providing paleontological resources services in support of an Application for Certification for the Community Power Plant Project in Fresno, California. Studies conducted include 1) performing background research and museum records searches of the project area and vicinity, (2) conducting the paleontogical field survey, and (3) preparating a technical report that includes project-specific mitigation measures to be implemented during the ground disturbing. *Client: Navigant Consulting.*

Paleontological Resource Specialist / Project Manager, Kings River Conservation District Peaking Plant, Fresno County, California (2004-2005): As the project manager and one of the CEC approved Paleontological Resource Specialists for this project, Ms. Corsetti was responsible for overseeing all paleontological tasks associated with the construction of a small peaking plant located in Fresno County, California. Prior to the commencement of project construction, a paleontological resources survey and assessment was performed of the approximately 18-acre project plant site and associated utility lines. A Paleontological monitoring and mitigation program (PRMMP) was designed to identify and salvage scientifically significant paleontological resources and associated data as rapidly as possible in order to prevent construction delays. Additionally, SWCA prepared and implemented the worker environmental awareness training program for paleontological resources as per the project Conditions of Certification. Paleontological monitoring by SWCA's CEC certified paleontological monitors was performed during the construction of the plant site. A final monitoring report documenting the results of the monitoring program was prepared and submitted to the client. *Client: Navigant Consulting for the Kings River Conservation District.*

Paleontological Resource Specialist, Cosumnes Power Project, Sacramento County, California (2003 – 2005): SWCA assisted Sacramento Municipal Utilities District (SMUD) officials with the implementation of the project's Conditions of Certification, as required by the California Energy Commission (CEC) during a major construction effort for a power plant site, a new gas pipeline, and other facilities. SWCA's team of paleontologists designed and implemented worker environmental awareness training program for paleontological resources per the project's Conditions of Certification, performed a field survey and conducted soils testing and paleontological sensitivity analysis, prepared and implemented a Paleontological Resources Monitoring and Mitigation Program for the project. Ms. Corsetti was approved by the CEC as

one of the Paleontological Resource Specialists for the project and was responsible for overseeing all paleontological tasks. *Client: Sacramento Municipal Utilities District.*

Paleontological Resource Specialist/ Paleontology Task Manager, Riverside Energy Resource Center, Riverside County, California (2004 - 2005): SWCA was retained by Power Engineers, Inc. to provide support of an application by the Riverside Public Utilities to the California Energy Commission (CEC) for a Small Power Plant Exemption (SPPE) for the Riverside Energy Resource Center (RERC) in the city of Riverside and subsequent paleontological serviced during the construction of the RERC and associated transmission line. As Paleontology Task Manager, Ms. Corsetti was responsible for overseeing paleontological work including (1) museum records searches and literature reviews, (2) reconnaissance field surveys, (3) design and preparation of a Paleontological Monitoring and Mitigation Plan (PRMMP), (4) design and implementation of a workers environmental awareness program, and (5) implementation of monitoring and mitigation services. Paleontological monitoring of paleontologically sensitive geologic units is complete and a final report of findings is underway. *Client: Power Engineers, Inc.*

Paleontological Resource Specialist / Project Manager, Mountainview Power Plant Project; San Bernardino County, California (2002–2005): SWCA provided paleontological monitoring and worker eduction training during the construction of a power plant facility. Job responsibilities include acting as one two designated paleontological resource specialists approved for the project, paleontological resources environmental awareness trainer, field surveyor, project manager, and Technical Report Author. *Client: URS Corporation.*

Paleontological Resource Specialist / Project Manager, High Desert Power Project; San Bernardino County, California (2001–2003): SWCA was contracted by URS Corporation to provide paleontological monitoring and workers awareness training during the construction of a power plant facility. Job responsibilities include acting as one of two designated paleontological resource specialists, paleontological resources environmental awareness trainer, field surveyor, project manager, and technical report author. *Client: URS Corporation.*

Professional Experience

- Program Director, Paleontology, SWCA Environmental Consultants; Pasadena, California (2002–present)
- Senior Project Manager, Paleontology, SWCA Environmental Consultants; Mission Viejo, California (2001–2002)
- Staff Paleontologist, RMW Paleo Associates, Inc.; Mission Viejo, California (2000–2001)

Professional Affiliations and Committees

- Society of Vertebrate Paleontology
- Society for Sedimentary Geology (SEPM)
- Geological Society of America
- Association for Environmental Professionals

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«RESUME_NAME» «LAST_NAME», «License_Tag»
«Custom_Resume_Title»

Thomas M. Barnett, Executive Vice President

Mr. Barnett joined INLAND August, 2003 after more than 15 years with Constellation Energy Group, where he served as a Vice-President in charge of power plant development in the Western U.S. Mr. Barnett has been in the power plant development field for more than 25 years and has developed projects in a dozen different states. Most recently, he led the successful development of Constellation's 830 MW High Desert Power Project in Victorville, CA. In September, 2003 the High Desert Power Project was awarded "Power" Magazine's prestigious Power Plant of the Year for 2003. The editor of "Power" specifically cited Mr. Barnett's development effort as a key reason for the award. Mr. Barnett is leading INLAND's efforts to develop hybrid solar/gas power plants for several communities in Southern California, most notably, the 570 MW Victorville 2 Hybrid Power Project. He has an M.S. in Environmental Science from the University of Virginia and served as an officer with the 82nd Airborne Division, retiring as a major in the Army Reserves.

Sara J. Head, QEP

Years Experience: **32**

Technical Specialties

- Regulatory Permitting and Compliance Support
- Environmental Impact Assessment
- Emission Estimates and Control Technology Reviews
- Air Quality Modeling and Attainment Planning
- Project Management

Professional History

- ENSR Corporation
- AeroVironment, Inc.

Education

- BS (Atmospheric Sciences) University of California at Davis

Professional Registrations and Affiliations

- Qualified Environmental Professional, IPEP
- Air and Waste Management Association, Fellow Member
- Ventura Co. Air Pollution Control District Advisory Committee

Representative Project Experience

Inland Energy, Environmental Permitting, California. Managing two projects to develop hybrid combined-cycle and solar electric generating plants in Victorville and Palmdale. Projects involve preparation of an Application for Certification (AFC) to the California Energy Commission (CEC) and Prevention of Significant Deterioration (PSD) permit application, as well as all other local, air district and regional permits.

Confidential Clients, Environmental Permitting, California and Nevada. Assisting three clients to develop and permit large solar energy projects in the desert regions. All three projects are proposing to use solar parabolic mirror technology. Biological resources, water resources, and seismic issues are some of the major issues being addressed with the environmental studies and permit applications currently under preparation. The AFC for one of these Projects (Beacon Solar) was submitted in March 2008.

Sempra Generation, Environmental Permitting, California. Managed a project to prepare an AFC and obtain a license from the CEC for a proposed new combined cycle power plant (the Palomar Energy Project in Escondido). Major issue areas addressed in the AFC included air quality and biological resources, as well as all environmental impacts. Air Quality modeling

was performed with AERMOD, visibility modeling was done with CALPUFF and PLUVUE II and all PSD permitting requirements were addressed. Water requirements are met with the use of reclaimed water from the local POTW. Subsequent to licensing, assistance has been provided with license/permit modifications and other support.

Mountainview Power Company, Environmental Permitting, California. Managed a project to prepare an AFC and obtain a CEC license for a 1,056 MW expansion of an existing power plant in San Bernardino County. The project included a new 17-mile natural gas pipeline and wastewater connector line. The project completed the CEC process in less than a year from being deemed data adequate.

High Desert Power Project, Air Permitting and Other CEC Support, California. Managed a project to satisfy all the air quality requirements for a new merchant power plant to be sited in Victorville, California. The permitting requirements include a PSD permit from EPA Region IX, a local air permit from the MDAQMD, and a Final Decision from the CEC. The permitting requirements included a BACT determination, an air quality impact assessment using the ISCST3 model, visibility analysis using VISCREEN Level-2 analysis, and a health risk assessment. The project also involved development of a strategy to obtain offsets for the project, including obtaining approvals of an interpollutant, interbasin trade of VOC offsets for NOx emissions. Assistance with hazardous materials (ammonia) handling, FAA stack height and visible plume analysis, biological impacts, and other topics was also provided on this project. Subsequent to licensing, on-going assistance has been provided for permit modifications, protocol review, water permitting, reporting and other compliance services.

Confidential Power Producer, Road Paving Offset Banking, California. Assisting a client to identify candidate unpaved roads and obtain regulatory approvals to generate PM10 emission reduction credits (ERC) from road paving.

Major Power Producer, Offset Availability Analysis, California. Managed a project to investigate the feasibility of generating PM10 emission reduction credits (ERC) from road paving or other means for potential new power plants in the SCAQMD and BAAQMD. Potential PM10 ERC sufficient for the projects' needs were identified.

PG&E National Energy Group, Offset Availability Analysis, California. Managed a project to investigate the feasibility of generating PM10 ERC from road paving or other means for potential new power plants in Kern and San Diego Counties. Potential sources of PM10 ERC were identified, however, other ERC options were utilized.

Sempra Generation, Environmental Permitting, Nevada and Idaho. Managed two project to obtain environmental permits, including PSD, NPDES, and landfill permits; obtain County Special Use Permits; and comply with National Environmental Policy Act (NEPA) for a 1,200 MW and a 600 MW coal-fired power plant. Since project linear facilities (transmission lines, rail road, water lines, etc.) crossed BLM land, the BLM was the NEPA lead agency for these projects, which included extensive biological and cultural baseline studies, as well as ambient air quality and meteorological monitoring program. The projects were cancelled prior to completion of the environmental studies.

WSA

James M. Allan **WSA Principal**

EDUCATION

2002 Ph.D. Anthropology, University of California, Berkeley.
1990 MA. Anthropology, University of California, Berkeley.
1989 MA. Maritime History and Underwater Archaeology, East Carolina University.
1970 BS. Business Administration, St. Mary's College, Moraga, California.

EXPERIENCE:

1993 - Present: *Vice President/Principal Investigator, William Self Associates.*

As Principal Investigator, responsibilities include supervision of 30 technical staff in cultural resource management studies including: prehistoric, historic, and maritime archeological field survey, archival research, testing and data recovery, artifact cataloging and lab analysis, architectural history and architectural documentation, and state and federal historic preservation consultation. Recent Principal Investigator experience includes:

- Victorville-2 Hybrid Power Project. Directed project surveys and investigations, preparation of technical studies and reports; responsible for budget preparation and management, staffing, client coordination. Coordinated with CEC on responses to data requests.

- Tucson Pipeline Replacement Project, involving coordination with numerous state agencies and tribes. Pipe project crossed several significant archaeological sites, including Tumamoc Hill, a National Historic Landmark site and Native American Traditional Cultural Property. Coordinated survey, site recoding and assessment, data recovery, and reporting.

- City of Oakley Cypress Corridor Project. Responsible for budget preparation and management, staffing, agency and client coordination, direction of technical studies, and report preparation for City of Oakley's annexation of approximately 2,600 acres.

- Kinder Morgan Energy Partners Bay District Archaeological Survey and Sensitivity Project. Responsible for designing and implementing archaeological survey and analysis of sensitivity of 300 mile gas pipeline system.

- Water Transit Authority Oyster Point Ferry Terminal. Responsible for budget preparation and management, staffing, agency and client coordination, direction of technical studies, and report preparation.

- 300 Spear Street Project, San Francisco, CA. Responsible for budget preparation and management, staffing, SFERO and client coordination, direction of technical studies, data recovery (including the recovery of a 19th century whaling ship) and report preparation.

- Carquinez Straits Bridge Replacement and Seismic Retrofit Project. Responsible for design and implementation of maritime archaeological research associated with replacement and seismic retrofit of the Carquinez and Benicia bridges. Project included archival research, remote sensing (side scan sonar, sub-bottom profile, remote ground-truthing), underwater ground truthing and data recovery, and interpretation.

- San Rafael Bridge Seismic Retrofit Project. Responsible for design and implementation of maritime archaeological research associated with seismic retrofit of the San Rafael Bridge.

Project included archival research, remote sensing (side scan sonar, sub-bottom profile, remote ground-truthing), underwater ground truthing and data recovery, and interpretation.

- San Francisco-Oakland Bay Bridge East Span Replacement Project. Responsible for design and implementation of maritime archaeological research associated with SFOBB replacement project. Project included archival research, remote sensing (side scan sonar, sub-bottom profile, remote ground-truthing), underwater ground truthing and data recovery, and interpretation.

- Four Seasons Hotel Project, San Francisco - Archaeological testing, construction monitoring, and data recovery for 32-story hotel, residential, commercial complex, Market Street, San Francisco.

- Marine Archaeological Survey of the Proposed Southhampton Shoal Ship Channel. Consulted on remote sensing data collection, interpreted findings and prepared archaeological section of project's final report

- Marine archaeological survey of portions of the J. Baldwin Ship Channel. Consulted on remote sensing data collection, interpreted findings and prepared archaeological section of project's final report.

- Muni Metro Turnback Project. Responsible for technical direction and administration on multi-year, $250M construction project in San Francisco requiring archeological monitoring, artifact retrieval and data recovery through 19th Century historic fill and maritime (vessel) remains. Directed activities of multiple archeological monitors, responsible for artifact analysis and reporting, agency consultation.

- San Francisco Muni Railway Mid-Embarcadero Roadway/F-Line Extension Project. Responsible for archaeological testing, construction monitoring, data recovery for renovation and realignment of Embarcadero roadway from Folsom Street to Broadway, San Francisco.

- One Embarcadero South Project. Responsible for excavation, documentation, and interpretation of structural remains of Tichenor's Ways, earliest marine railway in California.

- 1045 Mission Street. Responsible for archaeological testing, construction monitoring, and data recovery for multi-story residential complex in South of Market area, San Francisco, California.

1999 - Present: *Research Fellow, Archaeological Research Facility, University of California, Berkeley*

1997 – Present: *Adjunct Professor, Department of Anthropology and Sociology, Saint Mary's College of California.*

1990 – Present: *Director, Institute for Western Maritime Archaeology, Archaeological Research Facility, University of California, Berkeley.*

2005 – 2009: *Member, National Park Service Historical Landmarks Committee*

SELECTED PUBLICATIONS

- Principal author: *Archaeological Documentation of Two Submerged Obstructions in Clipper Cove, San Francisco, California.* Prepared for the City and County of San Francisco on behalf of Treasure Island Enterprises

- Principal author: *Report on the Documentation and Assessment of Four Obstructions to Navigation in the Sacramento River, Sacramento and Yolo Counties, California.* Prepared for the California State Lands Commission, Sacramento, California.

- Principal author: *Evaluation of Navigation Hazards in the Sacramento River, Sacramento and Yolo Counties.* Prepared for the California State Lands Commission.

- Principal author: *Report of Archival and Historic Literature Research on Select Obstructions to Navigation in the Sacramento River, Sacramento and Yolo Counties, California.* Prepared for the California State Lands Commission.

- Principal Author: Preliminary Report of the Maritime Archaeology Study for the San Francisco Bay Rocks Removal Project. Prepared for Sea Surveyor, Inc., Benicia, CA.

- Principal author: Archaeological Testing and Monitoring Program. Mid-Embarcadero Surface Roadway and F-Line Extension Project. Final Report. Prepared for Don Todd Associates, San Francisco, California.

- Principal author: Carquinez Straits Project, Maritime Archaeology. Report of Two Remnant Wharf Features East of the Benicia-Martinez Bridge. Prepared for the California Department of Transportation District 4, Oakland, California.

- Principal author: Carquinez Replacement Bridge Project. Report of Potential Construction Impediments Observed in the Maritime Archaeology Remote Sensing Survey and Ground Truthing Operations. Prepared for the California Department of Transportation District 4, Oakland, California.

- Principal author; San Francisco-Oakland Bay Bridge East Span Seismic Safety Project Addendum Archaeological Survey Report – Maritime Archaeology. Prepared for the California Department of Transportation District 4, Oakland, California

- Principal author; 1045 Mission Street Apartment Project, Archaeological Testing, Monitoring, and Data Recovery Report. Prepared for Emerald Fund, San Francisco, California.

  Principal author; Historic Archaeology of Tichenor's Ways, A Mid-19th Century Marine Railway and Drydock. Prepared for U.S. Department of Housing and Urban Development.

- Principal author; Archaeological Monitoring and Data Recovery Report. One Embarcadero South Project. Prepared for Urban West Associates, San Diego, California.

- Principal author; Archaeological Remote Sensing Survey and Ground Truthing Assessment. San Francisco-Oakland Bay Bridge East Span Seismic Safety Project. Pile Installation Demonstration Project Area of Potential Effect. Prepared for Parsons Brinckerhoff, San Francisco, California.

- Principal author; Yerba Buena Tower Project: Archaeological Testing, Data Recovery, and Monitoring Report. Prepared for Millennium Partners, San Francisco, California.

PRESENTED PAPERS AND LECTURES

- *"...so many ghastly piles of marine debris"*: Discovery of the whaling ship *Candace* in downtown San Francisco. Paper presented at 40th Annual Meeting of the Society for California Archaeology, Ventura, CA. 2006

- Systematic Surveying in Piecemeal Fashion: Tales of Research in San Francisco Bay. Paper presented at the 36th Conference on Historical and Underwater Archaeology, Kingston, Rhode Island, 2003.

- The Elusive *Il'men* -- Searching for one of California's Earliest Known Shipwrecks. Paper presented at the 26th annual conference of the North American Society for Oceanic History, Honolulu Hawaii, 2002.

- Archaeology as Prologue. Paper presented at the 34th Conference on Historical and Underwater Archaeology, Long Beach, CA; 2001.

- Tichenor's Ways: A 19th Century Shipyard in Downtown San Francisco. Paper presented at the 32rd Conference on Historical and Underwater Archaeology, Quebec, Canada 2000.

- An Archaeological Investigation of the Fort Ross Industrial Complex and Shipyard. Paper presented at the 32nd Conference on Historical and Underwater Archaeology, Salt Lake City, Utah; 1999.

- Forge and Falseworks: Preliminary Investigations of the Ross Colony's Industrial Complex. Paper presented at the 33rd Annual Meeting of the Society for California Archaeology, Sacramento, California; 1999.

- Russian Shipbuilding in Spanish California. Paper presented at the Annual Meeting of the North American Society for Oceanic History, San Diego, California; 1998.

- Investigating the Russian Shipbuilding Enterprise in Spanish California. Paper presented at the 32nd Annual Meeting of the Society for California Archaeology, San Diego, California; 1998.

- Sheep in the Tunnel: A Gold Rush-Era Ship Beneath Your Feet. Paper presented at the 31st Annual Meeting of the Society for California Archaeology, Rohnert Park, California; 1997.

- What Have We Here? The Rediscovery of Nelson's Mound 259. Paper presented at the 31st Annual Meeting of the Society for California Archaeology, Rohnert Park, California; 1997.

- *Ringleader* and *Sagamore*: A Report on the Tentative Identification of Two Nineteenth-Century Shipwrecks in San Pablo Bay. Paper presented at the 31st Annual Meeting of the Society for California Archaeology, Rohnert Park, California; 1997.

- Ship in the Tunnel: A Time Capsule for the Gold Rush. Lecture presented to the San Francisco Historical Society, June 11, 1996.

- Searching for the *Il'men*: Preliminary Field Survey. Paper presented at the 29th Annual Meeting of the Society for California Archaeology, Eureka, California; 1995.

MEMBERSHIPS

Memberships:

- Institute for International Maritime Research
- North American Society for Oceanic History
- Society for Historical Archaeology
- Society of American Anthropologists
- Society for California Archaeology
- Member, National Park Service Historical Landmarks Committee

PROFESSIONAL REGISTRATION:

Register of Professional Archaeologists (RPA) Certification since 1999.

Russell Kingsley, CPP

Years Experience: 23

Technical Specialties

- Air Permitting
- Process Engineer
- Environmental Auditing
- Environmental Compliance

Professional History

- ENSR International, California
- PGP Industries, Inc., California
- Kwikset Corporation, California

Education

- BS (Chemical Engineering) University of California, San Diego

Professional Registrations and Affiliations

- Certified Permitting Professional, South Coast Air Quality Management District (SCAQMD), California

Representative Project Experience

Primary responsibilities include air quality compliance for manufacturing and other industrial facilities, air permitting, air compliance evaluations and audits, health risk assessments, air quality reports, risk management plans, Toxic Release Inventory (TRI) reporting, and general compliance assistance. Experienced in a variety of emission estimation methodologies. Selected projects include:

Inland Energy, CEQA EIR for Victorville 2 Power Project, California. Prepared the hazardous materials section of the California Energy Commission (CEC) Application for Certification (AFC) for the Victorville 2 hybrid power project which includes a conventional gas turbine-based combined cycle power plant with a 50 megawatt (MWe) solar collector/concentrator power plant. Continuing to support the project by evaluating the proposed mitigation measures, and preparing responses to public comments on behalf of the Mojave Desert Air Quality Management District (MDAQMD) for the Determination of Compliance for the project air permit.

Southern California Edison, CEQA IS/MND for Four Peaker Power Plants, California. Project Team Leader for the preparation of four California Environmental Quality Act (CEQA) Initial Study / Mitigated Negative Declarations (IS/MND) for four peaker power plants in Southern California. The peaker plants employed 45 MWe

combustion turbines. In addition to project management, prepared the project descriptions, air quality, hazardous materials, and energy sections of the ISs, coordinated the use of five subcontractors, and provided overall quality control for the project. The four IS/MNDs were prepared in under three months from project kick-off, and certified by the SCAQMD, the lead agency, six weeks following submittal.

Beacon Solar LLC, CEQA EIR and Air Permit Application for Beacon Solar Energy Project, California. Prepared the air quality and hazardous material sections of a CEC AFC and the air permit application for a 250 MWe solar power plant in Southern California. Work involved evaluation of the engineering design of the solar collector/concentrator plant design to determine hazardous material usage, air emission points and air emission estimates, in addition to document preparation.

Confidential Client, Air Permit Application for Solar Energy Power Plant, Nevada. Prepared the air permit application for a 180 MWe solar energy plant in Clark County, Nevada. Work involved evaluation of the engineering design to determine emission points, preparation of the process description, preparation of air emission estimates and regulatory compliance evaluation. The application has not yet been submitted because the project is currently on hold.

Woodside, Land Use Permit Application for LNG Terminal, California. Prepared the hazardous materials section of the Land Use Permit application for the proposed Woodside Liquified Natural Gas (LNG) Deepwater Port terminal. The LUP is the application that initiates the CEQA review; ENSR's approach was to supply a CEQA-equivalent application to the State Lands Commission. Work included evaluation of hazardous material impacts from construction and operation of both on-shore and offshore facilities. Also supported the Project by contributing to the Best Available Control Technology analysis for the shipboard equipment, and quality control review of the air permit applications.

Constellation Power, California. Conducted a comprehensive review of current air permit requirements in support of certification of the initial Title V application for the High Desert Power Project (HDPP). The review included the risk management plan as well as Continuous Emissions Monitoring System (CEMS) data, source tests, and other requirements of the MDAQMD and EPA Prevention of Significant Deterioration (PSD) permits. Other assistance at this facility has included preparation of MDAQMD air permit applications for the fire water pump and an emergency generator.

Constellation Power, California. Conducted the air quality components of the comprehensive environmental audits of numerous power plant facilities, including three wood burning facilities and three coal/pet coke fueled facilities in California and a coal-fired facility in Utah.

Kings River Conservation District Peaker Plant, California. Prepared the Hazardous Material Business Plan and Storm Water Pollution Prevention Plan (SWPPP) and assisted in the preparation of the Spill Prevention Control and Countermeasures (SPCC) plan and California Accidental Release Prevention (CalARP) Risk Management Plan (RMP) for the KRCDPP in Sacramento, California.

Reliant Energy, Nevada. Assisted in the preparation of the Nevada Chemical Accident Prevention Program (CAPP) RMPs required for the aqueous ammonia storage and handling associated with the SCR emissions control systems at the Copper Mountain and Big Horn combined-cycle power plant facilities in Nevada.

FPL Energy, California. Conducted a comprehensive review of current air permit requirements in support of certification of the initial Title V application for the Blythe Energy Project (BEP). Reviewed the RMP, as well as CEMS data, source tests, and other requirements of the MDAQMD and EPA PSD permits.

Elk Hills Power, LLC, California. Assisted in the preparation of the initial CalARP RMP required for the aqueous ammonia storage and handling associated with the Selective Catalytic Reduction (SCR) emissions control system at the Elk Hills combined-cycle power plant in the San Joaquin valley.

Covanta Stanislaus, Inc. Conducted a comprehensive audit of air programs and permits at Covanta's waste-to-energy facility in the San Joaquin Valley in California.

Honolulu Resource Recovery Venture, Oahu, Hawaii. Conducted a comprehensive audit of air programs and permits at Covanta's waste-to-energy facility in Hawaii.

Sithe Energy, San Diego, California. Performed audits of three facilities located at military installations in the San Diego area. The facilities are small (25 MWe) cogeneration facilities utilizing combustion turbines for steam and power generation.

Los Angeles Department of Water and Power, Los Angeles, California. Evaluated air impacts for the IS and EIR for a project to install six peaker turbines and SCR on two existing boilers. The SCAQMD was the lead agency for the EIR. Also assisted with revisions to the permit limits related to commissioning and startup emissions for the Haynes facility.

RAMON E. NUGENT, P.E. (TX)

Director, West Coast Office

Acentech

EDUCATION

M.B.A., California Lutheran University, Thousand Oaks, California, 1996
B.S., Engineering Science, Iowa State University, Ames, Iowa, 1969

TRAINING

Federal Traffic Noise Model
Noise Control for Buildings, Manufacturing Plants, Equipment, and Products
Transit Noise and Vibration Impact Assessment
Caltrans Traffic Noise Assessment Overview
CadnaA Computer Aided Noise Abatement

PROFESSIONAL POSITIONS

Supervisory Consultant, Acentech Inc., 1989 – Present
Senior Consultant, Bolt, Beranek and Newman Inc., 1987 – 1989
Senior Environmental Engineer, Bechtel Environmental Inc., 1973 – 1987
Research Engineer, Fisher Controls Company, 1969 – 1973.

REGISTRATION AND PROFESSIONAL SOCIETIES

Registered Professional Engineer, Texas
Institute of Noise Control Engineering Associate
Association of Environmental Professionals
American Association of Airport Executives
American Public Transportation Association
National Council of Noise Consultants
Society for Marketing Professional Services

PROFESSIONAL RESPONSIBILITIES AND PROJECTS

Mr. Nugent is the identified Project Manager for the noise and vibration analysis of the proposed Ritter Ranch Substation Project. Mr. Nugent has been Project Manager for Acentech on industrial, transportation, community, and environmental noise studies. Mr. Nugent has conducted numerous CEQA and NEPA environmental studies for transportation projects (airport, highway, street, light and heavy rail), industrial facilities, and urban and suburban developments. His wide range of experience includes nuclear power plants, fossil fuel power plants, cogeneration plants, transformer stations and refineries. These projects included noise and vibration monitoring, impact analysis of facility construction and operation and mitigation monitoring and preparing noise studies in accordance with CEC Siting Guidelines.

Noise impact analyses have included urban, residential, rural, and wilderness areas, considering the effects of noise on both human and wildlife habitats. He has conducted computerized noise propagation studies involving complex mountainous terrain considering the effects of reflection, refraction, and diffraction of sound. He has published papers discussing noise and vibration considerations in zoning and land use planning.

RECENT REPRESENTATIVE PROJECTS:

Victorville 2 Hybrid Power Project, Victorville, CA — Mr. Nugent was Noise Studies Task Manager of in support of the preparation of permitting in accordance with CEC Siting Guidelines. The effort included baseline noise monitoring, noise modeling, and preparation of technical reports. Work was performed in 2006/2007.

Miramar Energy Center in San Diego County— Mr. Nugent was Noise Studies Task Manager for the performance testing of the peaking unit to assess the compliance with the property line noise level requirements. Work was performed in 2005.

SDG&E Otay Mesa Power Purchase Agreement Transsmission Project PEA — Mr. Nugent was asked to respond to comments received from the reviewers regarding construction noise impacts. Work was performed in 2004.

SDG&E's New Sycamore to Miramar 69 kV Line, TL 6942 PEA — Mr. Nugent was Noise Studies Task Manager for the preparation of the Technical analysis of audible noise impacts produced by electrical transmission lines due to the corona effect. Work was performed in 2005.

SDG&E's Proposed East County Substation & 69 kV Transmission Loop — Mr. Nugent was Noise Studies Task Manager for the preparation of the Technical analysis of audible noise impacts produced by transformer stations, construction of electrical facilities and corona noise from electrical transmission lines. Work was performed in 2008.

Proposed Devers–Mirage System Split Project PEA— Mr. Nugent was Noise Studies Task Manager for the preparation of the PEA noise sections for two new 115 kilovolt (kV) transmission line segments and numerous connections and facility modifications associated with splitting the SCE Devers-Mirage 115kV system in Palm Springs and Thousand Palms, California into two separate, radial 115kV systems.. Work was performed in 2006/2007.

On-Call Substation Noise Analysis — Mr. Nugent was Noise Studies Task Manager for the noise impact analysis associated with proposed transformer changes at the following SCE substations:

Substation	Date	Substation	Date
Alder	1999	Indian Wells	2000
Barre	2000	Layfair	1998
Bryan	1999	Lockheed	1998
Colonia	2000	Moraga	1999
Corona	1999	Nogales	1999
Crater	2000	Niguel	1999
Declez	1998 & 2000	Ontario	2000
Estrella	2000	O'Neil	1999
Firehouse	2000	Pedley	1999
Hanford	2000	Railroad Canyon	2000
Highland	1999	Rio Hondo	2002
Holiday	2000	Royal	2000
Huston	2000	Saugus	2001
		Thousand Oaks	1998

JOHN D. WILSON, PRINCIPAL

REGISTRATION:

Civil Engineer, State of California, License No. C 33695
Traffic Engineer, State of California, License No. TR 1192

CAPABILITIES:

Mr. Wilson is a civil and traffic engineer with over 30 years of experience in the areas of civil, traffic and transportation engineering. He has served in the capacity of principal in charge or project manager for a variety of traffic, and transportation related projects for both public and private clients. He has been responsible for all aspects of traffic studies including circulation analyses/ plans, impact analyses, the development and design of mitigation measures, and the generation of project reports. He has extensive experience preparing and presenting plans to neighborhood groups/ associations, public agencies, and elected bodies.

EXPERIENCE RECORD:

At Wilson Engineering, Mr. Wilson is responsible for all traffic and transportation related projects. Mr. Wilson has been responsible for the preparation of traffic and transportation analyses for a number of Applications for Certification of power plants throughout the State of California. He has provided both written and oral testimony to the CEC as part of the certification process. Analyses have been prepared for generation facilities proposed in the Southern California Desert (e.g., Victorville 2 Hybrid Power Project, Beacon Solar Energy Project), Central Valley, and Sacramento areas. He has also completed numerous access and circulation studies for a variety of projects throughout the State of California allowing him to develop ongoing working relationships with a variety of agencies, local municipalities, and private developers. As a consultant to the San Francisco Transportation Authority, he has prepared traffic analyses for Strategic Analysis Reports (Technical Informational Reports to the Board of Supervisors) for the evaluation of Central Freeway Replacement Alternatives, demolition of a second portion of the Central Freeway, and for the evaluation of a one-couplet in the South of Market Area. He has been responsible for the design and preparation of PS&E for a variety of infrastructure (roadway and intersection) projects in Mission Bay. He was recently responsible for a major series of traffic signal improvements for the Mission Bay Development in San Francisco which included interfacing with the Municipal Light Rail System, interconnection, and variable message signing in the vicinity of Pac Bell Park. He has completed traffic impact studies for U.S. Postal facilities throughout California and Washington which typically included presentations to local governing agencies and neighborhood groups. He has completed traffic impact studies for industrial or office developments in the Cities of Oakland, Vacaville, Stockton, Hayward, Santa Clara, and Palo Alto; commercial developments in the Cities of Oakland, Milpitas, San Jose, Morgan Hill, and Vacaville; and residential developments in the Cities of Novato, Pinole, Hayward, San Ramon, and Redwood City. Mr. Wilson has extensive experience working with Caltrans Staff having completed projects in almost all Districts. Projects involving Caltrans have ranged from traffic impact studies to the design of highway widening to design of access improvements and installation of traffic signals.

EDUCATION:

M.S. Transportation Engineering, Cal Poly, San Luis Obispo, CA, 1974

Thomas Egan

Senior Ecologist

Professional summary
Mr. Egan is a Senior Ecologist with a strong background in natural resource management who specializes in arid lands project planning and coordination, environmental analysis, and regulatory permitting. Well versed with state and federal laws pertaining to natural resource management in California, Nevada, and Arizona, Mr. Egan has considerable experience in application of the California and National Environmental Quality Acts, as well as all executive orders related to conservation.

Education
Bachelor of Science Degree in Wildlife Management, Humboldt State University, CA, 1984. (Emphases in Animal Behavior, Botany, and Range Management; with academic minors in Biology, Natural Resources, and Psychology)

Additional training

Endangered Species Act Consultation	Rare Plant Inventory and Monitoring
Desert Lands Reclamation/Rehabilitation	Plant Community Health Assessment
Desert Tortoise Survey and Report Writing	Mine Assessment for Bats
Neotropical Migratory Bird Management	Riparian Habitat Assessment Instructor
Desert Bighorn Sheep Habitat Assessment	Mojave Ground Squirrel Habitat Assessment
Wildlife Survey, Sampling and Monitoring	California Scientific Collection Permit
Basic 32 Fire Suppression Training	Resource Advisor Training and Experience

Memberships

California Native Plant Society	Desert Tortoise Council
California Exotic Pest Plant Council	The Wildlife Society

Location
Riverside, California

Languages
English (native)

Summary of core skills
- California Environmental Quality Act & National Environmental Policy Act (NEPA) Processes
- Environmental Assessment, Environmental Impact Statement Preparation Skills
- Endangered Species Act, Clean Water Act, Federal Land Policy & Management Act and Other Natural Resource Conservation Legislative Mandate Permitting Knowledge
- Wildlife Management and Habitat Assessment Training, Knowledge and Experience
- Wildlife Species Survey Techniques, Inventory/Monitoring System Knowledge
- Revegetation, Weed Control, Site Reclamation, Natural Resource Conservation Plan Design

Areas of expertise

- Ornithology
- Mammalogy
- Herpetology
- Ichthyology
- Botanical surveys
- Wetland delineation
- Biological Assessment Preparation
- NEPA documentation
- Biological monitoring
- Natural resources management plans
- Fire management plans
- Wildland erosion control planning
- Native plant community restoration
- Analyzing effects of military training or similar land use (e.g. off-road vehicle use) on natural resources and using this information to predict ecological trends

Detailed core skills

Mr. Egan is a Senior Ecologist with a strong natural resource management background who specializes in arid lands project planning and coordination, environmental analysis, and regulatory permitting. Biological and botanical site assessment skills form the cornerstones of his applied-science background, which is based on a 17-year career as a Wildlife Biologist with the U.S. Forest Service (USFS) and U.S. Bureau of Land Management (BLM), in addition to his many years of working as a private biological consultant. Well versed with state and federal laws pertaining to natural resource management in California, Nevada, and Arizona, Mr. Egan has considerable experience in application of the California/National Environmental Quality Acts and the Clean Water Act, as well as all executive orders related to conservation.

As an arid lands ecologist, Mr. Egan is quite knowledgeable about best management practices and planning for wildfire minimization and suppression, in addition to riparian area, streamside, and wetland management. This includes natural resource monitoring and management, application of Clean Water Act compliance procedures, and provisions of streambed alteration permitting commonly applied in the Southwest. As a trained Riparian-Wetland Proper Functioning Condition Assessment Instructor, Mr. Egan has also advised numerous resource managers and landowners involved with arid land riparian issues throughout the western U.S. He is also knowledgeable about the California Fish and Game Code; the consultation and conference duties of the California and Federal Endangered Species Acts; and specific parameters of the landmark Federal Land Policy and Management Act. This regulatory permitting knowledge served him well as the BLM Threatened and Endangered Species and Riparian Specialist for the Mojave Desert, where he finalized both individual action and programmatic consultations.

On the technical arid lands expertise side, Mr. Egan has written numerous rare species accounts and participated in several regional conservation planning efforts for both public and private lands. He has written technical portions of environmental assessments and impact statements for various Mojave Desert, Great Basin, and eastern Klamath Mountain locales, which have involved detailed affected environment descriptions, use consequence estimations and mitigation plans. He also has extensive experience in developing coherent, collaborative wildlife conservation goals and in defining program priorities to achieve both multiple use and conservation objectives. His fields of specialization include habitat improvement, wildfire suppression and rehabilitation, rangeland livestock grazing, realty, and land conveyance, transportation planning, military coordination, forest management and recreational use.

Collaborative involvement on past arid lands environmental planning efforts include the Northern and Eastern Mojave and West Mojave Desert Plans, as well as the Northern and Eastern Colorado Desert Plan. Further, Mr. Egan has designed and implemented arid lands rare plant surveys; conducted similar desert tortoise, raptor and bat inventory work; and assessed desert pupfish, Mohave ground squirrel and desert bighorn sheep habitat quality. He has also implemented several large-scale arid land habitat restoration efforts. He has written numerous papers, reports, and plans about habitat restoration, weed control, and wildfire rehabilitation, as well as participated in one of the largest vehicle route designation planning projects for public lands in the United States.

ALICE E. KARL, Ph.D.

ALICE E. KARL & ASSOCIATES

P.O. Box 74006
Davis, California 95617
Phone: (530) 666-9567 FAX: (530) 666-9567
e-mail: heliophile@mindspring.com

Alice has been an environmental consultant since 1978 and is the principal for the firm Alice E. Karl & Associates, a certified woman-owned business. She has an extensive knowledge of arid ecosystems, having worked continually in the southwestern deserts for 27 years. She has also completed biological surveys in the coastal ranges of California and in the past four years has expanded her work into the Central and San Joaquin valleys. She is a highly experienced botanist, herpetologist, small-mammalogist, and a recognized desert tortoise authority. Her subject areas of expertise include the practical and theoretical aspects of conservation biology, plant/animal community ecology, and restoration ecology. She holds a Federal handling permit for desert tortoises and a California scientific collecting permit for the listed desert tortoise and Shasta salamander as well as general collection of vertebrates.

In addition to being an accomplished field biologist, crew chief, and project manager, Alice has assisted in developing agency protocols for special-status species. Agency coordination is a critical component of her projects and she works with agency biologists to modify protocols as necessary in order to achieve the goals of both the project proponents and resource agencies in the most efficient and scientifically credible manner. Similarly, her interpretation of survey results is conservation-oriented within the context of developing practical and feasible mitigation measures for project development. As such, she has a good working relationship with government agencies and is considered a pragmatic and reasonable resource consultant by project proponents.

Alice collaborates with leading biologists and consultants in other fields (e.g., permitting, CEQA, NEPA) in order to conduct reliable and economically efficient projects. Such projects include biological documents, field surveys and research. She is the primary author or co-author for several Biological Assessments, Habitat Conservation Plans, the biological portions of EIR/S's and AFC's. She has been a contributor to several area-wide plans (e.g., Clark County Habitat Conservation Plan, West Mojave Plan, North and East Colorado Management Plan) and agency protocols (e.g., U.S. Fish and Wildlife Service sampling protocol for desert tortoises). Development-related field surveys have included species presence/impacts assessments and construction/mitigation monitoring for mining projects, pipelines, fiberoptics lines, transmission lines, waste facilities, and expansions of existing developments and facilities. These have been conducted on public lands, private and state-owned lands and on military installations. She regularly organizes and leads large crews and has trained numerous construction crews and monitoring groups. Research has included long-term and geographically extensive projects on desert tortoise reproduction, physiology, population viability, distribution and habitat relationships, and on vertebrate community relationships. Radiotelemetry has been an integral part of her research for the last fourteen years.

ENDANGERED SPECIES SURVEYS

HABITAT RESTORATION, REVEGETATION PLANS

IMPACTS ASSESSMENTS and MITIGATION DEVELOPMENT

EIR/Ss, AFCs, BAs, EAs, HCPs, RECLAMATION PLANS

RESEARCH, MITIGATION STUDIES

PRESERVE DEVELOPMENT and DESIGN

WETLANDS DELINEATION

In addition to broad experience in terrestrial ecology, specific areas of expertise include:

COMPLIANCE DOCUMENTS

- Habitat Conservation Plans (HCPs) and Biological Assessments (BAs) for FESA compliance and CESA compliance (2081s)
- Author of biological sections for numerous EIS/Rs, EAs, AFCs, county reclamation plans (SMARA compliance), 1603 Agreements, Section 404 permits

SPECIAL-STATUS PLANTS and REVEGETATION

- Principal botanist for numerous surveys of special-status plants in the Mojave and Colorado deserts, the Tehachapi Mountains and the Central and San Joaquin valleys
- Extensive knowledge of Mojave and Colorado Desert flora and habitats
- Revegetation specialist for varied restoration sites, especially mine sites
- Wetlands delineation

DESERT TORTOISE

- A recognized desert tortoise authority, with over 27 years experience studying desert tortoises in California, Nevada, Utah, and western Arizona; habitat specialist
- 2 advanced degrees involving desert tortoises
- Holds own handling and research permits from the U.S. Fish and Wildlife Service and the California Department of Fish and Game
- Designed and implemented one of the largest and longest desert tortoise research projects to date - approximately 130 tortoises were telemetered for 10 years to study reproduction, growth, home range, burrow use, dispersal within the context of forage production, size and gender
- Instructor for Desert Tortoise Council Technical Workshops and telemetry use; train construction employee groups and tortoise monitors for construction projects
- Over 25 Bureau of Land Management (BLM)-type trend plots or other mark-recapture plots for population studies and >3000 transects to assess relative densities
- Impacts assessment, mitigation development - numerous projects
- Construction monitoring and development of monitoring protocol
- Invited contributor to development of methodologies for U.S. Fish and Wildlife Service (USFWS) survey protocol
- A primary reviewer of USFWS original listing package for desert tortoises
- Biological contributor to Clark County Habitat Conservation Plan, West Mojave Plan, and Northern and Eastern Colorado Coordinated Management Plan

OTHER WILDLIFE

- Extensive knowledge of southwestern reptile and amphibian fauna
- Extensive small-mammal (rodents) trapping studies in California, Nevada and Arizona, including Mohave ground squirrel and other special-status rodents.
- Survey, research, and permitting experience with the following listed species: Valley elderberry longhorn beetle, Shasta salamander (permitted), Tehachapi slender salamander, San Joaquin kit fox
- Burrowing owl surveys and mitigation
- Numerous bird surveys in desert habitat.
- Instructor, Mojave ground squirrel survey techniques workshop (CHIEF) for the California Department of Fish and Game and The Wildlife Society.

BUSINESS

- Certified Woman-owned Business
- Collaborates with other environmental firms on an as-needed basis to manage comprehensive environmental project

EDUCATION

Ph.D., Ecology - University of California, Davis. January 1998. Dissertation: Reproductive strategies, growth patterns, and survivorship of a long-lived herbivore inhabiting a temporally variable environment.

M.S., Biology - California State University, Northridge. 1982. Thesis: The distribution, relative densities, and habitat associations of the desert tortoise, *Gopherus agassizii*, in Nevada.

PROJECT LIST

PROJECT MANAGER and/or SOLE/LEAD BIOLOGIST:

Military Projects

Fort Irwin Expansion Project, Barstow, California. 2002-2003. Authored all desert tortoise sections for the Fort Irwin Expansion Biological Assessment. Contracted to Charis Corporation, Temecula, California.

Fort Irwin Expansion Project, Barstow, California. 1998-2003. Developed and tested methods to quantitatively assess population levels and impacts to desert tortoises from proposed land expansion. Included mark-recapture plots (1998, 2001, 2002) and new methodology for region-wide, quantitative population assessments. Consultant to Charis Corporation, Temecula, California (1999-2002) and Chambers Group, Irvine, California (1998).

Desert Scimitar (U.S. Marine Corps), 2001. BA for training exercise from Colorado River to *Twentynine Palms Marine Corps Air Ground Combat Center*

Twentynine Palms Marine Corps Air Ground Combat Center (MCAGCC), Twentynine Palms, California. 1996-7. Consultant on desert tortoise issues for housing area expansion. Consultant to Merkel and Associates, San Diego, California.

U. S. Air Force MX Missile Project, Coyote Springs Valley, Nevada. Summer, 1981. Intensive field survey (300 transects) of potential facility site to determine the relative densities of the desert tortoise. For Biosystems Analysis, Inc., San Francisco, California.

Miscellaneous Projects

Hyundai Motor America Mojave Test Track Project. Spring 2003 - continuing. Designed and am conducting desert tortoise translocation project. Also ssisted in project permitting, mitigation lands analysis, tortoise clearances. Consultant to Hyundai America Technical Center, Irvine, CA.

San Diego Water Authority, 2002 - continuing. Technical consultant for biological issues relating to Quantification Settlement Agreement water transfer on Colorado River and All American Canal Lining Project. Consultant to Greystone Environmental Consultants, Sacramento, California.

Los Angeles County Sanitation District Palmdale Water Reclamation Plant, Palmdale, California. 2003. Agency meetings, survey protocol development and surveys for desert tortoise presence and impacts; surveys for burrowing owl; Mohave ground squirrel trapping; habitat assessment for special-status plants. Consultant to Environmental Science Associates, Oakland, CA.

Los Angeles County Sanitation District, Lancaster, California. 2002. Surveys of proposed pipeline for special-status plants and animals. Special-status plants and animals of greatest concern included desert tortoise, Mohave ground squirrel, burrowing owl, alkali mariposa lily, Lancaster milk-vetch. Consultant to Los Angeles County Sanitation District, Whittier, California.

Burlington-Northern Santa Fe Landfarm Project, Barstow, California. 2001-2003. Assessment of desert tortoise impacts , mitigation development, agency coordination for landfarm closure. Consultant to TRC Environmental Solutions, Irvine, California.

Central Washington University and Cal-Tech, Barstow, California. 1994. Monitoring trenching and closure activities for Endangered Species Act compliance (desert tortoises) on Emerson Fault research project. Consultant to Dr. Charles Rubin, Central Washington University.

U.S. Geological Survey, Landers, California. 1993 and 1994. Monitoring trenching and closure activities for Endangered Species Act compliance (desert tortoises) on Landers' Fault project. Consultant to Dr. David Schwartz, U.S. Geological Survey, Menlo Park, California.

Twentynine Palms Marine Corps Air Ground Combat Center (MCAGCC), Twentynine Palms, California. 1993. Tustin military base relocation project. Desert tortoise surveys to determine impacts and mitigation to tortoises from relocation of the base to MCAGCC . Authored several interim reports and co-authored final report to MCAGCC with Ogden Environmental, San Francisco, California

County of San Bernardino Medical Center, San Bernardino, California. September. 1990 General species inventory, and focused surveys for special-status plants and animals at three proposed sites for location of new medical center. Consultant to Higman-Doehle, Inc., Los Angeles, California.

Lake Minerals Corporation, Owens Valley, California. August, 1990 to present. Field surveys to determine tortoise presence at site of soda ash processing plant. Consultant to McClenahan and Hopkins Associates, Inc., San Mateo, California.

Del Webb Housing Development, Palm Desert, California. August, 1990. Assessment of tortoise habitat quality and likelihood of tortoise presence on proposed site. Consultant to Environmental Science Associates, Los Angeles, California.

Miller Housing Development, Palm Desert, California. 1990. Assessment of tortoise habitat and densities at proposed housing site; development of mitigation. For ERC Environmental, San Diego, California

Great Basin Unified Air Pollution Control District, Owens Lake Dust Control Project. December, 1989. Determined impacts to small mammal special-status species on sites proposed for disturbance. Consultant to McClenahan and Hopkins Associates, Inc., San Mateo, California.

Pacific Agricultural Holdings, Inc., Piute Valley, California. Fall, 1989. Field assessment of tortoise presence on site. Consultant to Pacific Agricultural Holdings, Inc., Fresno, California.

City of Rosamond, California, Expansion. Spring, 1989. Field survey of expansion site to determine impacts to sensitive flora, tortoises, and Mojave Ground Squirrel. Tortoise transects, live-trapping for diurnal rodents. Consultant to CWESA, Sanger, California.

Jet Propulsion Lab Site, Edwards Air Force Base, California. Fall and Winter 1988. Field determination of impacts to tortoises (transects, habitat analyses) from new facility siting. Consultant to WESTEC Services, San Diego, CA.

City of Ridgecrest Off-Road Vehicle Park, Searles Valley, California. January to March 1988. Field determination (transects, habitat analyses) of impacts to local desert tortoise

populations from siting of proposed park. Consultant to CWESA and Saito Associates, Fresno, California.

Bullhead City Airport Expansion, Laughlin, Nevada. October, 1987. Assessment of potential impacts to the desert tortoise from expansion of the Bullhead City Airport. Transects, habitat analyses. Consultant to Heron, Burchette, Ruckert, and Rothwell Washington, D.C.

U.S. Borax and Chemical Co., Boron, California. May, 1986. Field assessment of impacts to sensitive flora and fauna on proposed Cogeneration II facility. Consultant to Dames and Moore, Santa Barbara, California.

Propeace, Inc., Victorville, CA to Nevada. March, 1986. Assessment of impacts to wildlife and development of mitigation on proposed route of peace march in the Mojave Desert portion of route. Consultant to Propeace, Inc., Los Angeles, California.

Utilities and Transportation (Power Plants, Transmission Lines, Pipelines, Solar or Wind Facilities, Telecommunications, Railroads)

Southern California Edison Palo Verde-Devers II Transmission Line, Colorado River to Devers, California. 2002 - continuing. Surveys of proposed transmission line, in this segment, for special-status plants and animals; technical reports. Consultant to EPG Inc., Tucson, Arizona.

Blythe Energy Project, Blythe, California. 2000 - continuing. Designated biologist for proposed power plant and pipeline, with attendant duties including surveys; biological technical reports; B.A.; AFC assistance; development of mitigation (BRMIMP), monitoring, and education programs (WERP); implementation of mitigation measures; agency coordination; public hearings; and general document reviewer. Special-status plants and animals of greatest concern included desert tortoise, burrowing owl, Harwood's milk-vetch. Consultant to Greystone Environmental Consultants, Sacramento, California.

Desert Southwest Transmission Project (Imperial Irrigation District) Blythe to Niland and Blythe to Devers, California. 2000-2002. Surveys of multiple, proposed transmission lines for special-status plants and animals, technical reports, EIR. Consultant to Greystone Environmental Consultants, Sacramento, California.

Moapa Power Project, Las Vegas, Nevada. 2001. Initial surveys for special-status plants and animals for proposed power plant, transmission line and pipeline. Consultant to URS Corp, Santa Barbara, California.

Ocotillo Power Project, Palm Springs, California. 2000-2001. Surveys and biological technical report for special-status plants and animals for proposed power plant, transmission line and pipeline. Consultant to URS Corp, Santa Barbara, California.

Imperial Irrigation District, Blythe to Desert Center, California. 2000. Surveys for special-status plants and animals for proposed transmission line upgrade. Consultant to Greystone Environmental Consultants, Sacramento, California.

Enron Pastoria, Tejon Ranch (Bakersfield), California. 1999-2001. Surveys, biological technical report, and AFC preparation for special-status plants and animals for proposed power plant, transmission line and pipeline. HCP preparation for San Joaquin kit fox. Consultant for CEC hearings. Consultant to URS Corp, Santa Barbara, California.

Enron Antelope Valley, Victorville, California. 1999-2001. Surveys and biological technical report for special-status plants and animals for proposed power plant, transmission line and pipeline. Consultant to URS Corp, Santa Barbara, California.

PG&E Generating Company Harquahala Power Project, Toquop, Arizona. 1999-2000. Surveys and biological technical report for special-status plants and animals for proposed power plant and transmission pipeline. Consultant to URS Corp -Dames and Moore, Phoenix, Arizona.

Santa Fe Pacific Pipeline Company, Concord to Colton Pipeline, Mojave to Adelanto, California. Spring 1995. Surveys for special-status plants, desert tortoises, and Mojave Ground Squirrels (CHIEF protocol); project leader. Consultant to Woodward-Clyde Consultants, San Diego, California.

Harper Lake Company, San Bernardino County, California. 1994. Re-evaluation of and assistance with position paper on primary compensation measures for LUZ Harper Lake solar project. Consultant to ENSR, Fort Collins, Colorado.

Santa Fe Railroad Company, San Bernardino County, California. Spring 1994. (1) Monitoring construction for Endangered Species Act compliance (desert tortoises) on bridge upgrades and (2) educational presentation to Santa Fe employees. Consultant to Environmental Solutions, Inc., Walnut Creek, California.

Western Area Power Administration, Parker to Yuma, California. 1994. Led large crew to survey transmission line for determining impacts to desert tortoises, special-status plants, birds, amphibians, and mammals from future transmission line upgrades. Consultant to Woodward-Clyde Consultants, Denver, Colorado.

Mojave Pipeline Operating Company, Mojave Desert, California. 1993. Survey of five proposed compressor station sites for desert tortoise impacts. Consultant to CWESA, Sanger, California. Report submitted to Woodward Clyde Associates, Denver, Colorado.

Mojave Pipeline Operating Company, Kramer Junction, California. 1992-93. Led large crew to survey proposed pipeline from Kramer Junction to Inyokern for impacts to desert tortoises, special-status plants, and Mojave ground squirrels. Consultant to CWESA, Sanger, California. Report submitted to Woodward Clyde Associates, Denver , Colorado.

Lake Minerals-Vulcan Mine Railroad Upgrade, Searles, Indian Wells, and Owens Valley, California. 1991. Desert tortoise surveys along existing railroad to determine future impacts to desert tortoises from upgrade of railroad. Report submitted to McClenahan and Hopkins, San Mateo, California.

U. S Ecology Radioactive Waste Facility, Beatty, Nevada. August 1990. Survey of proposed power line route to radioactive waste site for impacts to tortoises.

Mojave Pipeline Project, Toquop, Arizona to Bakersfield, California. Spring, 1989-90. Lead botanist and wildlife biologist for species of concern in the Mojave Desert and Tehachapi Mountains portion of line. Included: field surveys and agency meetings; development of mitigation and relocation techniques for tortoises and training program for field observers; development of portions of Environmental Quality Assurance Program for construction phase. For CWESA, Sanger, California, and Woodward Clyde Consultants, Denver, Colorado.

Southern California Edison Victorville/Kramer High Voltage Transmission

Line. Spring 1990. Directed field study to determine tortoise abundance along proposed route. Consultant to ERC Environmental, San Diego, California.

AT&T Fiber Optics Cable Route, southern Nevada. 1990. Field survey of route to determine relative tortoise abundance, impacts on tortoise populations, and appropriate mitigation from burial of cable. Also involved relocation of tortoises and training of field personnel during construction. Consultant to ENSR, Fort Collins, Colorado.

Los Angeles Department of Water and Power Telecommunications Network Project, Los Angeles Basin, California. Winter and Spring, 1989. Field survey of proposed microwave facility sites in mountains surrounding the Los Angeles Basin to determine impacts to wildlife and botanical species of concern. Consultant to Higman Doehle, Inc., Los Angeles, California.

AT&T Fiber Optics Line, Victorville, California to Las Vegas, Nevada. Fall, 1988 to Winter, 1989. Field survey of route to determine relative tortoise abundance, impacts on tortoise populations, and appropriate mitigation from burial of cable. Also involved relocation of tortoises and training of field personnel during construction. Consultant to ENSR, Fort Collins, Colorado.

Luz Engineering, Kramer Junction and Harper Lake, California. Spring, 1987 to 1990. Led large crew to assess tortoise densities and habitat quality on relocation site for solar generating facility; density analyses and habitat assessments on facility expansion sites and relocation of tortoises during construction. Consultant to CWESA, Sanger, California, and ENSR, Fort Collins, Colorado.

Southern California Edison Palo Verde - Devers II HVDC Transmission Line, Colorado Desert, California. Spring, 1985, Spring, 1987, Spring, 1988. Field surveys and literature determination of impacts to special-status plants and wildlife and development of mitigation procedures along new transmission line route. Consultant to E. Linwood Smith and Associates, Tucson, Arizona.

U.S. Telecom, Banning to Blythe, California- May, 1986 - Field assessment of impacts to special-status plants and fauna along proposed route. Consultant to E. Linwood Smith and Associates, Tucson, Arizona.

Los Angeles Department of Water and Power, Intermountain Power Project (IPP), Nevada-Utah. July, 1982 to August, 1985. Field determination of impacts to the desert tortoise (transects), development of mitigation procedures, and implementation of mitigation along two routes of the HVDC Transmission Line in southern Nevada and southeastern Utah. Also, monitoring of sensitive flora and tortoises during construction. Consultant to E. Linwood Smith and Associates, Tucson, Arizona.

Los Angeles Department of Water and Power, Sylmar-Celilo (HVDC) Transmission Line Upgrade, Owens Valley, California. July, 1984 to December, 1987. Field determination of impacts to special-status flora and wildlife and development of mitigation procedures along the line from Sylmar, California north to Nevada. Construction monitoring and crew education. Consultant to Applied Conservation Technologies, Inc., Newport Beach, California.

Mines and Aggregate Operations:

Ballast Rock Project, Hinkley, California. 2002- continuing. Special-status species impacts assessments, surveys. Special-status plants and animals of greatest concern included desert

tortoise, Mohave ground squirrel, burrowing owl, chuckwalla, Mojave monkeyflower and Barstow woolly sunflower. Consultant to Resource Design Technology, Inc., Folsom, California.

S and V Cinder Mine, Big Pine, California. 2002. Baseline, quantitative vegetation surveys for SMARA compliance. Consultant to Resource Design Technology, Inc., Folsom, California.

Lehigh South (Calaveras) Cement (limestone, shale), Shasta County, California. 1998, continuing. Field surveys, biological impacts assessment, reclamation plans, Shasta salamander 2081, Shasta salamander research, revegetation. Consultant to Resource Design Technology, Inc., Folsom, California.

Carone Properties (hard rock), Napa County, California. 2000, continuing. Field surveys, biological impacts assessment, California red-legged frog issues. Consultant to Resource Design Technology, Inc., Folsom, California.

RMC Lonestar (aggregate), Tulare County, California. 1997, continuing. Biological inventory and impacts assessment; Valley Elderberry Longhorn Beetle surveys; wetlands issues; biological portion of EIR. Consultant to RMC Lonestar, Pleasanton, California, and Resource Design Technology, Inc., Folsom, California.

RMC Pacific Materials (hard rock), Fresno, California. 1999, continuing. Field studies, impacts assessment. Consultant to Resource Design Technology, Inc., Folsom, California.

Lehigh South (Calaveras) Cement (limestone), Tehachapi, California. 1999, continuing. Field studies, impacts assessment. Consultant to Resource Design Technology, Inc., Folsom, California.

Last Chance Sand and Gravel (aggregate), Beatty, Nevada. 1998-9 Biological consultant for all phases of project. Surveys for desert tortoise, special-status plants, mammals, reptiles, birds. Consultant to Bill Marchand (operator), Beatty, Nevada.

San Benito Supply (aggregate). 1997-present. Vegetation survey to determine baseline conditions for SMARA reclamation compliance; developed revegetation plan. Consultant to Lilburn Corporation, San Bernardino, California, and Resource Design Technology, Inc., Folsom, California.

M&T Chico Ranch (aggregate), Butte County, California. 1997-present. Wrote biological portion of EIR. Consultant to Resource Design Technology, Inc., Folsom, California.

Granite Construction Co. (aggregate), Whitewater, California. 1997. General species inventory; surveyed for desert tortoises, special-status plants, mammals, reptiles, birds. Consultant to Lilburn Corporation, San Bernardino, California.

Teichert Aggregates (aggregate), Esparto, Yolo County, California. 1996. Wrote biological portion of EIR. Consultant to Lilburn Corporation, Folsom, California.

Teichert Aggregates (aggregate), Woodland, Yolo County, California. 1996. Wrote biological portion of EIR. Consultant to Lilburn Corporation, Folsom, California.

Cache Creek Aggregates (aggregate), Yolo County, California. 1996. Wrote biological portion of EIR. Consultant to Lilburn Corporation, Folsom, California.

Asphalt Construction Company (aggregate), Ridgecrest, California. 1995. Vegetation surveys to determine baseline and regrowth conditions for SMARA compliance. Consultant to Lilburn Corporation, Folsom, California.

Castle Mountains Gold Mine (mineral), San Bernardino County, California, 1995, 1996. Assessment of desert tortoise impacts from proposed expansion (field surveys, habitat analysis). Also included re-evaluation of existing mitigation and compensation measures. Consultant to Lilburn Corporation, Folsom, California.

Santa Fe Pacific Gold (mineral), Glamis, California. 1994. (1) Examination of potential drilling sites for desert tortoise impacts (field surveys) and (2) developed proposal to assess remaining tortoise habitat on mine site. Consultant to Santa Fe Pacific Gold Corporation, Reno, Nevada.

Goldfields Mining Company (mineral), Brawley, California. 1991-92. Field surveys and habitat analysis of gold mine site. Co-authored Biological Assessment. Developed mitigation plan and impacts studies. Led large crew for desert tortoise clearance surveys. Trained core group of facility employees in tortoise handling. Consultant to Environmental Solutions, Inc., Irvine, California.

Cactus Gold Mine (mineral), Mojave, California. August, 1990. Assessment of tortoise presence on site of heap leach pad extension. Consultant to McClenahan and Hopkins Associates, Inc., San Mateo, California.

Waste Facilities

Mesquite Regional Landfill, El Centro, California. 1992 to present. Led large crew to conduct desert tortoise surveys for determining impacts and mitigation to tortoises from construction and maintenance of proposed landfill and associated rail spur. Co-authored Biological Assessment. Expert witness to address activists' concerns. Developed research program (mitigation) to track ecosystem health effects from landfill development. Consultant to Environmental Solutions, Inc., Irvine, California, Arid Operations, El Centro, California, and Resource Design Technology, Inc., Folsom, California.

NORCAL Sanitary Landfill, Victorville, California. Spring, 1997. General species inventory on expansion area; special surveys for desert tortoises, special-status plants, mammals, reptiles, birds. Consultant to Lilburn Corporation, San Bernardino, California.

NORCAL Sanitary Landfill, Landers, California. Spring, 1997. General species inventory on expansion area; special surveys for desert tortoises, special-status plants, mammals, reptiles, birds. Consultant to Lilburn Corporation, San Bernardino, California.

U.S. Ecology/California Department of Health Services Low-level Radioactive Waste Facility, Ward Valley, California, March. 1987 to 2001. Determined impacts to and developed mitigation for desert tortoises in association with construction and maintenance of proposed facility. Developed and conducted a ~10 year, continuous research project on tortoise translocation that focused on effects to reproduction, movements, physiology and mortality. Study cohort included ~150 radiotelemetered tortoises. Principal author of two biological assessments. Reviewer of numerous project opponents' papers and author of response documents. Consultant to U.S. Ecology, Rocklin, California.

RAIL-CYCLE (Waste Management of North America, Inc. and the Atchison, Topeka, and Santa Fe Railway Company). 1994, 1997. Expert witness for biological impacts at County of San Bernardino hearings for proposed landfill. Consultant to Waste Management of North America, Inc., Pasadena, California.

RAIL-CYCLE, Amboy, California, 1991 - Led large crew for desert tortoise surveys to determine impacts and mitigation to tortoises from construction and maintenance of proposed landfill. Report submitted to Ecological Research Services, Claremont, California and Jacobs Engineering, Pasadena, California.

Yucca Mountain Nuclear Waste Project, Nevada Test Site, Nevada. Fall 1989-90. Determination of tortoise abundance, distribution and habitat associations on proposed site of high-level nuclear waste. With Environmental Science Associates, San Francisco, California

Hidden Valley Resources Toxic Waste Disposal Facility, Newberry Springs, California. June to September 1988. Determination of impacts to and mitigation for desert tortoises from construction and maintenance of facility. Transects and habitat analyses. Consultant to J&M Land Restoration, Bakersfield, California.

Non-Military Government Contracts:

U.S. Army Corps of Engineers Construction Engineering and Research Laboratory (CERL). Spring 2003. Trained biologists in desert tortoise telemetry techniques, handling, and behavior for tortoise activity project near Barstow, California. Contacts: Mr. Andrew Walde and Dr. Larry Pater.

Joshua Tree National Monument, Twentynine Palms, California. 1987-88. Assessed status of the desert tortoise throughout the monument (transects, habitat analyses); developed relocation techniques and assessed sites for tortoises turned in to headquarters. Contact: Dr. Jerry Freilich.

Bureau of Land Management, Las Vegas, Nevada. June to October, 1987 (employee). Developed new method for estimating tortoise densities from transects; led team to estimate tortoise densities from transects throughout southern Nevada; developed habitat assessment technique from quantitative habitat analyses. Supervisor: Sidney Slone.

Nevada Department of Wildlife, Las Vegas, Nevada. Spring, 1984 to 1989. Development of a comprehensive, computerized data base of locations and habitat associations of all vertebrate taxa in Nevada through field, literature, and museum collections' surveys. Field research included live-trapping of all taxa, quantitative censuses of birds, rodents, and carnivores, statistical analyses, and development of baseline research methods for the Department of Wildlife. Contract No. 84-33.

Bureau of Land Management, Riverside, California. March to August, 1980. Independent, 60-day quantitative and qualitative study of a population of desert tortoises in eastern California. Included extensive analysis of the site's vegetation. Technical report emphasized the relationship of primary production, disturbance, and geo-characteristics to the population demographics of the desert tortoise in this area. Contract No. CA-060-CTO-3.

Bureau of Land Management, Las Vegas, Nevada. March, 1979 to August, 1982. Sole project to date to determine the distribution and relative densities of the desert tortoise in Nevada; also delineated habitat requirements of the tortoise in Nevada. Solitary research involving foot-transecting over 450 miles in Clark, Lincoln, and Nye counties. Also included qualitative and quantitative examinations of three populations of tortoises similar to those mentioned above. Contract No. YA-512-CT9-90.

Bureau of Land Management, Riverside, California. Spring, 1979. Independent, 60-day quantitative and qualitative study of a population of desert tortoises in the western Mojave Desert. Included aforementioned aspects. Contract No. CA-960-CT9-106.

Bureau of Land Management, Riverside, California. Spring, 1978. Independent 30-day quantitative and qualitative study of population of desert tortoises in eastern San Bernardino County, California. Included aforementioned aspects. Contract No. CA-060-CT8-000042.

California Department of Fish and Game, Chino, California. June to December, 1978 - Independent, foot-transecting of over 400 miles of the Mojave and Colorado deserts in California to assist in the determination of the status of the desert tortoise in California. Additional study of pupfish (*Cyprinodon maculatus*) in the Salton Sea, California.

ASSOCIATE PROJECT BIOLOGIST:

Mojave Ground Squirrel Behavioral Project. 2003. Trapping and telemetry with Drs. Phil Leitner and John Harris near Ridgecrest, California.

Eagle Mountain Landfill, Desert Center, California. 1996. Desert tortoise surveys on proposed site. Consultant to Circle Mountain Consultants, Wrightwood, California.

City of Rosamond General Plan. 1992. Trapping ssessment of Mohave Gound Squirrel population status. Consultant to CWESA, Sanger, CA.

Clark County Desert Tortoise Habitat Conservation Plan. 1990-91. Reviewer and partial author of HCP and member of biological technical team; also included field assessments of tortoise habitat quality. Consultant to RECON, San Diego, California.

Desert Tortoise Council. 1990-present. Requested by Council to present techniques for finding tortoises, identifying sign and analyzing data to biologists, developers, and consultants at annual techniques workshop.

American Motorcycle Association/U.S. Fish and Wildlife Desert Tortoise Listing. 1989-90. Review of U.S. Fish and Wildlife Service's basis for Emergency Endangered Listing of the desert tortoise. Examination of all available data, both published and unpublished, to analyze status of the desert tortoise. Draft report heavily cited by U.S. Fish and Wildlife as support for their final listing determination. Subcontracted to Biosystems Analysis, Inc., Tiburon, California.

Salt River Project, Quemado, New Mexico. September, 1985, 1987. Determination of impacts to vegetation and evaluation of re-vegetation success (quantitative vegetation transects) from mining coal reserves. In association with E. Linwood Smith and Associates, Tucson, Arizona.

Sonora Mining Corporation, Sonora, California. Fall, 1986. Assessment of impacts to fish populations (electro-shocking)in Woods Creek, from mining operations. CWESA, Sanger, California.

UNOCAL Platform Irene Project, Lompoc, California. September, 1986. Monitoring of pipeline construction for sensitive wildlife and floral issues. CWESA, Sanger, California.

Southern California Edison, Kingman, Arizona. May, 1986. Botanical survey along proposed transmission line route; Kingman, Arizona to Boulder City, Nevada. Biosystems Analysis Inc., Santa Cruz, California

Belridge Cogeneration Project, Bakersfield, California. Spring, 1985. Field survey of the blunt-nosed leopard lizard (Gambelia silus) and analysis of vegetation. CWESA, Sanger, California.

CWESA , Sanger, California- September, 1984. Field survey of the blunt-nosed leopard lizard in the San Joaquin Valley, California, to determine population dynamics and ecology.

U.S. Forest Service, Klamath Forest, California. Summer, 1983. Project to determine the population dynamics, behavior, and effective control techniques of pocket gophers (Thomomys bottae) in red fir clearcuts. Field work included use of radio telemetry and live trapping. Walter E. Howard, U.C., Davis.

Southwest Biological Associates, Encinitas, California. Winter, 1978. Literature search on the herpetofauna of central and southern California.

Bureau of Land Management, Riverside, California. Summer, 1978 - Field study of the effects of grazing and urbanization on reptiles at two Mojave Desert sites.

EDUCATIONAL EMPLOYMENT

Collector and preparer, Museum of Vertebrate Zoology, Wildlife and Fisheries Biology, University of California, Davis, California. 1983-1985 - Included trapping, preparation (skeletal and study skin preparation, live-pose taxidermy, freeze-drying), and cataloguing of specimens.

Teaching Assistant, U. C. Davis. 1983-85. Courses in wildlife ecology and museum science.

Teaching Assistant, California State University, Northridge. September, 1981 to June, 1982. Courses in general biology, physiological ecology and local California flora and fauna.

PUBLICATIONS AND PRESENTED PAPERS (not including technical reports associated with most projects)

Karl, A. 1980. The distribution and relative densities of the desert tortoise, *Gopherus agassizi,* in Nevada. *In*: K. Hashagen, ed., Proceedings of the 1980 Desert Tortoise Council Symposium, Riverside, California. Pp 75-87. (Paper also presented.)

Karl, A. 1981. The distribution and relative densities of the desert tortoise, *Gopherus agassizi,* in Nevada. Part II. *In*: K. Hashagen, ed. Proceedings of the 1981 Desert Tortoise Council Symposium, Riverside, California. Pp76-92. (Paper also presented.)

Karl, A. and E. Smith. 1984. - Densities of and impacts to the desert tortoise, *Scaptochelys agassizii,* along the proposed 500 kv D.C. Intermountain Power Project Transmission Line in Nevada and Utah. Paper presented at the Desert Tortoise Council Symposium, Lake Havasu, Arizona.

Karl, A. 1994. Reproduction in desert tortoises - ecological and evolutionary perspectives. Paper presented at both the 1994 Desert Tortoise Council Symposium, Las Vegas, Nevada and the American Society of Ichthyologists and Herpetologists Meetings, Los Angeles, California.

Karl, A. 1995. Indirect censusing methods for desert tortoises. Paper presented at an invitational workshop on censusing desert tortoises. Reno, Nevada.

Karl, A. 1997. Factors affecting reproduction of desert tortoises and resultant implictions for management. Paper presented at the 1997 Desert Tortoise Council Symposium, Las Vegas, Nevada

Karl, A. 1997. Reproductive strategies of the desert tortoise. Paper presented at the 1997 American Society of Ichthyologists and Herpetologists Meetings, Seattle, Washington.

Karl, A. 1998. Growth patterns of the desert tortoise in an East Mojave population. Paper presented at the 1998 Desert Tortoise Council Symposium, Tucson, Arizona.

Karl, A. 2002. Revised techniques for estimating desert tortoise abundance in the Fort Irwin National Training Center Expansion Area in 2001 and the results of those studies. Paper presented at the 2002 Desert Tortoise Council Symposium, Palm Springs, California.

Karl, A. In prep. Drought effects on the desert tortoise and population recovery.

Freilich, J., R. Camp, J. Duda and A. Karl. 2004. Problems with sampling desert tortoises:: a simulation analysis based on field data. In press.

MEMBERSHIPS

California Native Grass Association
California Native Plant Society
Desert Tortoise Council
Herpetologists' League, Inc.
Ecological Society of America
Society for the Study of Amphibians and Reptiles
Society for Ecological Restoration

APPENDIX B
TENTATIVE EXHIBIT AND DECLARATION LIST

APPLICANT'S TENTATIVE EXHIBIT AND DECLARATION LIST

VICTORVILLE 2 HYBRID POWER PROJECT
Docket No. 07-AFC-01
(as of 3/28/08)

Exhibit No.	CEC Log No.	Date	Description	Topic Area	Sponsoring Party	Pages
1.	37225	06/29/06	AFC Section 1.0 – Executive Summary	Project Description	Inland / T. Barnett	16
2.	37225	06/29/06	AFC Section 2.0 – Project Description	Project Description	Inland / T. Barnett	80
3.	37225	06/29/06	AFC Section 3.0 – Project Objectives and Need	Project Description	Inland / T. Barnett	2
4.	37225	06/29/06	AFC Section 4.0 - Closure	Various	ENSR / A. Bachrach	2
5.	37225	06/29/06	AFC Section 5.0 – Project Alternatives	Alternatives	ENSR / A. Bachrach; Inland / T. Barnett (Section 5.4)	25
6.	37225	06/29/06	AFC Section 6.1 - General	Various	ENSR / A. Bachrach	4
7.	37225	06/29/06	AFC Section 6.2 – Agriculture and Soils	Soil & Water Resources	ENSR / S. Bilodeau	27
8.	37225	06/29/06	AFC Section 6.3 – Air Quality	Air Quality	ENSR / S. Head	91
9.	37225	06/29/06	AFC Section 6.4 – Biological Resources	Biological Resources	AMEC / T. Egan	78
10.	37225	06/29/06	AFC Section 6.5 – Cultural Resources	Cultural Resources	WSA / J. Allan	36
11.	37225	06/29/06	AFC Section 6.6 – Geologic Hazards and Resources	Geology	ENSR / S. Bilodeau	27
12.	37225	06/29/06	AFC Section 6.7 – Hazardous Material Handling	Hazardous Materials	ENSR / R. Kingsley	26
13.	37225	06/29/06	AFC Section 6.8 – Land Use	Land Use	ENSR / E. Copley	30
14.	37225	06/29/06	AFC Section 6.9 – Noise	Noise	Acentech / R. Nugent	21
15.	37225	06/29/06	AFC Section 6.10 – Paleontological Resources	Paleontology	SWCA / C. Corsetti	21
16.	37225	06/29/06	AFC Section 6.11 – Public Health	Public Health	ENSR / G. Wolffe	40
17.	37225	06/29/06	AFC Section 6.12 – Socioeconomics	Socioeconomics	ENSR / E. Copley	43
18.	37225	06/29/06	AFC Section 6.13 – Traffic and Transportation	Traffic & Transportation	Wilson / J. Wilson; Inland / T. Barnett (Section 6.13.3.3)	34
19.	37225	06/29/06	AFC Section 6.14 – Transmission Line Safety and Nuisance	Transmission Facilities	Navigant / D. Larsen	21
20.	37225	06/29/06	AFC Section 6.15 – Visual Resources	Visual Resources	ENSR / Merlyn Paulson	35
21.	37225	06/29/06	AFC Section 6.16 – Waste Management	Waste Management	ENSR / A. Bachrach	17
22.	37225	06/29/06	AFC Section 6.17 – Water Resources	Water Resources	ENSR / A. Bachrach	23

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Exhibit No.	CEC Log No.	Date	Description	Topic Area	Sponsoring Party	Pages
23.	37225	06/29/06	AFC Section 6.18 – Worker Safety	Worker Safety	ENSR / A. Bachrach	24
24.	37225	06/29/06	AFC Appendix A – Surrounding Parcels	Project Description	Inland / T. Barnett	122
25.	37225	06/29/06	AFC Appendix B – Site Parcels	Project Description	Inland / T. Barnett	9
26.	37225	06/29/06	AFC Appendix C – Preliminary Geotech Investigation Report	Geology	ENSR / S. Bilodeau	98
27.	37225	06/29/06	AFC Appendix D – Engineering Design Criteria	Facility Design	Inland / T. Barnett	90
28.	37225	06/29/06	AFC Appendix E – Therminol MSDS	Facility Design	ENSR / R. Kingsley	10
29.	37225	06/29/06	AFC Appendix F – System Impact Study	Facility Design	Navigant / D. Larsen	152
30.	37225	06/29/06	AFC Appendix G – Air Quality	Air Quality	ENSR / S. Head	271
31.	37225	06/29/06	AFC Appendix H – Biological Resources	Biological Resources	AMEC / T. Egan	529
32.	37225	06/29/06	AFC Appendix I – Cultural Resources	Cultural Resources	WSA / J. Allan	196
33.	37225	06/29/06	AFC Appendix J – Paleontological Resources	Paleontology	SWCA / C. Corsetti	32
34.	37225	06/29/06	AFC Appendix K – Public Health Supporting Documentation	Public Health	ENSR / G. Wolffe	20
35.	37225	06/29/06	AFC Appendix L – SCLA Letter	Traffic & Transportation	Inland / T. Barnett	4
36.	37225	06/29/06	AFC Appendix M – Phase I Environmental Site Assessment	Soil & Water Resources	ENSR / S. Bilodeau	361
37.	37225	06/29/06	AFC Appendix N – Will Serve Letters	Water Resources	ENSR / A. Bachrach	23
38.	39587	3/08/07	Application for Confidential Designation of cultural Resources Assessment Report	Cultural Resources	WSA / J. Allan	3
39.	39589	3/13/07	Draft Confidential Cultural Resources Assessment Report	Cultural Resources	WSA / J. Allan	500
40.	39667	3/08/07	Re-submittal Application for Confidentiality for Cultural Resources Assessment Report	Cultural Resources	WSA / J. Allan	3
41.	39934	4/06/07	Application for Certification Volume III Data Adequacy Supplement	Various	ENSR / A. Bachrach	207
42.	39938	4/05/07	Confidential Submittal – Emission Offset Diligence for Victorville Power Project	Air Quality	ENSR / S. Head	5
43.	40150	4/19/07	Applications for Authority to Construct and Permit to Operate	Air Quality	ENSR / S. Head	27

VICTORVILLE 2 HYBRID POWER PROJECT
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Exhibit No.	CEC Log No.	Date	Description	Topic Area	Sponsoring Party	Pages
44.	40178	4/26/07	Memorandum of Understanding between CA Dept of Fish & Game and Victor Valley Wastewater Reclamation Authority re: Discharge to the Mojave River Transition Zone	Water Resources	ENSR / A. Bachrach	8
45.	40346	5/03/07	Victorville Application for Prevention of Significant Deterioration Permit	Air Quality	ENSR / S. Head	108
46.	40410	5/03/07	Biological Assessment	Biological Resources	AMEC / T. Egan	2
47.	40430	5/15/07	Responses to Informal Data Requests Addressing Socioeconomics & Location of BLM Lands	Various	ENSR / E. Copley	5
48.	41332	7/02/07	Supplement to Application for Prevention of Significant Deterioration Permit	Air Quality	ENSR / S. Head	11
49.	N/A	N/A	Intentionally omitted	N/A	N/A	N/A
50.	41481	7/12/07	Responses to CURE Data Requests, Set 1	Various	ENSR / S. Head	2 (plus CD)
51.	41540	6/13/07	Application Completeness Determination - PSD Permit Application	Air Quality	ENSR / S. Head	4
52.	41644	7/23/07	Applicant's Responses to CEC Staff Data Requests #1-110; POS attached	Various	ENSR / A. Bachrach	124 (plus CD)
53.	41731	7/23/07	Request for Confidential Designation – Confidential Responses to Data Request Set 1 (1-111), Data Requests 24-50: Cultural Resources	Cultural Resources	WSA/ J. Allan	91
54.	41750	8/01/07	Victorville 2 Fogging Frequency Curve	Air Quality	ENSR / S. Head	3
55.	41789	8/03/07	Clarification of VV2 Project Socioeconomic Information	Socioeconomics	ENSR / E. Copley	2
56.	N/A	N/A	Intentionally omitted	N/A	N/A	N/A
57.	42131	8/28/07	Victorville 2 Hybrid Power Project Responses to CURE's Data Requests, Set 2	Various	ENSR / S. Head	99
58.	42189	9/04/07	August 6, 2007 Questions Regarding Victorville 2 PSD Application	Air Quality	ENSR / S. Head	4
59.	42338	9/12/07	Responses to CEC Supplemental Data Request	Various	ENSR / A. Bachrach	247

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Exhibit No.	CEC Log No.	Date	Description	Topic Area	Sponsoring Party	Pages
60.	42399	9/17/07	Correction of Error in Primary Records; Submission of New Archeological Site Records; Revision to Figure 5; Confirmation of Archeological Test Plan: Request for Confidential Designation	Cultural Resources	WSA / J. Allan	59
61.	42410	9/24/07	Email to J. Kessler and attachment re: Write- up summarizing the engineering aspects of the solar array	Traffic & Transportation	Inland / T. Barnett	5
62.	Not assigned	9/27/07	Letter of Transmittal from ENSR to John Kessler with Supplemental Cultural Resources Data Request Responses (DRs 29, 32, 33, and 36)	Cultural Resources	WSA / J. Allan	62
63.	42597	10/01/07	Letter to MD AQMD re Preliminary Determination of Compliance	Air Quality	ENSR / S. Head	2
64.	42707	10/09/07	Submitted a document entitled, "Parabolic Trough Mirror Design Prevents Escape of Reflected Incident Rays"	Traffic & Transportation	Inland / T. Barnett	6
65.	42708	10/09/07	Applicant's Response to Questions Concerning HTF VV2 Leak Detection	Hazardous Materials	ENSR / R. Kingsley	19
66.	42913	10/19/07	Supplementary Traffic and Transportation Evaluation	Traffic & Transportation	Wilson / J. Wilson	12
67.	43519	11/28/07	Supplementary Responses to Data Requests 37 and 85 from Data Request Set 1 (1-110)	Cultural Resources Traffic & Transportation	WSA/ J. Allan (Response 37) Wilson/ J. Wilson (Response 85)	22
68.	43703	12/06/07	Letter from SCLA re Request for Agency Comments on the PSA	Traffic & Transportation	Inland / T. Barnett	2
69.	43845	11/26/07	Application for Confidential Designation for Responses to Data Request Set 1 and Cultural Resources	Cultural Resources	WSA / J. Allan	50
70.	43933	1/02/08	City of Victorville's Comments on the PSA	Various	ENSR / A. Bachrach	24
71.	44314	1/21/08	Application for Confidential Designation for Responses to Data Request Set 1 Request 41	Various	WSA / J. Allan	47
72.	44328	1/08/08	Repeated Application for Confidentiality RE: Archeological Survey of the Proposed Potable Water Line Route	Cultural Resources	WSA / J. Allan	102

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Exhibit No.	CEC Log No.	Date	Description	Topic Area	Sponsoring Party	Pages
73.	44650	1/08/08	Comments of ENSR on Vegetation Impacts of Nitrogen Deposition and Vegetation Impacts of Cooling Tower Drift	Air Quality	ENSR / S. Head	3
74.	45162	1/17/08	Biological Assessment Addendum	Biological Resources	AMEC / T. Egan	12
75.	45206	1/28/08	Letter from Inland Energy Regarding Supplement to Application for Prevention of Significant Deterioration	Air Quality	ENSR / S. Head	3
76.	45207	1/24/08	Letter Comments of Abengoa Solar Inc. Regarding Solar Glare	Traffic & Transportation	Inland / T. Barnett	5
77.	45237	2/01/08	Habitat Compensation Ratios for VV2 Power Project	Biological Resources	AMEC / T. Egan	3
78.	45262	2/05/08	Letter addressing Mojave Ground Squirrel trapping	Biological Resources	AMEC / T. Egan	2
79.	45263	2/05/08	Table 2.1: Hydrologic Analyses for Pre and Post Development Conditions	Soil & Water Resources	ENSR / A. Bachrach	5
80.	N/A	N/A	Intentionally omitted	N/A	N/A	N/A
81.	N/A	N/A	Intentionally omitted	N/A	N/A	N/A
82.	45411	2/15/08	Cultural Resources, Confidentiality Application, Victorville 2 Hybrid Power Project, Docket No. 07-AFC-1 (letter only)	Cultural Resources	WSA / J. Allan	2
83.	45412	2/19/08	Biological Opinion for the Victorville 2 Hybrid Power Project, San Bernardino County, California (1-8-07-F-67)	Biological Resources	AMEC / T. Egan	46
84.	N/A	N/A	Intentionally omitted	N/A	N/A	N/A
85.	45466	2/25/08	Letter from the City requesting that the Biological Opinion be included as part of the PSD permit application; Biological Opinion dated January 23, 2008 attached	Air Quality	ENSR / S. Head	43
86.	45571	3/04/08	Cover letter with attachment regarding Desert Tortoise Translocation Plan from Inland Energy; POS attached	Biological Resources	AMEC / T. Egan	58
87.	45666	3/11/08	Application for Incidental Take of Endangered Species	Biological Resources	AMEC / T. Egan	267
88.	45667	3/11/08	Biological Assessment Second Addendum	Biological Resources	AMEC / T. Egan	93

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Exhibit No.	CEC Log No.	Date	Description	Topic Area	Sponsoring Party	Pages
89.	Pending	8/00/06	Habitat Compensation in the West Mojave Urban Interface: Surety and Equitable Precepts; with attached (1) West Mojave Plan, Final Environmental Impact Statement (Bureau of Land Management 2005) Section 2.2.2 Compensation Framework; and (2) CDFG issued CESA Section 2081 Permits from projects located near VV2; California Statewide Desert Tortoise Management Policy, October 1992, prepared by Bureau of Land Management and California Department of Fish and Game	Biological Resources	AMEC / T. Egan	212
90.	Pending	3/28/08	Declaration of Elizabeth Copley regarding Land Use and Socioeconomics	Land Use and Socioeconomics	ENSR / E. Copley	5
91.	Pending	3/28/08	Declaration of Gregory Scott Wolffe regarding Public Health	Public Health	ENSR / G. Wolffe	
92.	Pending	3/28/08	Declaration of Sally Bilodeau regarding Soil and Water Resources and Geology	Soil and Water Resources and Geology	ENSR / S. Bilodeau	11
93.	Pending	3/28/08	Declaration of David T. Larsen regarding Transmission Facilities and Facility Design	Transmission Facilities and Facility Design	Navigant / D. Larsen	7
94.	Pending	3/28/08	Declaration of Merlyn Paulson regarding Visual Resources	Visual Resources	ENSR / M. Paulson	4
95.	Pending	3/28/08	Declaration of Arrie Bachrach regarding Project Alternatives, Waste Management, Water Resources, Worker Safety, and Various Project Management Issues	Project Alternatives, Waste Management, Water Resources, Worker Safety, and Various Project Management Issues	ENSR / A. Bachrach	6
96.	Pending	3/28/08	Declaration of Cara Corsetti regarding Paleontology	Paleontology	SWCA / C. Corsetti	6
97.	Pending	3/28/08	Declaration of Thomas M. Barnett regarding Project Description, Facility Design, Transmission Line, Efficiency, Reliability, and Traffic and Transportation (Non-Vehicular)	Project Description, Facility Design, Transmission Line, Efficiency, Reliability, and Traffic and Transportation (Non-Vehicular)	Inland / T. Barnett	3
98.	Pending	3/28/08	Declaration of Sara Head regarding Air Quality	Air Quality	ENSR / S. Head	6
99.	Pending	3/28/08	Declaration of James M. Allan regarding Cultural Resources	Cultural Resources	WSA / J. Allan	7
100.	Pending	3/28/08	Declaration of Russell Kingsley regarding Hazardous Materials	Hazardous Materials	ENSR / R. Kingsley	5

VICTORVILLE 2 HYBRID POWER PROJECT
Docket No. 07-AFC-01

Exhibit No.	CEC Log No.	Date	Description	Topic Area	Sponsoring Party	Pages
101.	**Pending**	**3/28/08**	**Declaration of Ramon Nugent regarding Noise**	**Noise**	**Acentech / R. Nugent**	**4**
102.	**Pending**	**3/28/08**	**Declaration of John D. Wilson regarding Traffic and Transportation (Vehicular)**	**Traffic and Transportation (Vehicular)**	**Wilson / J. Wilson**	**4**
103.	**Pending**	**3/28/08**	**CV of Thomas Egan**	**Biological Resources**	**AMEC / T. Egan**	**2**
104.	**Pending**	**3/28/08**	**CV of Alice Karl**	**Biological Resources**	**Alice Karl & Associates/ A. Karl**	**14**

STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 07-AFC-1
	)	
Application for Certification,	)	**ELECTRONIC PROOF OF SERVICE**
for the VICTORVILLE 2	)	**LIST**
HYBRID POWER PROJECT	)	
by the City of Victorville	)	**(revised September 6, 2007)**
	)	
	)	

☒ Transmission via electronic mail and by depositing one original signed document with FedEx overnight mail delivery service at Costa Mesa, California with delivery fees thereon fully prepaid and addressed to the following:

DOCKET UNIT

CALIFORNIA ENERGY COMMISSION
Attn: DOCKET NO. 07-AFC-1
1516 Ninth Street, MS-4
Sacramento, California 95814-5512
docket@energy.state.ca.us

☒ Transmission via electronic mail addressed to the following:

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DECLARATION OF SERVICE

I, Paul Kihm, declare that on March 28, 2008, I deposited a copy of the attached:

APPLICANT'S PREHEARING CONFERENCE STATEMENT

with FedEx overnight mail delivery service at Costa Mesa, California with delivery fees thereon fully prepaid and addressed to the California Energy Commission. I further declare that transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service List above.

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 28, 2008, at Costa Mesa, California.

Paul Kihm